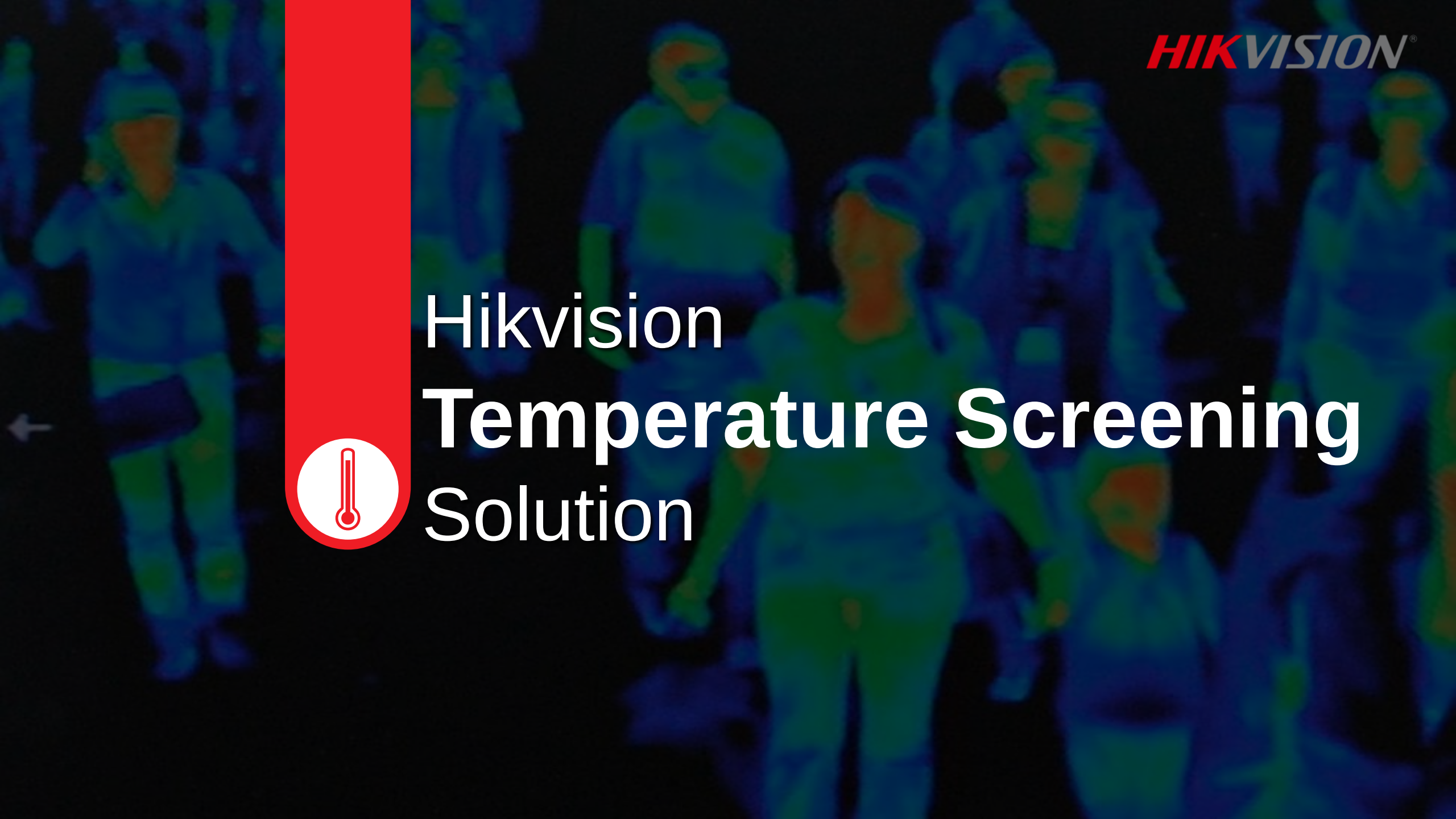
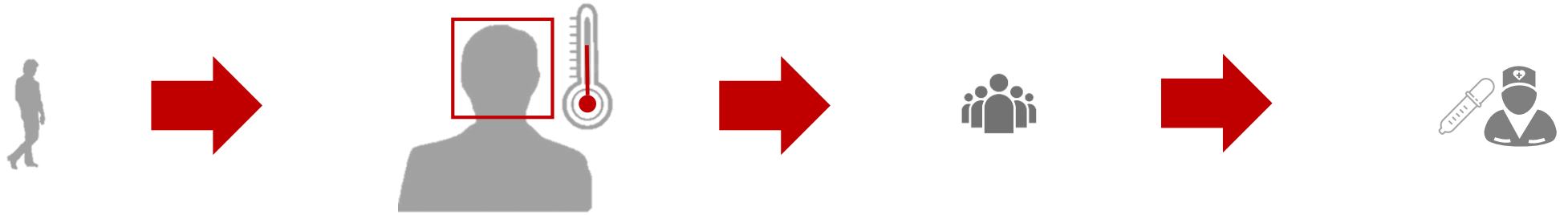


Hikvision
Temperature Screening
Solution

Solution Business Flow



1. Entering
2. Human skin-surface temperature measurement
3. Locating potential elevated temperature
4. Double check with mercury or ear thermometers.

Fast preliminary temperature screening without contact

SAFE

Distant and accurate check without physical contact, reducing cross-infection possibilities.

EFFICIENT

Automatic alarm triggering, reducing manpower invested.

ADAPTABLE

Multiple product types, easy to deploy, and suitable for different scenarios.

TRACEABLE

Combining temperature, image and face identification for easy management and query.

Solution Overview

Solution 1 Temperature Screening with Fast Deployment

- ✓ Entrances with short-term requirements
- ✓ Unsuitable for complicated wiring and installation

1-1 Thermographic Cameras

Visualized Bi-spectrum Live View

■ With Thermographic Camera

1-2 Wireless Devices

Easy Connection, Cable Free

■ With Handheld Thermographic Camera

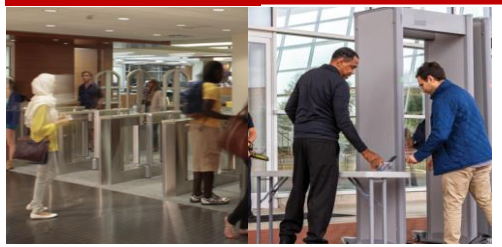
1-3 Metal Detector Doors

Real-time Sound and Light Alarm

■ With Metal Detector Door

Solution Overview

Solution 2 Temperature Screening with Access Control



- ✓ Indoor space without wind
- ✓ Security control and Temperature screening at the entrance which has a route to guide people flow

Touch-Free, Access is Easier but Safer

■ With MinMoe Wall-Mounting Touch-free Temperature Screening Terminal

Solution 3 Group Temperature Screening

- ✓ Indoor open space without wind
- ✓ Large people flow
- ✓ Temperature screening on crowds

High-risk Group Screening with High Efficiency

■ With Thermographic Bullet Camera

Solution Overview

Solution 4 Temperature Screening on Patrol

- ✓ Indoor open space without wind
- ✓ Patrolling without a fixed route

Anytime, Anywhere, Just one click.

- With Handheld Thermographic Camera

Solution 5 Temperature Screening & Mask Detection

- ✓ Indoor open space without wind
- ✓ Face recognition with mask on

Intuitive Demonstration

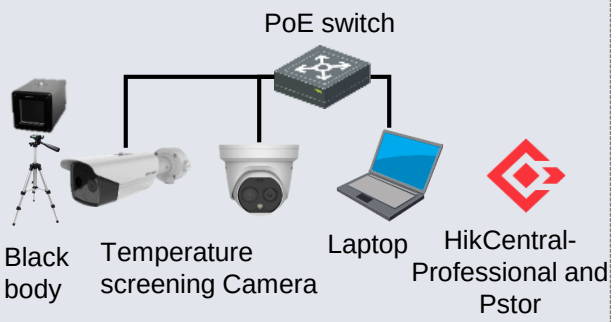
- With Thermographic Camera & DeepinMind NVR

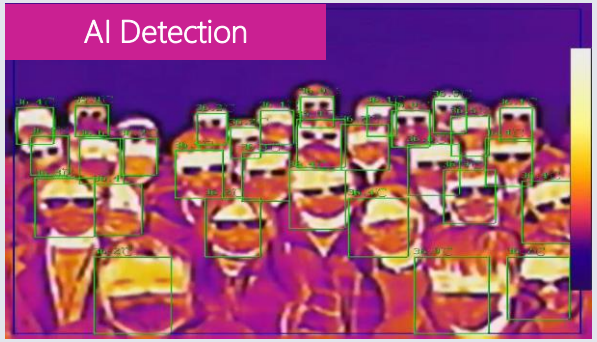
1.- 1 Temperature Screening with Fast Deployment – Thermographic Cameras

Visualized Bi-spectrum Live View

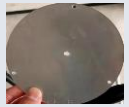
Solution Introduction

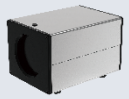
- Indoor space without wind
- Route for passenger flow is recommended
- 5 minutes' stay after entrance is recommended
- Use the Black Body calibrator to improve the accuracy to ±0.3℃
- **Local video storage** with HikCentral & pStor, no need for NVR





Thermographic Bullet Camera


Tripod Adaptor


Black body (optional)

PoE Switch

Thermographic Turret Camera

Tripod

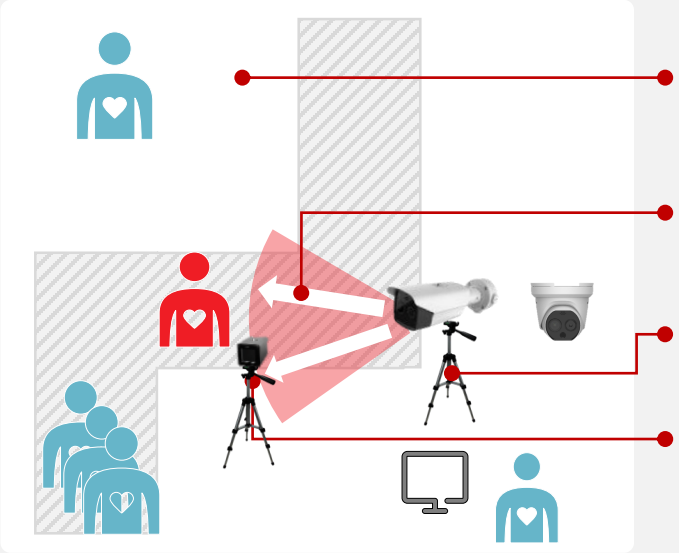
HikCentral-Professional and Pstor

Laptop

Product Design

DS-2TD1217B-3/6 PA
DS-2TD2617B-3/6 PA

- Thermal: 160 × 120, lens: 3 mm / 6 mm
- Optical: 2688 × 1520, lens: 4 mm / 8 mm
- Accuracy: ±0.5℃ (± 0.3℃ with black body)
- Measurement range: 30-45℃
- Working temperature: 10-35℃
- Embedded audio alarm for abnormal temperatures
- AI detection to reduce false alarms by other heat resources



Double check by mercury thermometer, ear thermometer etc.

Distance between camera and people: 0.8-1.5 m (3 mm lens) 1.5-3 m (6 mm lens)

Installation height is 1.5 m

Distance between camera and Black Body calibrator: 1 m (3 mm lens), 2 m (6 mm lens). Keep the Black Body in the upper left / upper right corner of the camera's view

Note: HikCentral Professional & Pstor only need i5 & 16G RAM Laptop

1-2 Temperature Screening with Fast Deployment - Wireless Devices

Easy Connection, Cable Free

Solution Introduction

- For building entrances, elevator halls, airport security checks, etc.
- **Wireless** deployment without cables (by the app or the iVMS-4200 client)
- Indoor space without wind
- Route for passenger flow is recommended
- 5 minutes' stay after entrance is recommended

Tripod

Handheld thermographic camera

Hik-Thermal app

Laptop

iVMS-4200

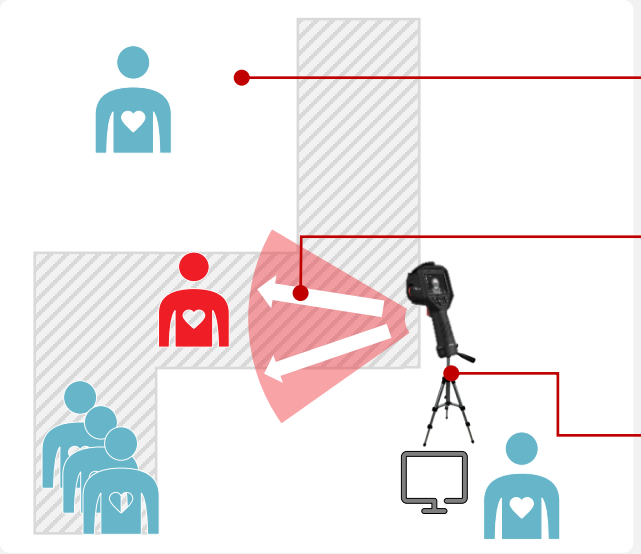
Hotspot

Handheld thermographic camera

Product Design

DS-2TP21B-6AVF/W

- Thermal resolution: 160 × 120 ;
- Optical resolution: 640 × 480 ;
- Accuracy: ±0.5℃
- Measurement range: 30-45℃
- 3.5" LCD touch screen
- Supports Wi-Fi hotspot, live view on PC or mobile client for less eye fatigue
- Supports real-time audio alarm and automatic uploading of screen captures



Double check by mercury thermometer, ear thermometer etc.

Distance between camera and people: 1 - 2m

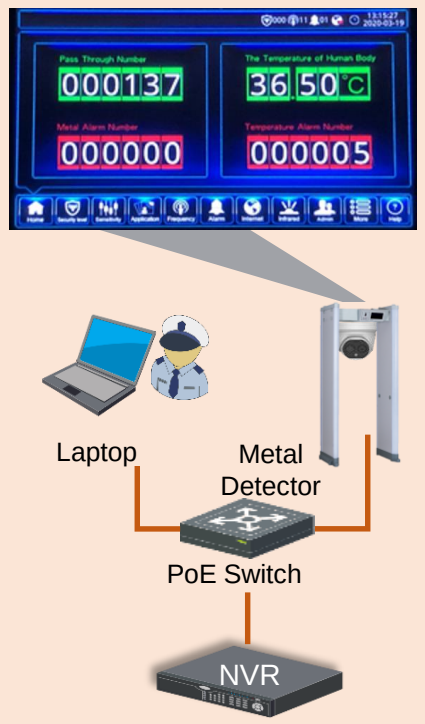
Installation height is 1.5 m

1- 3 Temperature Screening with Fast Deployment – Metal Detector Doors

Real-time Sound and Light Alarm

Solution Introduction

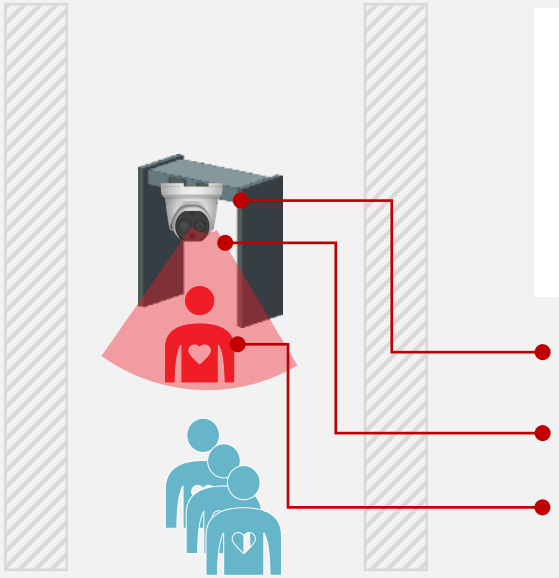
- Long-term Temperature screening with metal detector door for entrances of police station, subway station, airport security check, etc.
- Indoor space without wind.
- Thermographic turret camera fixed on walk-through metal detector door.



Product Design

ISD-SMG318LT-F

- 18 independent detection zones,
- 7-inch LCD temperature indicator
- 2,200 mm * 850 mm * 480 mm
- Thermal imaging resolution: 160 * 120
- Temperature measurement accuracy: ±0.5 ℃
- Temperature measurement range: 30-45 ℃
- Onboard audio alarm for abnormal temperature or metal.



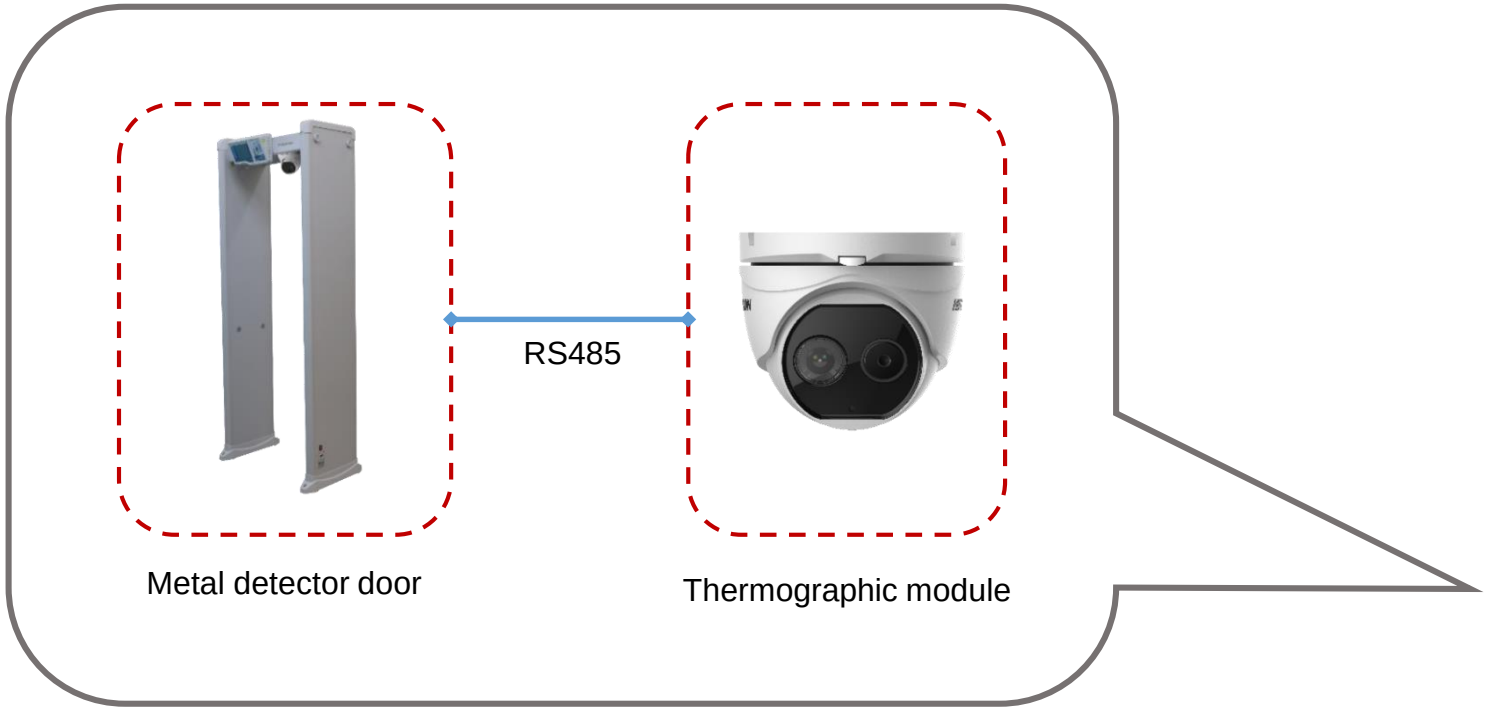
Real-time alarm monitoring

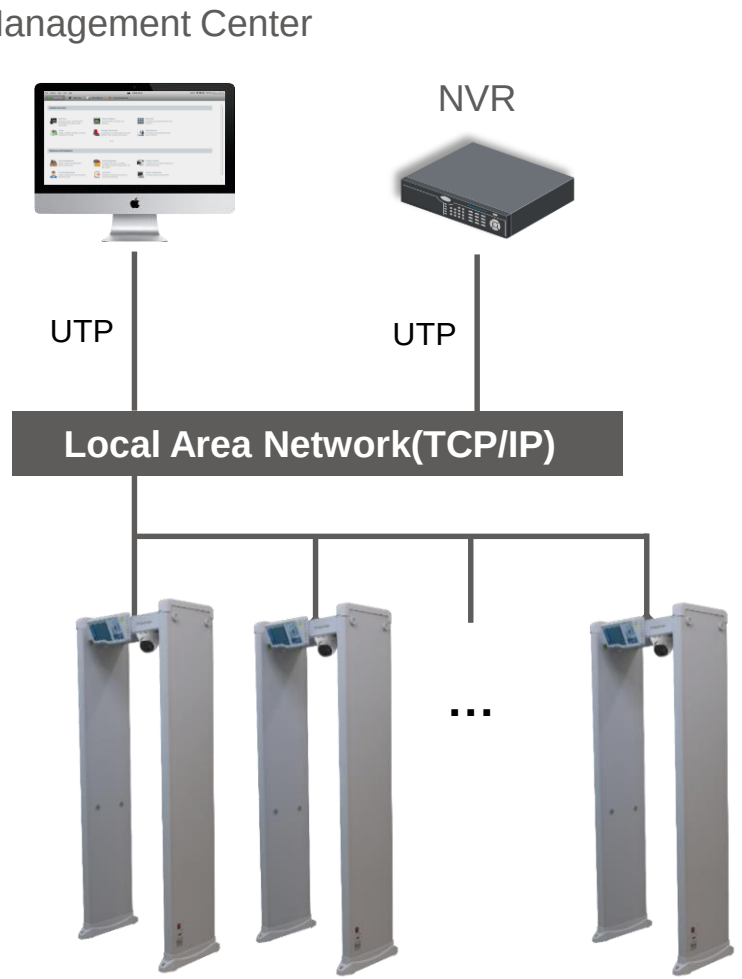
Double check by mercury thermometer, ear thermometer etc.

- Measurement distance: **0.8 m – 1.5 m**
- LCD screen to display the temperature
- Human height between **1.45 m - 1.85 m**

Solution Introduction

Solution topology diagram





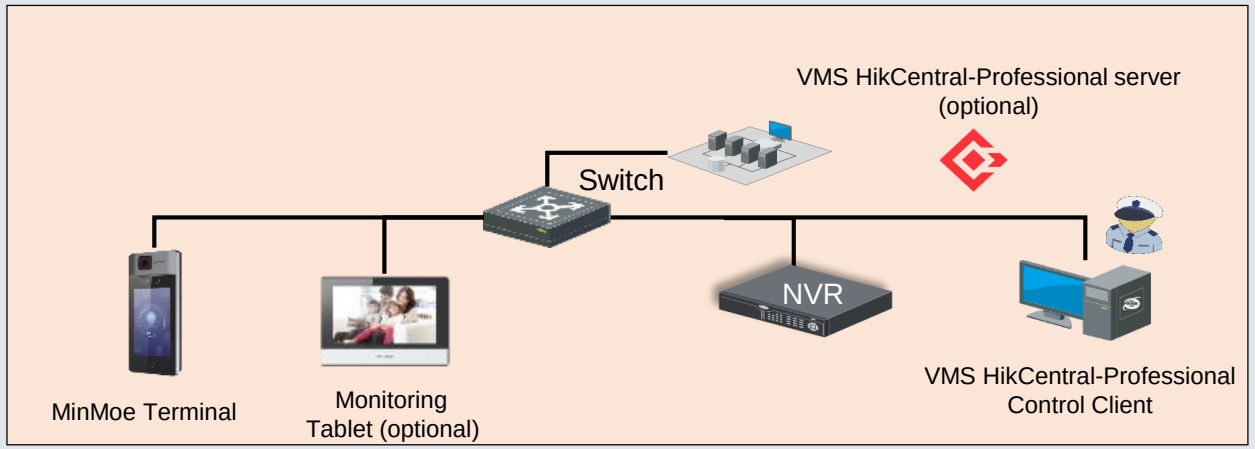
Temperature screening metal detector door solution

2 Temperature Screening with Access Control

Touch-Free, Access is Easier but Safer

Solution Introduction

- Long-term Temperature screening with access control for building related projects
- Indoor space
- Centralized management for access control with temperature records

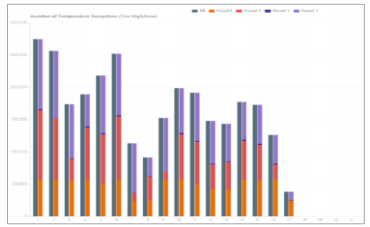


VMS Centralized management for access control system support:

① Exportable access records with temperature statistics

② Handling real-time Temperature alarms and tracing back records

③ Centralized management for multiple screening sites



Batch Access Verification Log

Basic Information

Export Time: 2020/02/10 15:01:28

Exported by: admin

Export Content: Name, ID, Card Number, Person Group, Device Time, Access Point, Access Result, Access Mode, Body Temperature

Report Time: 2019/10/22 00:00:00 - 2019/10/22 23:59:59

Total Number: 86

Name	ID	Card Number	Person Group	Device Time	Access Point	Access Result	Access Mode	Body Teperature
John Johnson	34564352	1232134341	Sales	2019/10/22 20:37:41	605Door 01_Cardreader 01	Succeed	Face Recognition	36.5℃
Black Griffin	34234913	2332123343	Sales	2019/10/22 19:56:34	605Door 01_Cardreader 01	Failed	Face Recognition Failed	36.3℃
Tim Duncan	89218471	2439278394	Sales	2019/10/22 19:53:22	605Door 01_Cardreader 01	Failed	Temperature higher than threshold	37.7℃
Roger Federer	21231234	2456457545	Manager	2019/10/22 18:36:43	605Door 01_Cardreader 01	Succeed	Face Recognition	36.7℃

Note: The NVR and HikCentral are both customized in this solution.

Normal temperature

Abnormal temperature

Double check by mercury thermometer, ear thermometer etc.

Product Design

- 7-inch LCD touch screen,2 Mega pixel wide-angle lens
- Built-in Mifare card reading module;
- Max.50,000 faces capacity , Max.50,000 cards;
- Temperature range: 30-45℃, accuracy: ±0.5℃;
- Supports 6 attendance status, including check in, check out, break in, break out, overtime in, overtime out
- Face Recognition Duration(1:N) ≤0.2s
- Authentication Distance: 0.5m ~ 1.5m

MinMoe Terminal

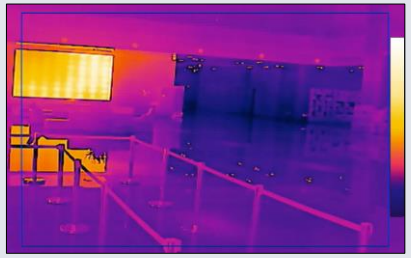
DS-K1T671TM-3XF

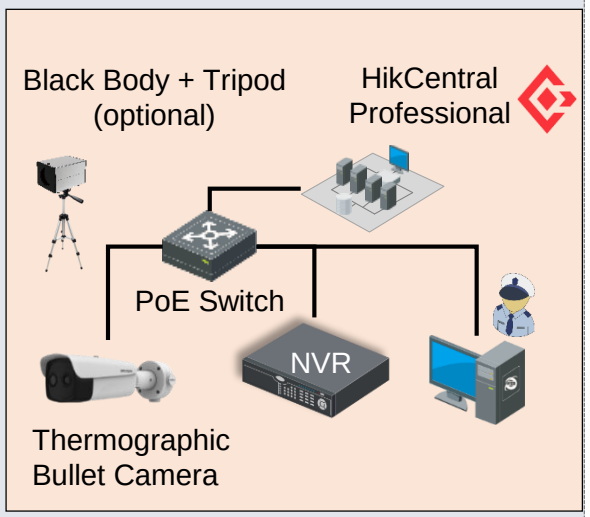
3 Group Temperature Screening

High-risk Group Screening with High Efficiency

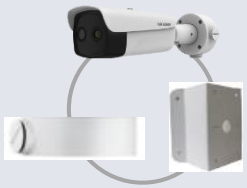
Solution Introduction

- Temperature screening of crowd with high efficiency (indoor), simultaneous Temperature screening of multiple people
- The Black Body calibrator is used to improve the accuracy to ±0.3℃
- Centralized management for CCTV with temperature record





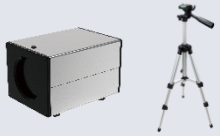
Thermographic Bullet Camera



Wall Mounted Bracket

PoE switch

HikCentral Professional

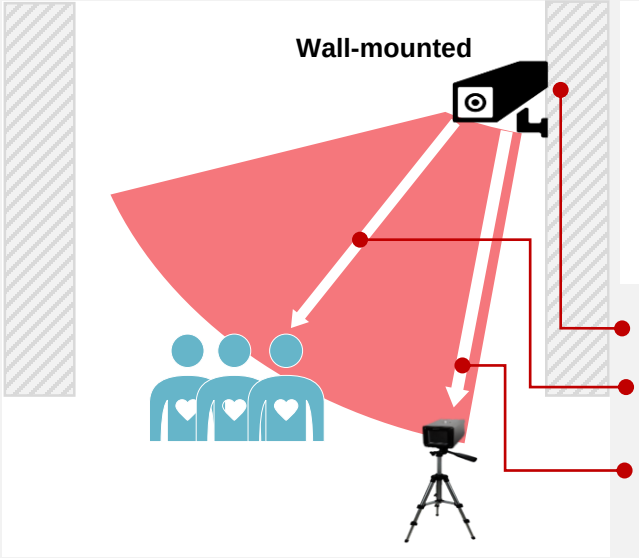


Black Body + Tripod
(optional)

Product Design

- Thermal: 384 × 288, lens: 10/13/15 mm
- Optical: 2688 × 1520, lens: 4/6/6 mm
- **Accuracy: ±0.5℃**
- Measurement range: 30-45℃
- Working temperature: 10-35℃
- **AI detection to reduce false alarms**

DS-2TD2636B-15/P
DS-2TD2636B-13/P
DS-2TD2637B-10/P



Real-time alarm monitoring

Double check by a mercury thermometer, ear thermometer, etc.

Installation height: **2.5 m**

Distance between camera and people:
2.5–9 m (15 mm thermal lens);
2.5–7 m (13 mm thermal lens);
2-7 m (10 mm thermal lens)

Distance between camera and black body: **5/3/3 m**. Keep Black Body in the upper left / upper right corner of the camera's view

Note: The NVR and HikCentral are both customized in this solution.

4 Temperature Screening on Patrol

Anytime, Anywhere. Just One Click

Solution Introduction

- For preliminary Temperature screening by spot-checking inspectors (indoor)
- Temperature screening without disturbing a person

Hik-Thermal app

iVMS-4200

Hotspot

Handheld Thermographic camera

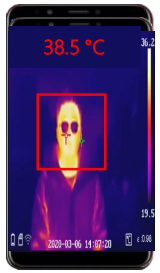
Product Design

- Thermal resolution: 160 × 120;
- Optical resolution: 640 × 480;
- **Accuracy: ±0.5℃**
- Measurement range: 30-45℃
- 3.5” LCD touch screen
- Supports **Wi-Fi hotspot**, automatic screenshots of a person with Temperature & uploading to the Mobile Client (Hik-Thermal) as evidence
- Supports real-time **audio alarm**
- Operation time: **4-5 hours**

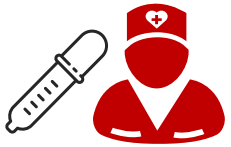
DS-2TP21B-6AVF/W

1 m - 2 m

If abnormal



Double check



4 **Short-term** Temperature Screening at Entrances – Handheld Camera Based

Anytime, Anywhere, Just One Click

Solution Details

- For preliminary fever screening by spot-checking inspectors (indoor)
- Fever screening without disturbing a person occupied with work
- Recommend to do the measurement 5 mins after a person enters the indoor space

Installation height is 1.5 m

Distance between camera and people is 1m-1.5m

Handheld Thermographic camera

Product Information

DS-2TP31B-3AUF

- Thermal resolution: 160 × 120;
- **Accuracy: ±0.5℃**
- 320 × 240 resolution 2.4” LCD display
- Measurement range: 30-45℃
- Operation time: up to **8 hours continuous running**
- Built-in rechargeable Li-ion battery (No spare battery)

➢ TP31 doesn’t support Wi-Fi function, so it can’t connect to the IVMS 4200 or Mobile APP.

1 m - 1.5 m

If abnormal

Fast and flexible **preliminary measurement**

Examine the temperature alarm in the local GUI

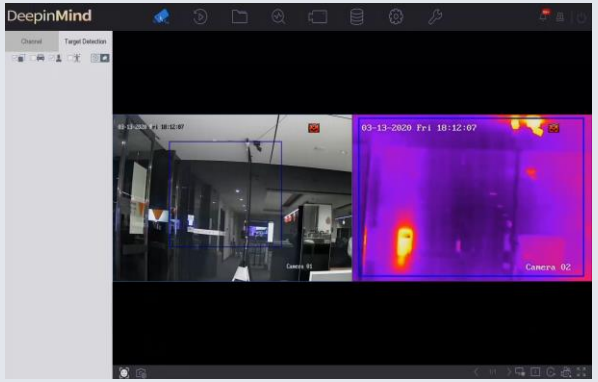
Secondary manual measurement with a mercury thermometer, ear thermometer, etc.

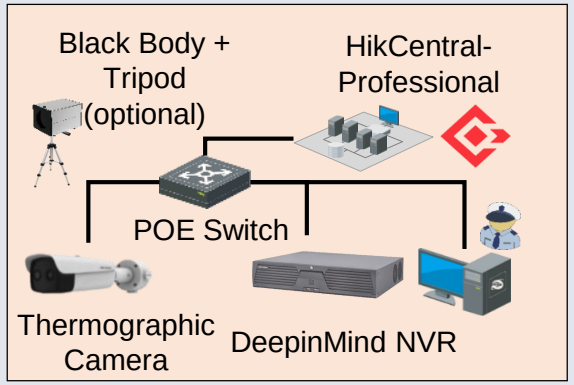
5 Temperature Screening & Mask Detection

Intuitive Demonstration

Solution Introduction

- **Temperature Screening:** Simultaneous Temperature screening for multiple persons (indoor), contact-free
- **Mask Detection:** Detecting whether people wear masks, and timely giving alarms on people without masks
- **Identity Verification & Stranger Alarm:** Confirming identity, even with mask, and giving alarms on strangers





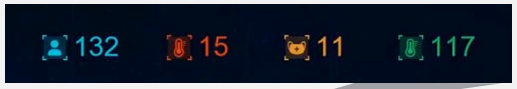
Thermographic Camera

DS-2TD2617B-3/6PA DS-2TD2637B-10/P
DS-2TD2636B-15/P DS-2TD1217B-3/6PA
DS-2TD2636B-13/P

DeepinMind NVR

iDS-9616(/32)NXI-I8/X(B)(STD)(T)
iDS-7716(/32)NXI-I4/(16P)/X(B)(STD)(T)
iDS-6708NXI-I/8F(B)(STD)(T)

Product Design



- **Number of People:** total number, abnormal temperature, no mask, normal temperature

- Temperature Status
- Facial Recognition Results
- Mask Detection

➢ **Visualized GUI & Voice Broadcast:**

- Special interface in DeepinMind NVR, visually displaying all kinds of information
- Supporting voice broadcast upon mask and temperature status

➢ **Efficient Search & Report:**

- Fast video search of target people, such as people with abnormal temperatures, without masks and so on;
- Exporting reports with ID, skin-surface temperature and mask status

Note: The DeepinMind NVR and thermographic cameras are customized in this solution.

Advantages of Hikvision’s Thermographic Fever Screening Solutions

AI Human Body Detection

Hikvision Bullet/Turret Fever Screening Thermographic Cameras feature AI human body detection to fix the measurement areas to human bodies, thus reducing false alarms caused by other heat sources.

Embedded Audio Alarms

With a built-in audio module, Hikvision Bullet/Turret Fever Screening Thermographic Cameras can trigger alarms to notify operators immediately when a person with a fever passes by.

Unique Self-developed Algorithm

Benefitting from Hikvision's self-developed temperature measurement algorithm and big data obtained by lots of cases, the accuracy of temperature measurement is highly reliable.

One-Stop Solution

As a world’s leading security solution provider, Hikvision offers a rich product portfolio including thermographic cameras, NVR, switches, etc., which is easier for clients to set up a complete and professional solution.

Mask Detection Solution

Mask Detection with Camera

Public Transportation&Retail Shop

Live Mask Detection, Friendly Audio Notification

- Simpler
- Easier
- Convenient

Product Information

- AI Mask detection
- Up to 8MP resolution
- Powered by Darkfighter
- 120dB WDR
- Strobe Light & Audio Alarm
- Built-in speaker
- PoE(802.3af)

Recommend:

- DS-2CD2T86G2-ISU/SL

- DS-2CD2386G2-ISU/SL

Mask Detection with Thermal Camera

Public Transportation&Retail Shop

Product Information

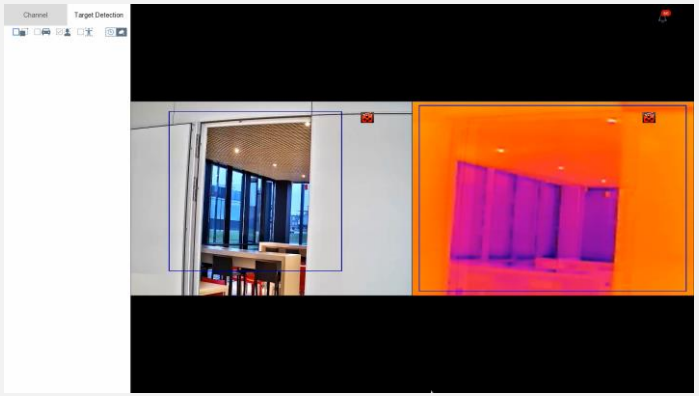
DS-2TD1217B-3/6 PA
DS-2TD2617B-3/6 PA

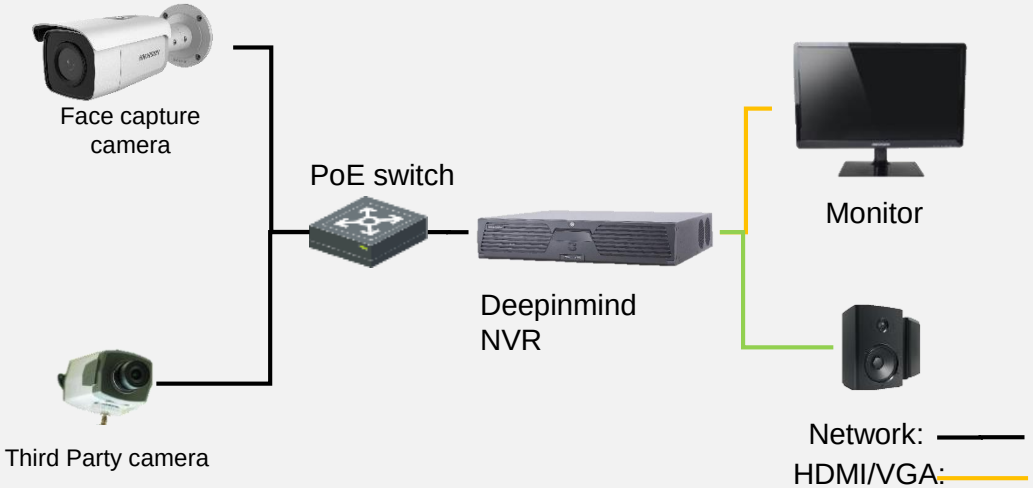
- AI Detection for Fast Temperature Screening
- Audio Warning For Abnormal Temperature

Mask Detection With DeepinMind NVR

Solution Details

- **Mask Detection**
- **No Mask alarm on Local & Hik central**
- Visualized GUI
- Real time **Audio** Notification (HDMI/audio out)
- Efficient Search by Face attributes(Mask etc.)

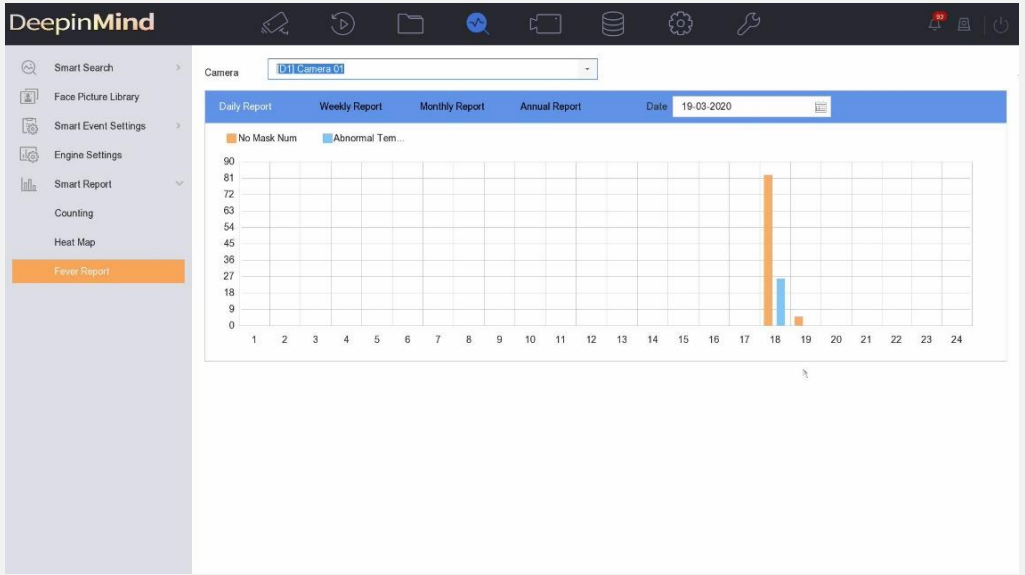




Note:
Need to use NVR/Hik central customized firmware
The Speaker needs to support RCA input

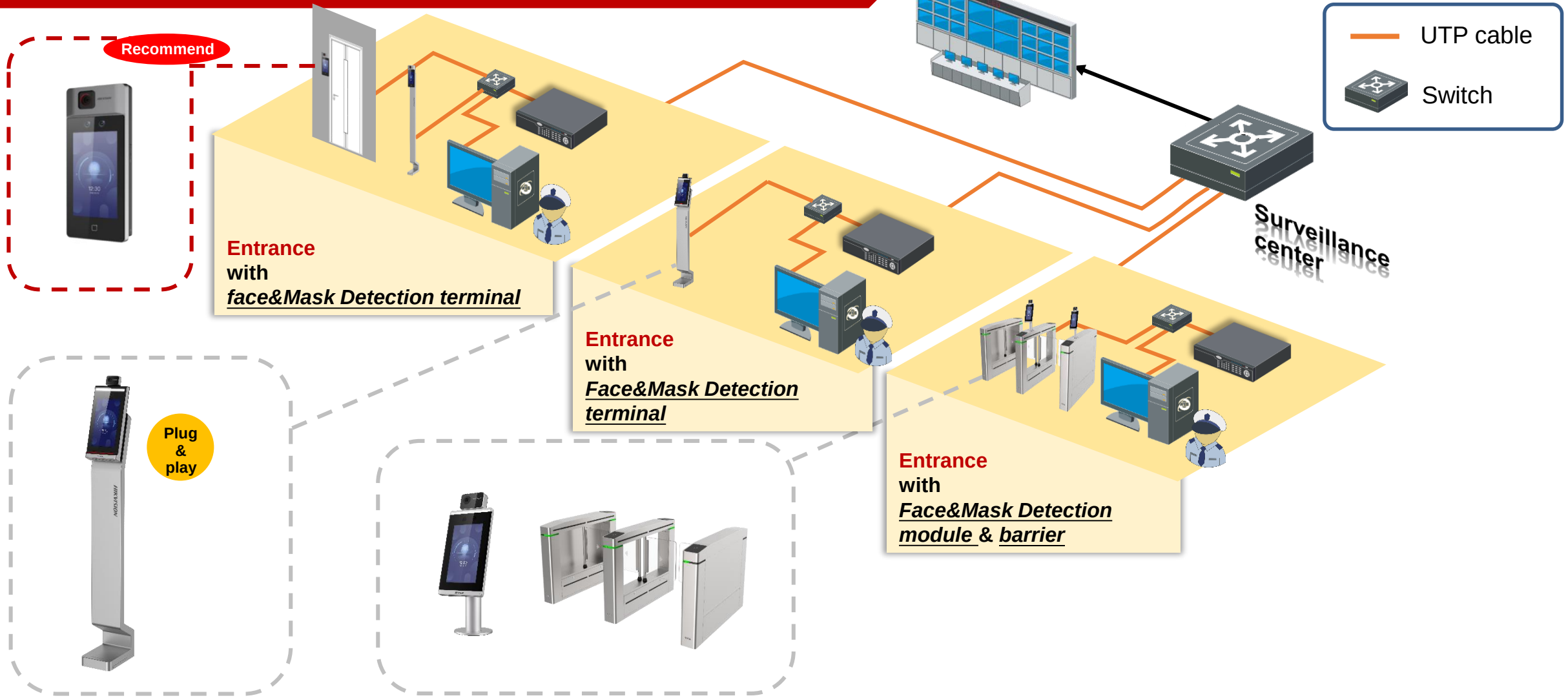
Product Information

- Up to 12MP resolution access
- Support up to 16 channels Mask detection
- Face comparison with People wearing mask
- Real time audio notification for Not wearing Mask
- No mask people report



Mask Detection With Access Control Terminal

Hikvision Access Control & Mask Detection system



Products Showcase

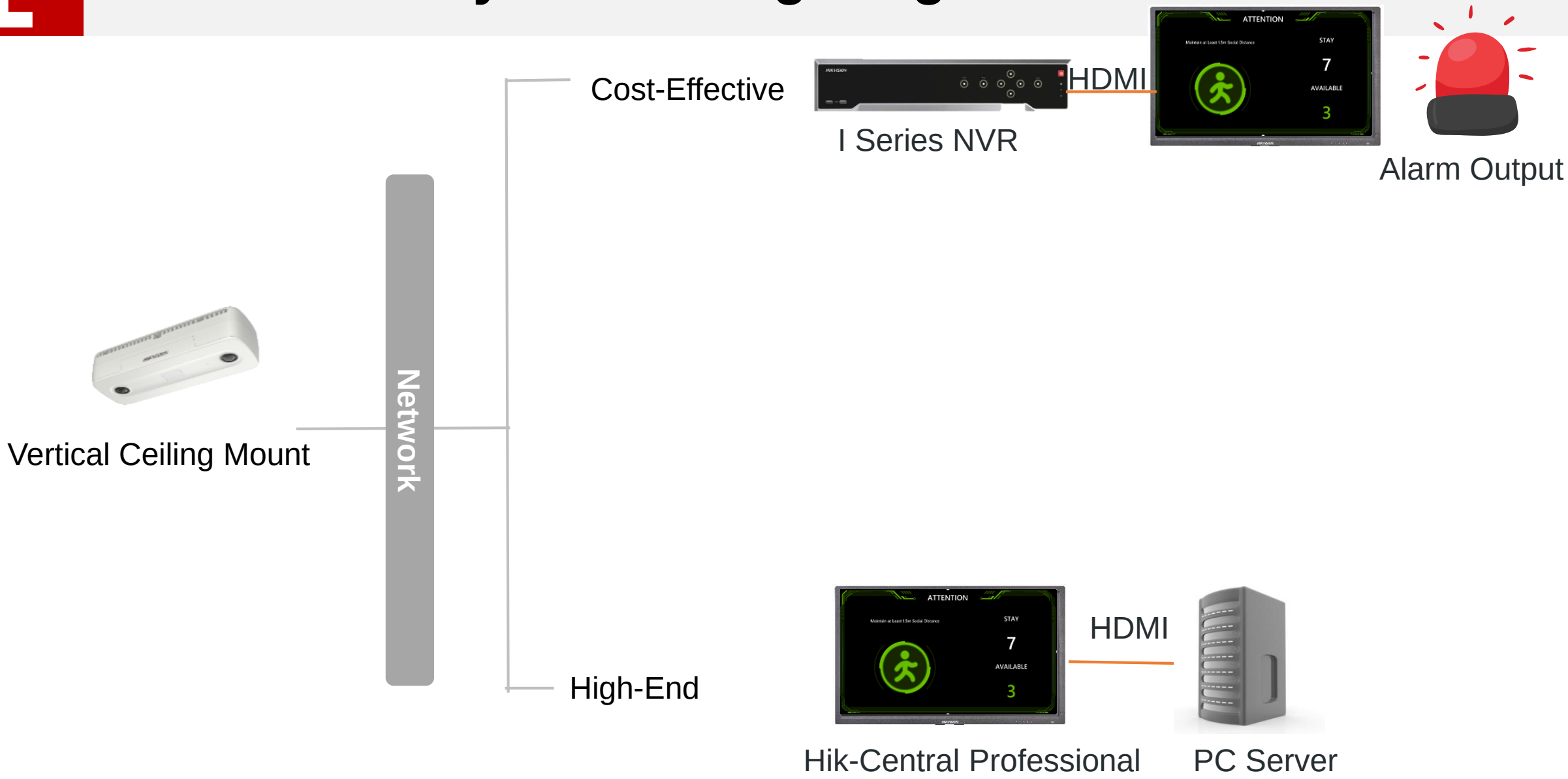
Products Overview

	DS-K5604A-3XF/V	DS-K1T671TM-3XF	DS-K5671-3XF/ZU
	Plug & play		
LCD screen	10.1 inch	7 inch	7 inch
Face capacity	50,000	50,000	50,000
Card capacity	N/A	50,000 M1 cards	N/A
Thermal imaging resolution	120 x 160	120 x 160	120 x 160
Temperature range and accuracy	30-45°C (±0.5 °C)	30-45°C (±0.5 °C)	30-45°C (±0.5 °C)
Authentication Distance	0.3-2m	0.3-2m	0.3-2m
Mask detection	Support	Support	Support
Fast temperature measurement	Support	Support	Support
Deployment	Plug & play, floor standing Including power adaptor	Wall mounting/ floor standing with mounting pole	Face recognition module for barriers

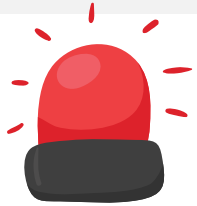
Visitor Density Monitoring Solution

See Far, Go Further

1 Visitor Density Monitoring-Single Entrance/Exit

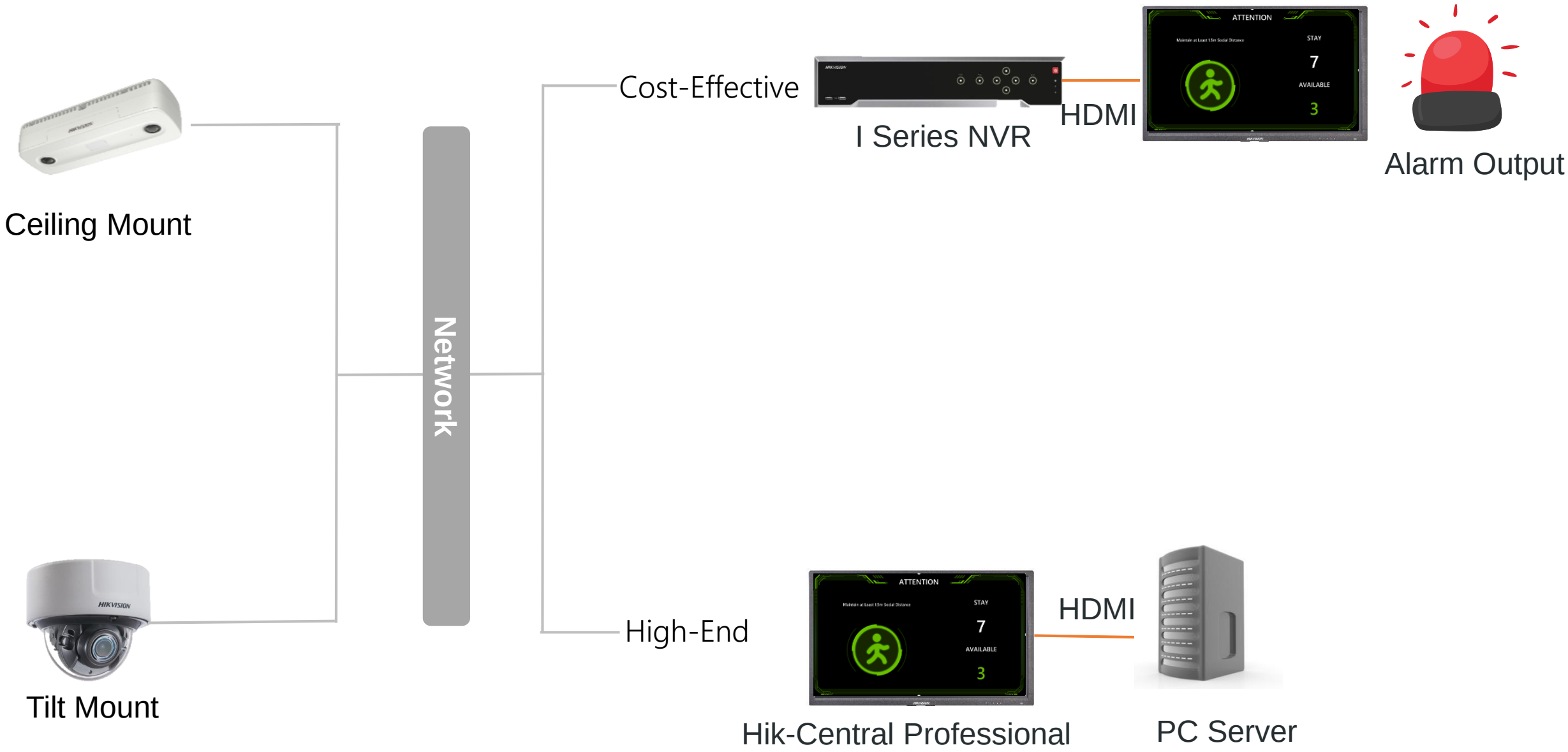


1 Visitor Density Monitoring-Single Entrance/Exit



Vertical Ceiling Mount

2 Visitor Density Monitoring-Multiple Entrances/Exits



2 Visitor Density Monitoring-Multiple Entrances/Exits

1st Entrance&Exit

2nd Entrance&Exit

Product Showcase

Dual-Lens People Counting Network Camera

- 1/2.8" Progressive Scan CMOS
- 1920 × 1200 @ 30fps
- 2 mm fixed lens
- IP66, IK08

DS-2CD6825G0/C-I(S)

Advantages:

- 3D binocular stereo vision and deep
- learning algorithm improve the
- accuracy of people counting
- Dual lenses colorful images, more real
- view and details
- Supporting reverse alarm
- Supporting filtering targets by height

Single-Lens People Counting Network Camera

- 1.8” Progressive Scan CMOS
- 2560 × 1440 @ 30fps
- Color: 0.002 Lux @ (F1.2, AGC ON)
- H.265, H.265+, H.264+, H.264
- 140dB WDR
- 3D DNR
- IK10

iDS-2CD7146G0-IZS

Advantages:

• People counting and monitoring at the same time, flexible installation points
• Deep learning algorithm improve the accuracy of people counting
• Excellent low-light performance via DarkFighter technology
• Clear imaging against strong back light due to LightFighter technology

Thanks

See far, go further