# Business Reopening Solution

AI builds safer work environment



Temperature Monitoring    Touchless Passage    Flow Control    Crowd Analysis    Mask Detection
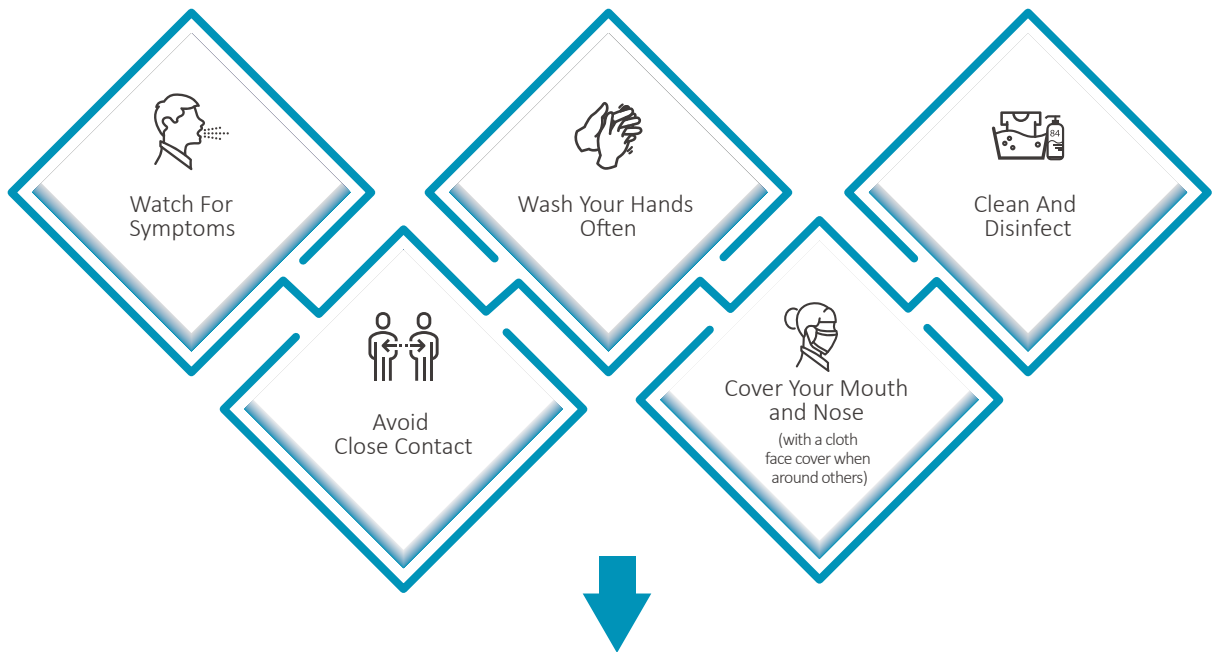
# Background

As various countries started to lift their lockdown policies, restoring the economy and returning back to normal life has become a major priority. Currently, the outbreak is not over yet, and might continue until next year.
How to protect employees and individuals during this "back to the new normal" period has indeed become a primary challenge.

Based on the policy requirements of WHO, European and American CDC and various countries, and outputs of corresponding solution measure, we have launched a comprehensive standard solution. It presents an integrated system and covers five major technologies.

Watch For
Symptoms

Wash Your Hands
Often

Clean And
Disinfect

Avoid
Close Contact

Cover Your Mouth
and Nose
(with a cloth
face cover when
around others)

## Dahua Solution

Temperature Monitoring

Touchless Access Control

Flow Control
Crowd Analysis And
People Counting

Mask Detection

# Solution Overview

This solution does not only cover multiple industry scenarios, but also includes every aspect of life, such as working in office buildings or industrial parks, studying in schools and libraries, praying in churches, living in an apartment, playing in an outdoor area, etc. It aims to provide a better protection and assist in the resumption of normal life during this challenging time.

Live    Work    Learn    Pray    Play

## Building Entrance



Mask Detection

## Main Entrance



License Plate Recognition
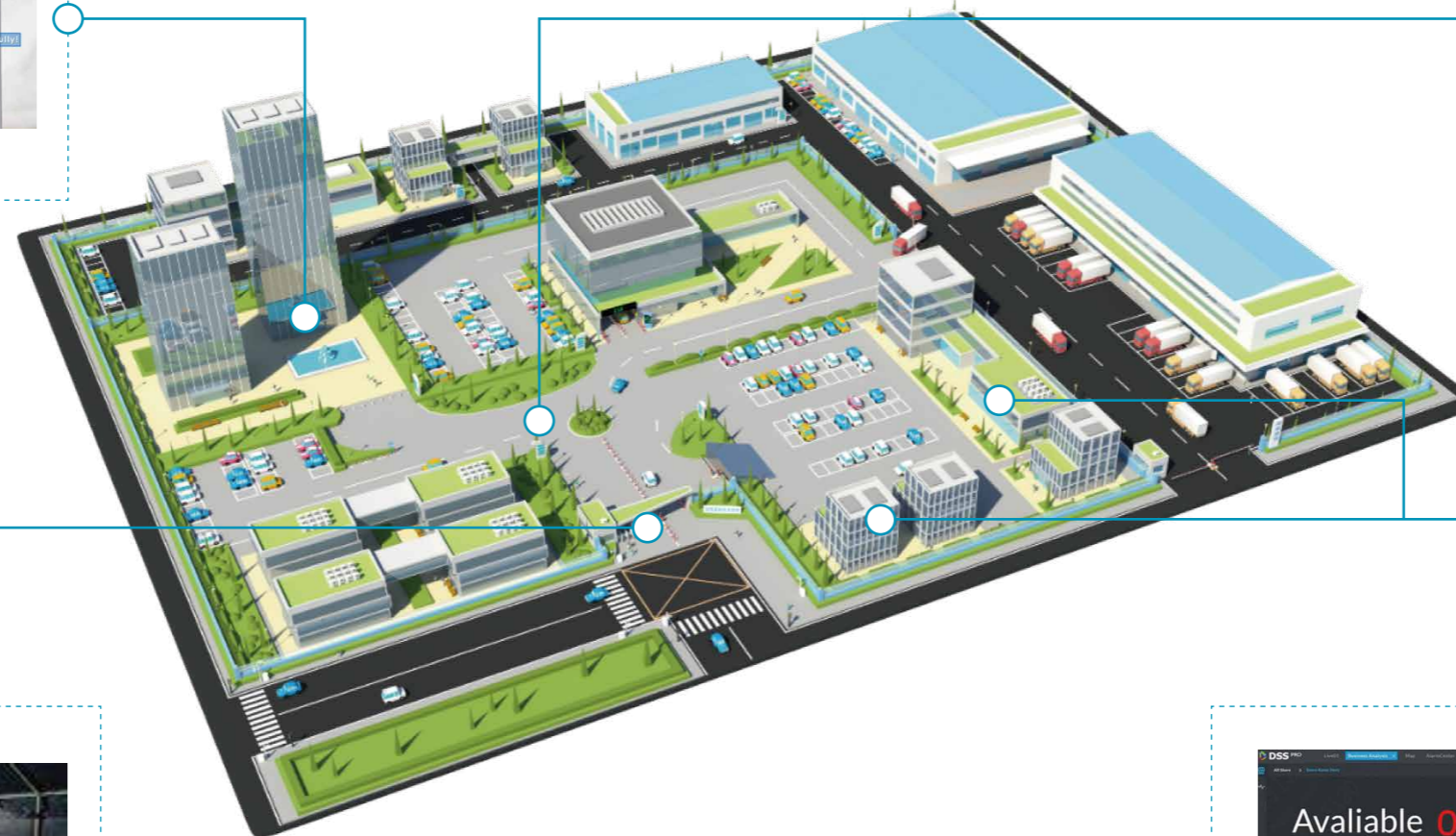


Temperature Monitoring

## Square



Crowd Analysis

## Canteen/Cafe



People Counting
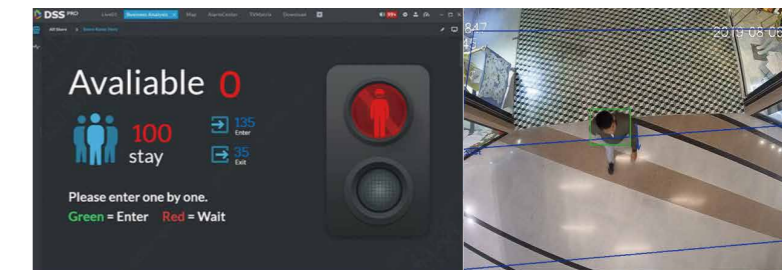


Flow Control

# Solution Introduction

## • Temperature Monitoring

In scenarios with both large and small flow of people, these devices powered by intelligent body temperature monitoring algorithm can quickly identify and discover people with elevated skin temperature, ensuring only those with normal temperature are allowed to enter. At the same time, the results of the face and temperature recognition can be uploaded to the platform and can also be displayed in the dashboard.

| Entrance Guide Area | Temperature Monitoring Area | | |
|---|---|---|---|
|  | Large Flow |  |  |
| | Small Flow |  |  |
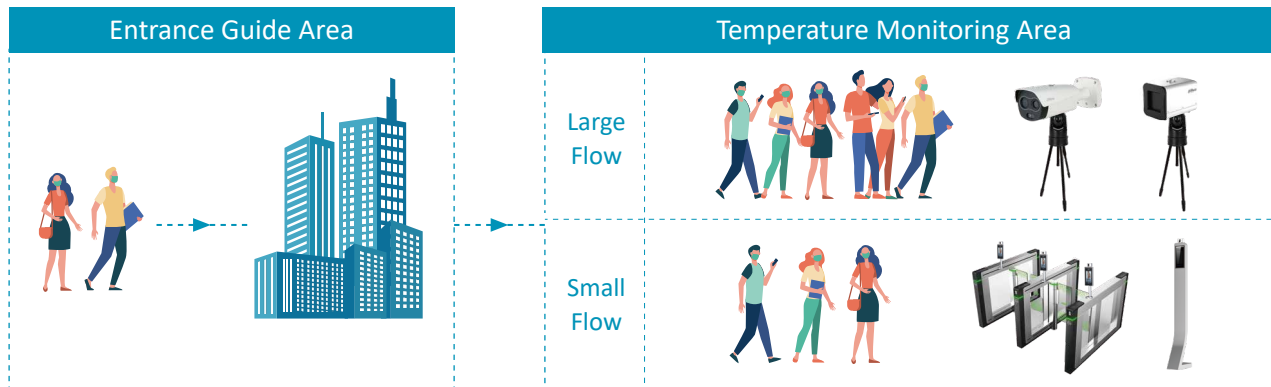


Large Flow Scenario--Main Entrance  Multi-targets (30 person at same time)  Small Flow Scenario--Building Lobby  High Passage Efficiency: 0.2s/Person

## • Touchless Passage

This solution realizes touchless and intelligent passage through face recognition and license plate recognition.

| Solution |
|---|



max.2m

Unrecogmized Person!

Face Recognition
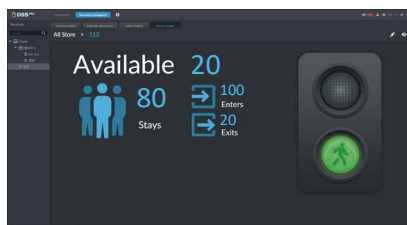
Acess Granted

People Access
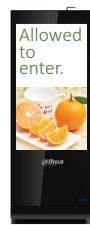
Vehicle Access
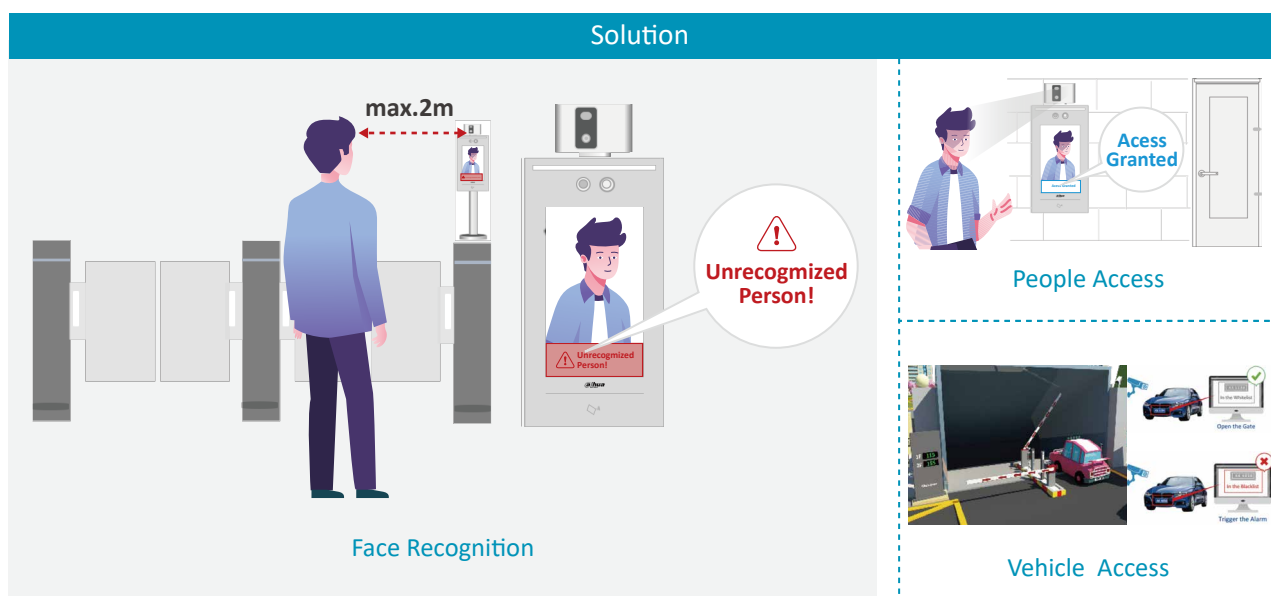
## • Flow Control

This solution supports multiple entrance and exit detection, and counts the number of customers inside in real time. When the number of people exceeds the threshold set by the user, it will remind people to wait outside.

Entrance 1

People Counting Camera

Exit

People Counting Camera

Indoor Area
Setting Max. Number of People Inside！

Entrance N

People Counting Camera

Exit

People Counting Camera

| When the number of people inside is less than the threshold set by the user. | When the number of people inside exceeds the threshold set by the user. |
|---|---|
| Available 20 / 80 Stays / 100 Enters / 20 Exits / Allowed to enter. | Avaliable 0 / 100 stay / 135 Enter / 35 Exit / Please enter one by one. Green = Enter Red = Wait / Please wait for a moment. Thanks! |
| Monitor For DSS Client | Monitor For DSS Client |
| Digital Signage | Digital Signage |
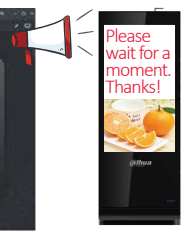
## • Crowd Analysis And People Counting

This solution provides AI remote monitoring for indoor and outdoor scenarios, preventing excessive concentration of people in one area. The camera calculates crowd density and counts the number of people in different regions. If the number of people exceeds the threshold, the alarm will be triggered in time.

Square

Crowd density detection

Canteen/Cafe

⚠ Too Crowded! No Gathering!

⚠ Too Crowded! No Gathering!

## • Mask Detection

This solution can realize real-time mask and face recognition in public areas, indoor spaces, as well as entrances and exits. At the same time, it also offers real-time voice reminder for people who are not wearing masks, uploads alarms to the platform and shows the result on the dashboard.



## • Integrated System And Visual Management

The platform's Monitoring Center dashboard allows customers to view the whole data graphics and event processing progress in real time.

## Solution Value

**01** **Regulation Compliant, Comprehensive Prevention**
Offers five major technologies powered by AI.

**02** **Integrated System, Visual Management**
Provides visual management with integrated data graphic dashboard.

**03** **Module Design and Reusable**
Allows continuous use of devices in the future to improve businesses and living conditions.

## Solution Topology

Management Center

DSS Pro

Mask Detection

CCTV + Digital Signage

Crowd Analysis And People Counting

CCTV

Temperature Monitoring

Thermal Camera | Access Control

Flow Control

CCTV | Access Control
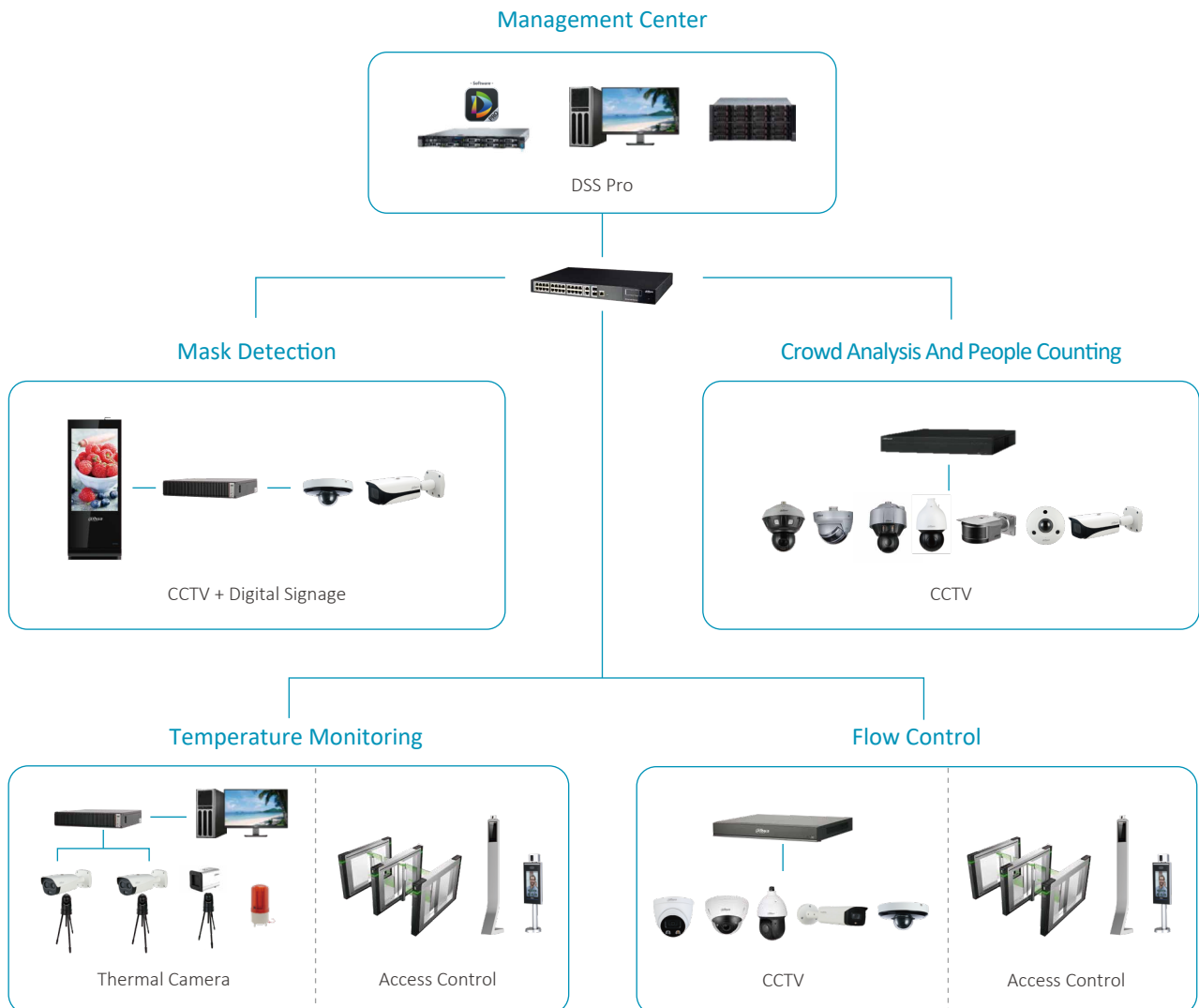
# Product Showcase

**TPC-BF3221-T**
Thermal Camera

**DH-TPC-HBB**
Black Body

**IPC-HDW5541H-AS-PV**
5MP WDR IR Eyeball AI
Network Camera

**ITC237-PW1B-IRZ**
2 Megapixel Full HD
WDR Access
ANPR Camera

**SD5A232XA-HNR**
2MP 32x Starlight IR
WizSense Network
PTZ Camera

**PSDW8842ML-A180**
4x2MP Multi-Sensor
Panoramic Network
Camera + PTZ Camera

**IPC-HFW5241E-ZE**
2MP Pro AI IR
Vari-focal Bullet
Network Camera

**SD49425XB-HNR**
4MP 25x Starlight IR
PTZ AI Network Camera

**SD49425XB-HNR**
4MP 25x Starlight IR
PTZ AI Network Camera

**DHI-NVR5216-16P-I**
AI Network Video
Recorder

**SDT5X405-4F-WA**
Dual 4MP Starlight
Hunter AI Camera

**IPC-EBW81242**
Panoramic Network IR
Fisheye Camera

**DHI-ASGB8xxX-L/R/D**
Swing Barrier

**DHI-ASI7213X-T1**
Intelligent Video
Surveillance Server
Temperature Access
Control Terminal

**DHI-ASI7213X-T1+
ASF172X-T1**
Floor Stand Temperature
Access Control Terminal

**LDV55-SAI200**
Digital Signage

**DSS Pro**
Comprehensive And
Expandable VMS

# Application Scenarios



Industrial Park



Residential Area
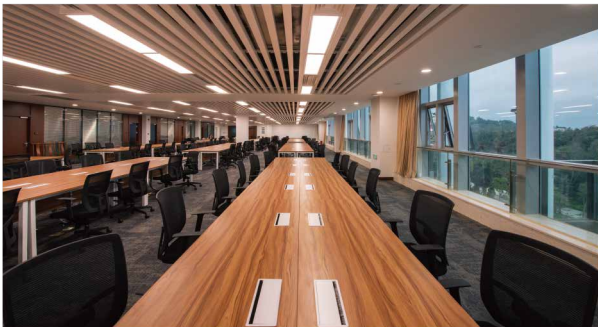


Office Building



Casino



Library



School
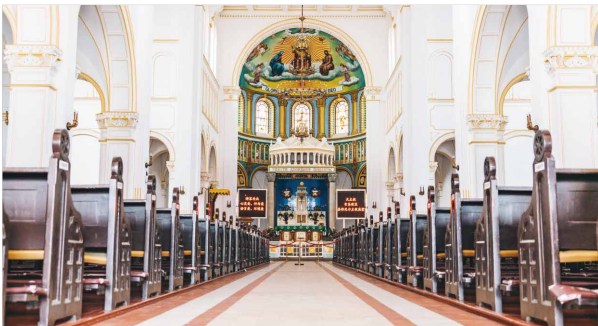


Church



Hotel

# ENABLING A SAFER SOCIETY
# AND SMARTER LIVING

Ver .2, Jul. 2020