Back to Business

Social Distancing and Density Solutions

HIKVISION®

Safe Reopening
of Businesses

CDC guidelines outline practices for safe reopening of states and businesses. Physical distancing among individuals helps reduce the risk of spreading infection, and limiting the number of people in a building or area can make it easier for people to maintain a safe social distance. Hikvision provides solutions that automatically detect and alert when exceptions to social density and social distancing parameters occur, making adherence to CDC guidelines easier for businesses and their visitors.

Hikvision social distancing and density solutions use deep learning people-counting cameras, network video recorders (NVRs), digital signage boxes, and our iVMS-4200 desktop application to calculate and notify when social density and distancing exceptions occur. Some options provide additional benefits such as: face mask detection, loitering detection, queue management, multi-purpose digital signage and integration with skin-surface temperature screening cameras. These solutions are scalable and beneficial to small shops, commercial buildings, shopping centers, factories, arenas and more.

Social Distance

Social distance is continuously calculated in real-time using a dual-lens camera with depth perception and a deep learning algorithm. The minimum social distance is adjustable, and when the camera calculates that two individuals are closer than the minimum social distance for a number of seconds, a notification can be sent to the desktop application and alarm device or public announcement system connected to the camera or NVR. Each camera can calculate the distance between people over an area extending up to 20 feet horizontally from the camera, which has a field of view of 104.5-degrees by 70.5-degrees.

Camera calculates social distance

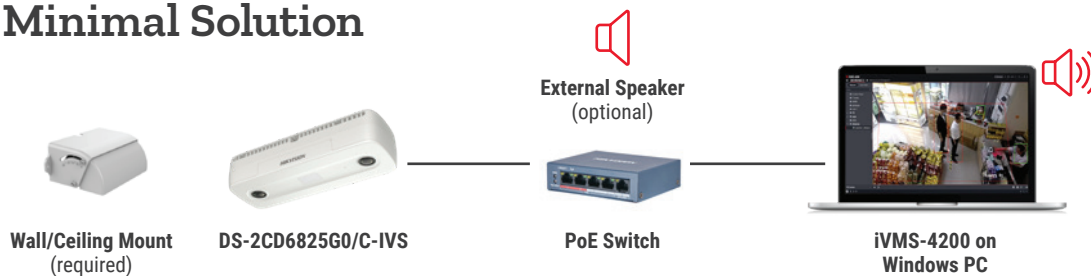**Camera determines if people are too close**

Notification pops up in desktop application or NVR user interface

Triggers an audible notification

Minimal Solution

External Speaker (optional)

Wall/Ceiling Mount (required)
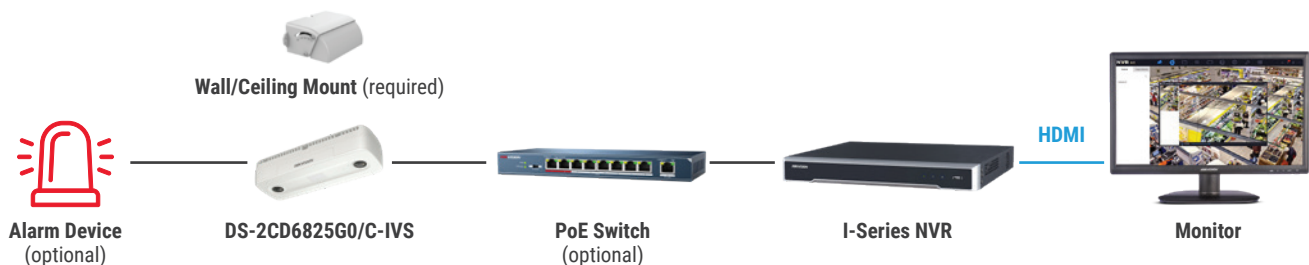
DS-2CD6825G0/C-IVS

PoE Switch

iVMS-4200 on Windows PC

Social distancing cameras can be deployed with Hikvision's PoE network switches and free iVMS-4200 desktop application for Windows. Social distancing exceptions will appear in the application as they occur. Another option is to play an audible reminder to practice social distancing, which could be triggered by the camera or iVMS-4200. With more advanced configuration, iVMS-4200 can also record surveillance video on a PC.

Hikvision People Counting Cameras require special firmware to implement this social distancing solution.

Enhanced Solution

Wall/Ceiling Mount (required)

HDMI

Alarm Device (optional)

DS-2CD6825G0/C-IVS

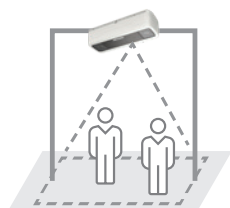**PoE Switch** (optional)

I-Series NVR

Monitor

For simplified setup and video recording with extended storage capacity, add a Hikvision I-series NVR and monitor to record video and display real-time social distancing exceptions. Several I-series NVR models have a built-in PoE network switch, which eliminates the need for a separate switch. Devices or systems that produce light, sound or an announcement can be connected to the alarm output of the NVR or each camera.

Hikvision People Counting Cameras and I-Series NVR require special firmware to implement this social distancing solution.
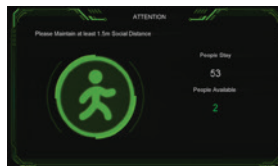
Social Density

Social density, or occupancy, is the number of people in an area or building. Challenges of enforcing social distancing space between people increases with social density. That is why limiting the number of people in an area is advantageous where social distancing is required. Hikvision's people counting cameras, specifically iDS-2CD7146G0-IZS and DS-2CD6825G0/C-I(V)S, use deep learning algorithms to accurately detect and count people entering and leaving. Various Hikvision devices can use the people counting data to track occupancy and show when more people can safely enter. If the maximum occupancy is exceeded, a display and voice announcement can kindly can instruct incoming visitors to wait.

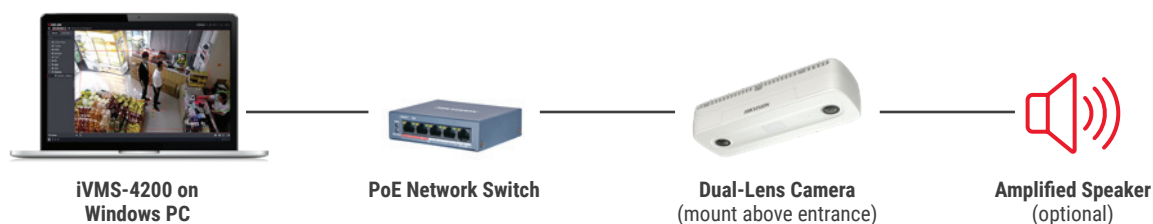**Cameras count people entering and exiting an area**

Social density is continuously updated

Visitors or staff can see when it is safe to enter and voice alarms can sound when maximum occupancy is exceeded
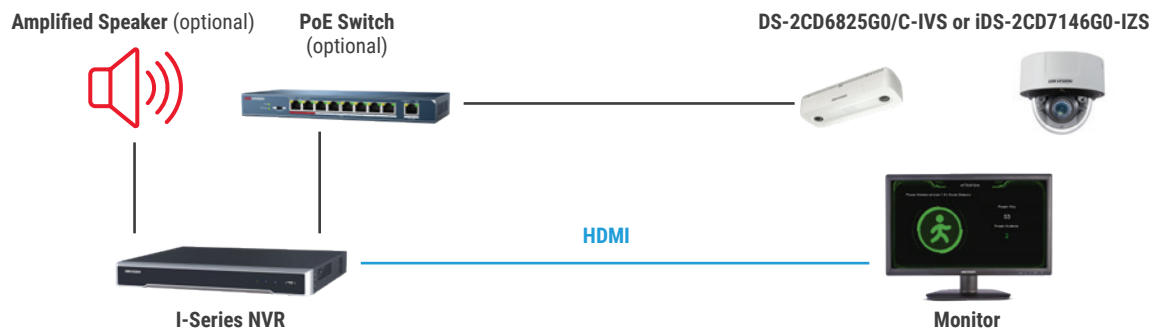
Minimal Solution

iVMS-4200 on Windows PC

PoE Network Switch

Dual-Lens Camera
(mount above entrance)

Amplified Speaker
(optional)

The DS-2CD6825G0/C-I(V)S can be deployed by itself with special firmware for social density measurement in areas where only one point of entry and exit exists. Live occupancy and number of additional people that may enter can be viewed on the camera's video stream using any compatible video client such as the camera's web client, iVMS-4200, or our mobile app. For visitor privacy and high contrast readability, the surveillance video can be disabled on the video stream so that only the numbers show on a black background. In this single camera solution, the camera can also play a customizable announcement through its line level audio output.

Hikvision People Counting Cameras requires special firmware to implement this social distancing solution.

Multi-Door, Single-Display Solution

Amplified Speaker (optional) **PoE Switch** (optional) **DS-2CD6825G0/C-IVS or iDS-2CD7146G0-IZS**
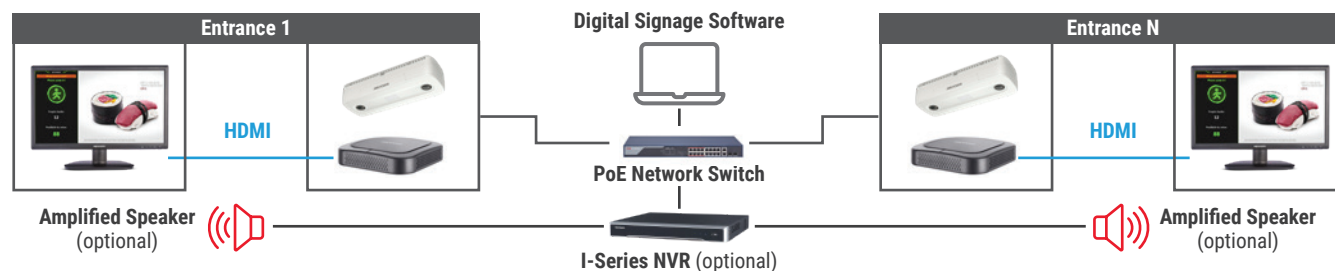
HDMI

I-Series NVR **Monitor**

A Hikvision I-Series NVR can use multiple people counting cameras to keep track of the social density in an area with multiple doors. The NVR provides an improved visual display with clear instructions using a green walk sign and red do-not-walk sign along with the numerical data. The NVR can also play a voice announcement when the desired social density is exceeded through its HDMI or line-level audio output. Several I-Series NVRs have a built-in PoE network switch, which eliminates the need for a separate PoE switch. Two recommended camera options include:

- DS-2CD6825G0/C-I(V)S provides the best counting accuracy using a straight-down overhead view at the entrance with 3D vision and deep learning.
- iDS-2CD7146G0-IZS provides good counting accuracy and face mask detection using deep learning with a typical surveillance view of the entrance from inside.

The NVR's social density display is only available on one video output. If multiple displays are needed, consider using a video splitter or the enhanced multi-door solution shown next.

The NVR requires special firmware to implement this social distancing solution.

Enhanced Multi-Door Solution

Entrance 1 **Digital Signage Software** **Entrance N**

HDMI **HDMI**

PoE Network Switch

Amplified Speaker (optional) **I-Series NVR** (optional) **Amplified Speaker** (optional)

Hikvision digital signage boxes provide an enhanced multi-function solution for event and business areas with multiple entrances such as arenas, larger retailers and shopping malls.

Benefits of Hikvision Digital Signage Boxes
- Unified management of multiple entrances and areas
- Display live occupancy and number of people that can enter
- Support custom pop-up message when visitor without face mask is detected
- Compatible with Hikvision temperature screening cameras
- Simultaneous display of advertising and informational media of many types

The NVR is optional in this solution for video recording, increased multi-streaming capability, and potentially a built-in PoE switch. Face mask detection requires adding the iDS-2CD7146G0-IZS camera. Preliminary skin-surface temperature screening can be integrated with the addition of a Hikvision temperature screening thermographic camera.
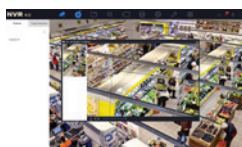
The digital signage box can display occupancy, mask enforcement, temperature measurement and other media at the same time with management facilitated by Hikvision's free digital signage software. Other media can be displayed, including pictures, audio, recorded videos, live video stream, web pages and PDF documents. This people counting and digital signage solution can continue to provide value long after pandemic recovery back-to-business guidelines expire.

Loitering & Queue Management

During pandemic recovery or business as usual, loitering and queue management provide enhanced efficiency and safety for businesses and their customers. Businesses can quickly detect individuals or a number of people lingering in certain areas and enforce clear walkways and hassle-free passage. Businesses can also detect long or slow-moving lines and take action to help patrons checkout more quickly. Hikvision's Indoor Varifocal Network Dome model iDS-2CD7146G0-IZS makes this possible using deep learning technology, providing intelligent features such as queue analysis, loitering detection, and many more for other applications.
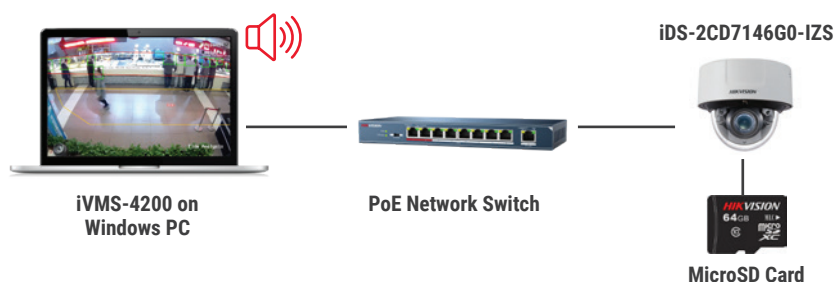

No more than three people

Camera counts people and wait time of each person in up to three areas per camera Camera can alarm when people-number or waiting-time threshold is exceeded

iVMS-4200 can display a pop-up and audibly notify

The camera's alarm output can trigger a separate alarm or public announcement

Minimal Solution

iDS-2CD7146G0-IZS

iVMS-4200 on Windows PC

PoE Network Switch

MicroSD Card

The iDS-2CD7146G0-IZS camera stores the loitering and queue analysis data on a micro SD memory card (sold separately). Hikvision's free client desktop application, iVMS-4200, connects to the camera and provides real-time alerts and data analysis. The analysis data can be plotted in various ways to compare multiple areas or queues with each other and see trends over time. A Hikvision NVR can be added to record large amounts of video.

Enhanced Solution

iVMS-4200 on Windows PC

I-Series NVR

iDS-2CD7146G0-IZS

An I-Series NVR can serve as the PoE network switch and storage medium for the loitering and queue analysis data as well as a much larger amount of surveillance video. The NVR can connect and record multiple cameras. The data can be analyzed using the NVR's web client interface or the iVMS-4200 desktop application.

Applications

Department Store

Supermarket

Arena

Theater

Restaurant

Convenience Store

Factory

Office Building

Product Showcase

Cameras

Outdoor Dual-Lens People Counting Density Camera
DS-2CD6825G0/C-IVS

- Social Distance Measurement
- Social Density Measurement
- Outdoor Rated, IP67
- Dual-lens 3D Vision
- 2 MP (1920×1080) @ 30 FPS
- Fixed Lens, 2 mm
- Built-in Microphone
- Audio I/O, Alarm I/O

Indoor Dual-Lens People Counting Density Camera
DS-2CD6825G0/C-IS

- Social Distance Measurement
- Social Density Measurement
- Indoor Rated
- Dual-lens 3D Vision
- 2 MP (1920×1080) @ 30 FPS
- Fixed Lens, 2 mm
- Built-in Microphone
- Audio I/O, Alarm I/O

4 MP Indoor Varifocal Network Dome Camera
iDS-2CD7146G0-IZS

- Social Density Measurement
- Face Mask Detection
- Loitering Detection
- Queue Management
- Indoor and Vandal Rated, IK10
- 4 MP (2560×1440) @ 30 FPS
- Motorized Lens, 2.8–12 mm
- Audio I/O, Alarm I/O
- Supports Micro SD up to 256 GB

Digital Signal Box
DS-D60C-B

- Displays Pictures, Audio, Video, PDF, Streaming Media, Web Page, Live Video and Third-Party Data
- Supports Free Schedule and District Display of Multiple Materials
- 4K UHD HDMI Output (3840×2160)
- Inputs: HDMI, Audio, 2×USB
- Support Micro SD Card up to 32 GB
- Gigabit LAN, Wi-Fi (802.11b/g/n)
- Remote Control

Micro SD Cards
HS-TF-H1I/32G
HS-TF-H1I/64G
HS-TF-H1I/128G

- Surveillance Grade Flash Memory
- Durable MLC NAND Technology
- Capacity: 32, 64 or 128 GB
- Speed: Class 10, U1
- Long-Life Storage Algorithm
- Supports End-of-Life Warning
- Secure Read/Write Theft Lock

Camera Tilt Bracket
DS-2272ZJ-KL

- Required for Social Distance Measurement Camera
- Tilt Camera From 0° to 65°
- Mount on Ceiling or Wall

Product Showcase *cont'd*

Performance I2 Series NVRs

COMMON I2 SERIES SPECIFICATIONS:

- Up to 12 MP Resolution
- 4K UHD HDMI Output (3840 × 2160)
- Independent HDMI and VGA Outputs
- 1x Gigabit Ethernet Port
- Long Distance PoE ≤ 300 m
- 2x SATA, Total Capacity ≤ 24 TB
- H.265+/H.265/H.264+/H.264/MPEG4
- Alarm I/O: 4 Inputs, 1 Output

8-Ch Plug and Play 4K NVR
DS-7608NI-I2/8P

- 8 IP-Channel NVR
- 8 Port Plug & Play PoE+ Switch
- 120 W PoE Power Budget
- 80 Mbps Incoming Bandwidth

16-Ch Plug and Play 4K NVR
DS-7616NI-I2/16P

- 16 IP-Channel NVR
- 16 Port Plug & Play PoE+ Switch
- 200 W PoE Power Budget
- 160 Mbps Incoming Bandwidth

Performance I4 Series NVRs

COMMON I4 SERIES SPECIFICATIONS:

- Up to 12 MP Resolution
- 4K UHD HDMI Output (3840 × 2160)
- Independent HDMI x2, VGA and CVBS Outputs
- 1x Gigabit Ethernet Port
- Long Distance PoE ≤ 300 m
- 4x SATA, Total Capacity ≤ 48 TB
- H.265+/H.265/H.264+/H.264/MPEG4
- Alarm I/O: 16 Inputs, 4 Outputs

16-Ch Plug and Play 4K NVR
DS-7716NI-I4/16P

- 16 IP-Channel NVR
- 16 Port Plug & Play PoE+ Switch
- 200 W PoE Power Budget
- 160 Mbps Incoming Bandwidth

32-Ch Plug and Play 4K NVR
DS-7732NI-I4/16P

- 32 IP-Channel NVR
- 16 Port Plug & Play PoE+ Switch
- 200 W PoE Power Budget
- 256 Mbps Incoming Bandwidth

32-Ch Plug and Play 4K NVR
DS-7732NI-I4/24P

- 32 IP-Channel NVR
- 24 Port Plug & Play PoE+ Switch
- 210 W PoE Power Budget
- 320 Mbps Incoming Bandwidth

Performance I8 Series NVRs

COMMON I8 SERIES SPECIFICATIONS:

- Up to 30 MP Resolution
- 4K UHD HDMI Output (3840 × 2160)
- Independent HDMI x2, VGA and CVBS Outputs
- 2x Gigabit Ethernet Ports
- 4x SATA, Total Capacity ≤ 96 TB
- RAID 0/1/5/6/10, Hot Spare, Hot Swap
- N+1 Hot Spare NVR Ready
- H.265+/H.265/H.264+/H.264/MPEG4
- Alarm I/O: 16 Inputs, 4 Outputs

16-Ch 4K NVR
DS-9616NI-I8

- 16 IP-Channel NVR
- 256 Mbps Incoming Bandwidth

32-Ch 4K NVR
DS-9632NI-I8

- 32 IP-Channel NVR
- 320 Mbps Incoming Bandwidth

64-Ch 4K NVR
DS-9664NI-I8

- 64 IP-Channel NVR
- 320 Mbps Incoming Bandwidth

Product Showcase *cont'd*

Monitors

19" LCD Display Monitor
DS-D5019QE-B

- 18.5" Screen
- 1366 x 768 Resolution
- LED Backlit Technology
- Wide Angle View: 90° (H)/65° (V)
- Input: HDMI, VGA
- Design for 24/7 Operation

22" LCD Display Monitor
DS-D5022QE-B

- 21.5" Screen
- 1920 x 1080 Resolution
- LED Backlit Technology
- Wide Angle View: 170° (H)/160° (V)
- VESA Mount 100 mm x 100 mm
- Input: HDMI, VGA
- Design for 24/7 Operation

22" LED Display Monitor
DS-D5022FC

- 21.5" Screen
- 1920 x 1080 Resolution
- LED Backlit Technology
- Wide Angle View: 170° (H)/160° (V)
- VESA Mount 100 mm x 100 mm
- Multiple Inputs: HDMI, VGA, BNC, Audio, USB
- Design for 24/7 Operation

27" LED Display Monitor
DS-D5027FN

- 27" Screen
- 1920 x 1080 Resolution
- LED Backlit Technology
- Wide Angle View: 178° (H)/178° (V)
- VESA Mount 100 mm x 100 mm
- Input: HDMI, VGA
- Design for 24/7 Operation

32" LCD Display Monitor
DS-D5032QE

- 31.5" Screen
- 1920 x 1080 Resolution
- LED Backlit Technology
- Wide Angle View: 178° (H)/178° (V)
- VESA Mount 100 mm x 100 mm
- Input: HDMI, VGA
- Built-In Speakers
- Design for 24/7 Operation

43" LED Display Monitor
DS-D5043FL-B

- 42.5" Screen
- 1920 x 1080 Resolution
- LED Backlit Technology
- Wide Angle View: 178° (H)/178° (V)
- VESA Mount 400 mm x 300 mm
- Multiple Inputs: HDMI, VGA, BNC, CVBS, DVI, Audio, USB
- Built-In Speakers
- Design for 24/7 Operation

PoE+ Network Switches

COMMON SPECIFICATIONS:

- Extended PoE Mode ≤ 984 ft (300 m)
- PoE Output Power Management
- High Priority Ports
- Extra-Large Buffer Cache
- 6 kV Surge Protection
- IEEE 802.3, IEEE 802.3u, IEEE 802.3x

4 PoE+ Port Extended Range Network Switch
DS-3E0105P-E2

- 4 × 100 Mbps PoE Ports
- 1 × 100 Mbps Ethernet Port
- 1 Gbps Switching Capacity
- 60 W PoE Power Budget
- 4 × Long Distance Ports
- 2 × High Priority Ports
- 448 kb Cache

8 PoE+ Port Extended Range Network Switch
DS-3E0109P-E2

- 8 × 100 Mbps PoE Ports
- 1 × 100 Mbps Ethernet Port
- 1.8 Gbps Switching Capacity
- 115 W PoE Power Budget
- 8 × Long Distance Ports
- 2 × High Priority Ports
- 1 Mb Cache

16 PoE+ Port Extended Range Network Switch
DS-3E0318P-E2

- 16 × 100 Mbps PoE ports
- 2 × 1000 Mbps Ethernet/SFP Ports
- 7.2 Gbps Switching Capacity
- 230 W PoE Power Budget
- 8 × Long Distance Ports
- 8 × High Priority Ports
- 2.75 Mb Cache

24 PoE+ Port Extended Range Network Switch
DS-3E0326P-E2

- 24 × 100 Mbps PoE ports
- 2 × 1000 Mbps Ethernet/SFP Ports
- 8.8 Gbps Switching Capacity
- 370 W PoE Power Budget
- 8 × Long Distance Ports
- 8 × High Priority Ports
- 2.75 Mb Cache

Hikvision USA Inc.
18639 Railroad Street
City of Industry, CA 91748

Hikvision Canada Inc.
4848 Levy Street
Saint-Laurent, Quebec H4R 2P1

Contact Information
Toll-Free: +1 866-200-6690 (U.S. and Canada)
Phone: +1 909-895-0400
Email: sales.usa@hikvision.com
hikvision.com

Connect with us: 🐦 f in ▶ ⚬

071020HK