

Smart Retail Solutions

Using Artificial Intelligence (AI) and Business Intelligence (BI) to Transform your Retail Environment



UK & IRELAND

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BACKGROUND



Competition

33% of respondents have closed stores in response to online competition in the past three years. A little under half of respondents (47%) say they face “significant” competition from online-only rivals, with a further 37% facing "moderate" competition.

Source: The Economist & Intelligence Unit, Brick-and-Mortar Retailers fight back



Digital

39% of retailers ranked ‘Ability to turn customer data into intelligent and actionable insight’ one of their greatest challenges.

Source: PwC, Total Retail Report

KEY CHALLENGES

CHALLENGES

Security Challenges



Chain Management



Store Management



Staff Safety



Internal Theft



Shoplifting



Robbery



TECHNOLOGY

Data Visualisation



Data Collection



Data Analysis



Business Challenges



Transaction Data



Footfall Data





FACE MASK DETECTION SOLUTIONS

OVERVIEW

Governments are actively mandating the use of face coverings in shops and supermarkets with the potential of financial penalties if individuals fail to comply.

SOLUTION

Dahua has innovated to create a Face Mask Detection Solution which automatically detects if a person entering a premises is wearing a mask or not. When a person is detected not wearing a face mask, the camera delivers a real-time audible alert and broadcasts an automatic voice message prompting them to put a mask on. In addition, this capability can be integrated with access control solutions to offer further value and a safer environment for customers and staff.

BENEFITS



Safe

Reduce the infection risk of staff and customers



Real-time

Real-time alerts and voice prompts



Accurate

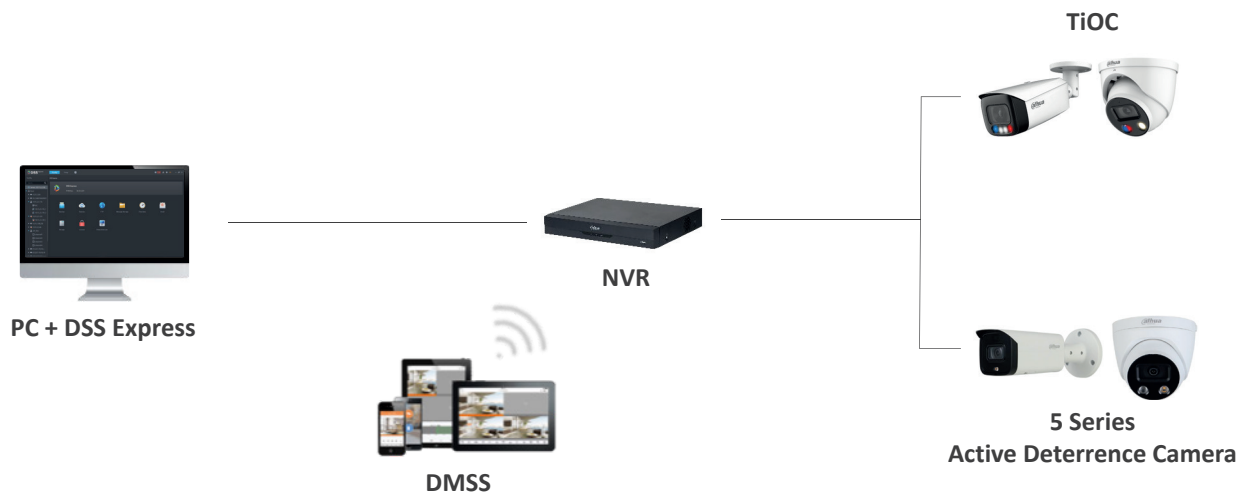
Face mask detection accuracy: **>95%**



Cost-effective

Only one camera or one terminal is needed

TOPOLOGY





CUSTOMER FLOW MANAGEMENT SOLUTIONS

OVERVIEW

With the large-scale outbreak of the COVID-19 virus globally, various countries have introduced emergency measures to contain and manage the epidemiological emergency of COVID-19. Places like supermarkets, food stores, banks, etc. have strict restrictions on people flow.

SOLUTION HIGHLIGHTS



Regulation Compliant

Helps to meet the requirement of the latest government regulations to limit the number of shoppers



High Accuracy

People counting accuracy up to **98%**



Flexible and Easy to Deploy

Easy installation and flexible deployment



Reduces the Risk of Infection

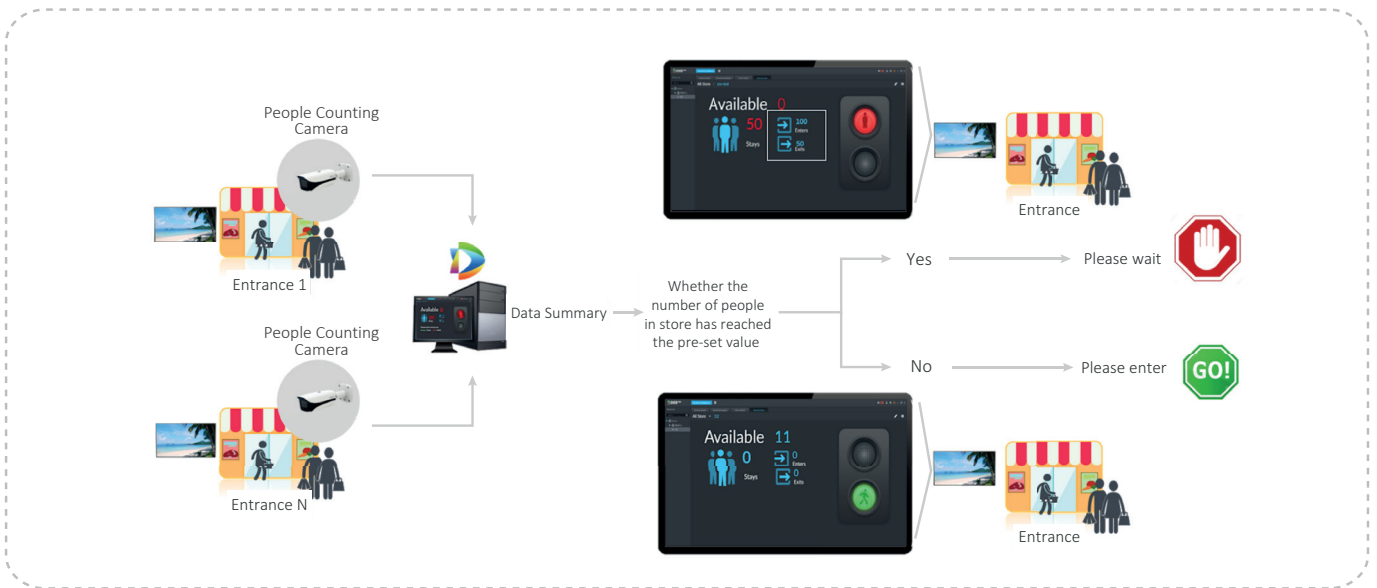
By strictly limiting the number of shoppers, the risk of infection can be reduced for customers and staff



Real-time Alarms

Stops customers from entering when exceeding the preset value

SOLUTION



User Friendly Display

Dahua's DSS Express and NVR can manage single entrance/exit or multiple entrances/exits and display the available/occupied number, which is also displayed to customers/visitors.





SMART RETAIL SOLUTIONS

LOSS PREVENTION

- Surveillance without blind spots
- White/black list
- POS integration
- Panoramic monitoring

OPERATION MANAGEMENT

- AI heat map
- Customer demographic
- Customer flow analysis
- Merchandise insight

BETTER SHOPPING EXPERIENCE

- Queue management
- Smart advertising signage
- Cardless access control
- No tickets and no need to stop



SOLUTION OVERVIEW



Checkout Counter

- Queue Management
- POS Integration



Surveillance Center

- Customer Flow Analysis
- Customer Demographics
- Merchandise Insight
- Resource Management



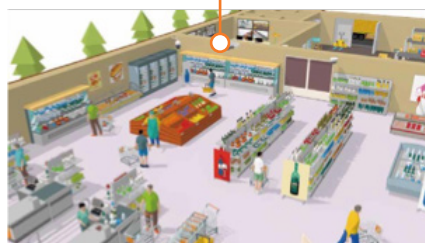
Warehouse

- Cardless Access Control



Entrance

- People Counting
- Customer Demographics



Store Floor

- AI Heat Map
- Regional People Counting
- Smart Advertising Signage



Car Parks

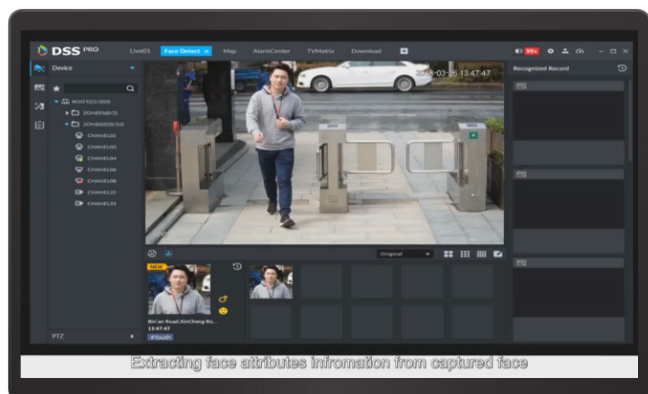
- No Tickets and no Need to Stop
- Records Vehicles
- Super Panoramic



ENTRANCE

Customer Demographics – Understand more about the visitors to your store
Footfall – The main concern of the retail industry

CUSTOMER DEMOGRAPHICS



Customer Flow by Age

The relationship between age distribution and time. Also supports searching the customer flow data for a certain age group.

Customer Flow by Gender & Weather

The relationship between gender and weather. See the impact of weather on customers of different genders.

Accurate Traffic Operation

Understand customer base composition and view traffic analysis for different customer segments. Understand your customers to create more sales opportunities.

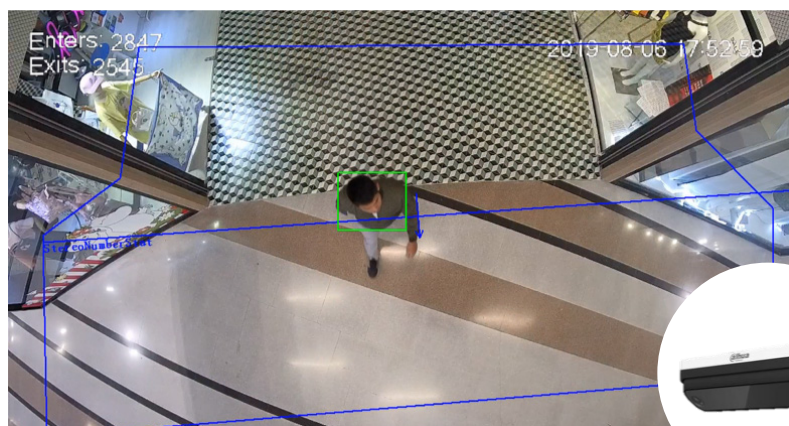


CAR PARKS



Solution Value: Not having to stop improves the efficiency and customer experience

CUSTOMER FLOW ANALYSIS



Entry Rate

It shows you how many people go into the store and how many people pass by. It means you can understand how popular your store is.

Customer Flow Analysis

Know the relationship between customer flow, weather and temperature.



Optimise Staff

Identify traffic cycles across the day, month or year. Ensure there's enough of a staff-customer ratio during peak hours by analysing traffic.



3D Camera

DH-IPC-HDW8341X-3D



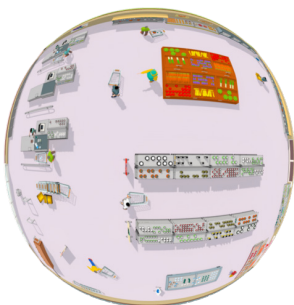


STORE FLOOR

Shelf areas within stores have unpredictable visitor flows and require high levels of security

Customer flow distribution and preventing shoplifting are important for maintaining successful shopping environments

SURVEILLANCE WITHOUT BLIND SPOTS



Dewarping Mode

- Full view of store
- 1 fisheye = 8 conventional cameras



Corridor Mode & Mini PTZ

- 3x optical zoom
- Compact appearance



DH-IPC-EBW81242P

AI Fish-eye Camera



PSDW5631S-B360

Multi-sensor + PTZ Camera



Two-in-One

- Output 2 channels using one device
- Save costs on wiring and installation

Mobile Device

- Supports 4G\Wi-Fi\NFC\Bluetooth\GPS\Compass
- 1080P recording can last longer than 8 hours
- Supports group talk, alarm push, remote/live monitoring



IPC-HDBW4231F-E2

Dual Camera



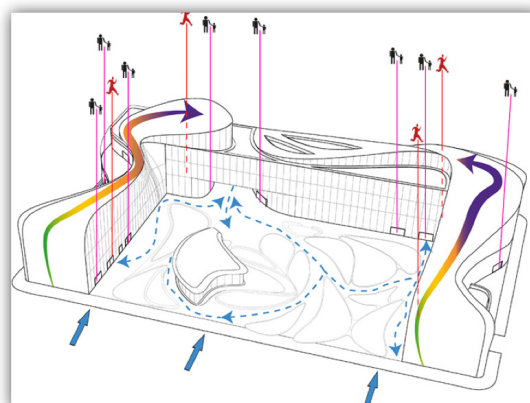
MPT310

Body Worn Camera

CUSTOMER FLOW TRENDS

Dahua's business intelligence helps shopping centres and retailers, including the partners that support them, optimise and innovate at every step of the customer journey.

Heat maps and shopper movements provide actionable insights that allow retailers to optimise shopper distribution, store layout, pricing, merchandising and inventory management in order to best meet the needs of shoppers.



PEOPLE GATHERING ALARM

Floor Crowd Gathering Alarm

Customers distribution could be defined and used to measure the concentration of a crowd and implement the detection of a gathered crowd. Abnormal crowd behaviour can be quickly and accurately detected.



Overloaded Escalator Alarm

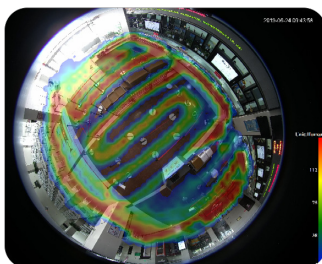
While escalators are among the safest forms of transport in a shopping centre, accidents can occasionally occur as a result of too many people.



Pro Ai Series IPC-HDBW5541R-S

Gathering Alarm Camera

MERCHANDISE INSIGHT

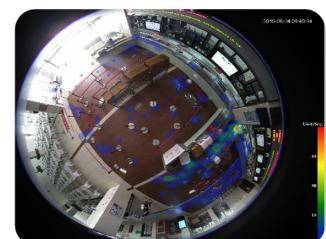


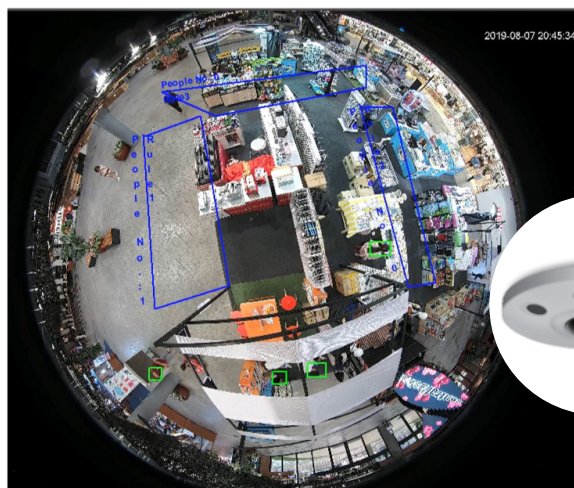
Heat Map for Number of People

Set population threshold as required, max. 1 week range statistics and supports picture output.

Heat Map for Average Loitering Time

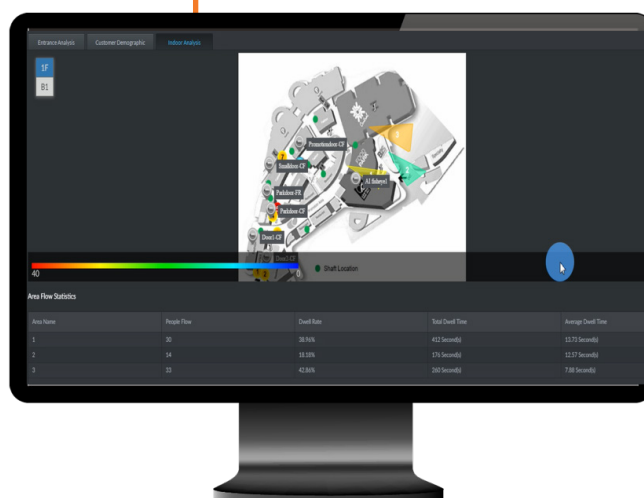
Set loitering time (at least 1 minute) threshold as required, max. 1 week range for statistics and supports picture output.





Merchandise Insight

Understand which area is visited most and how long people dwell for different products across the whole store.



Regional People Counting

- Support 4 regions
- Accurate regional traffic data

SMART ADVERT SIGNAGE



Target Marketing

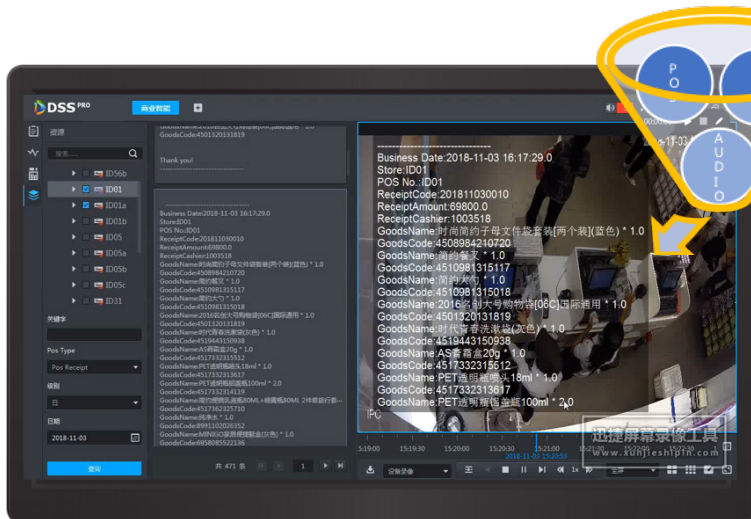
Promote products to your customers by displaying adverts on screens according to their characteristics, such as age and gender, helping increase efficiency of your marketing campaigns.

MEDIA PUBLISHING SYSTEM





POS INTEGRATION



Proof for Transaction Disputes

Provides evidence in the event of a transaction dispute such as wrong change given.

Avoid Employee Fraud

A publicly viewed monitor next to the cashier can effectively discourage and deter employee fraud.

POS Integration

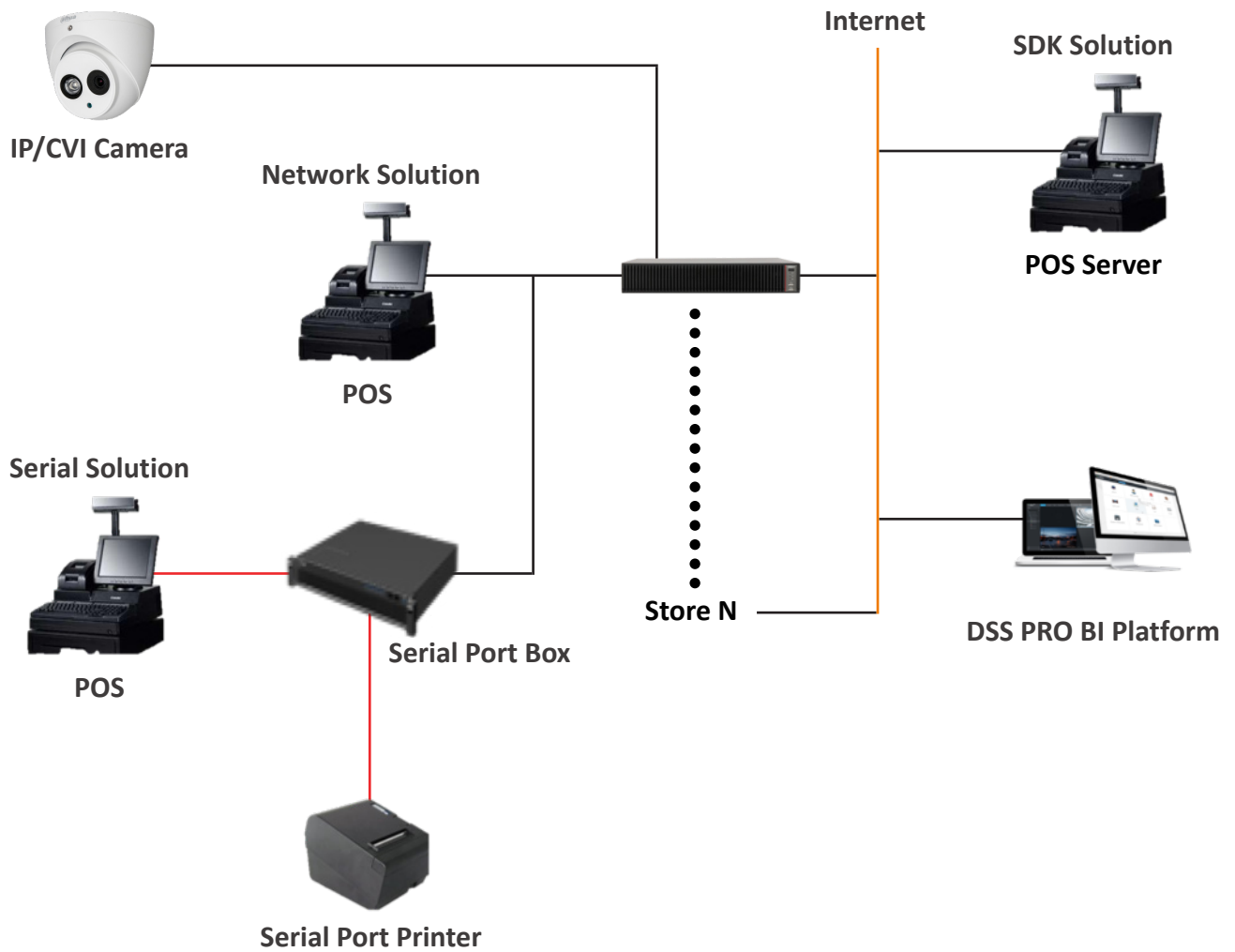
- POS Overlay
- POS Search



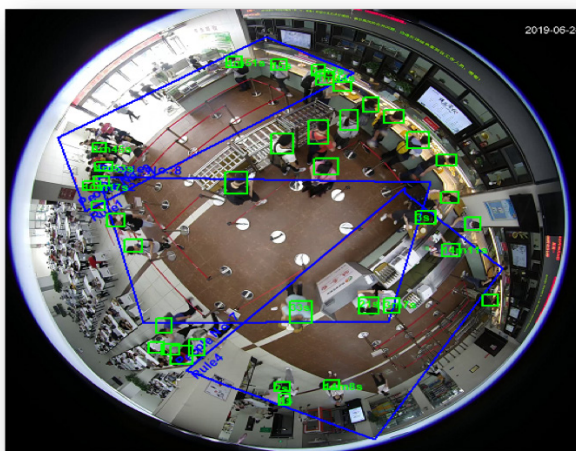
**DH-NVR /
DSS PRO**



DH-IPC-HDBW4431E-AS-S4
Built-in Mic Camera



QUEUE MANAGEMENT



Customer Number



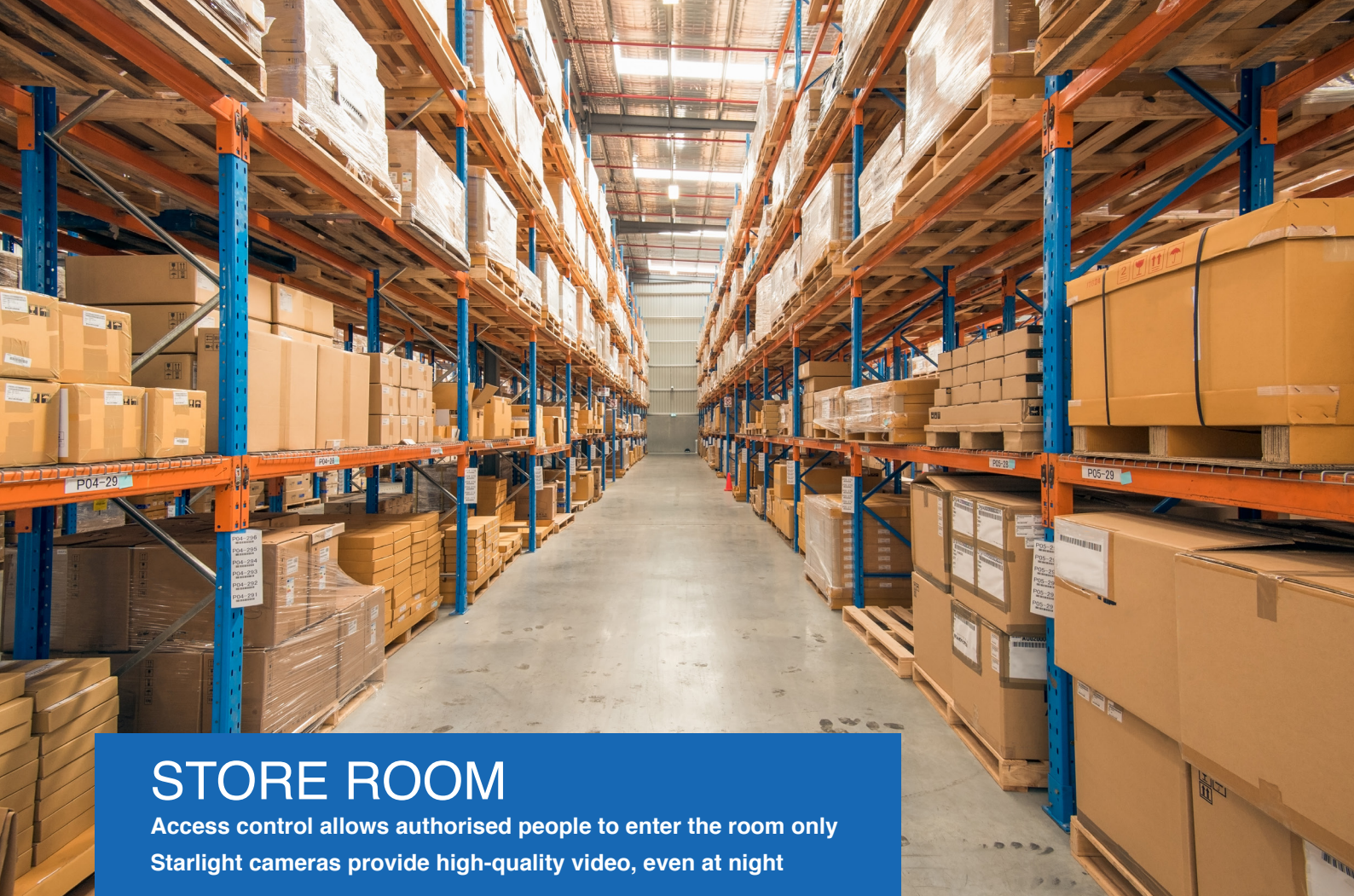
Dwell Time

Alerts the manager to open up additional checkout counters to prevent long queues and delays, making staffing more efficient.



DH-IPC-EBW81242P

AI Fish-eye Camera



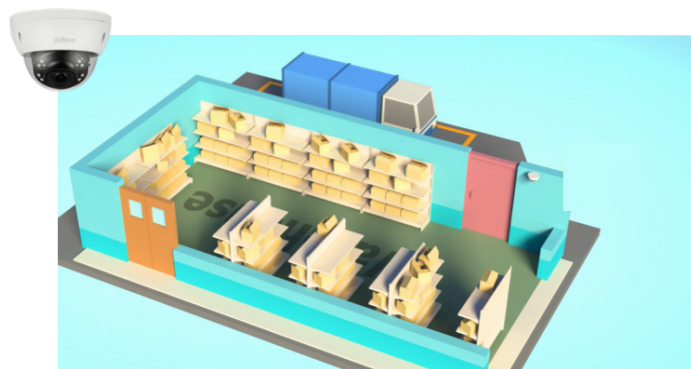
STORE ROOM

Access control allows authorised people to enter the room only
Starlight cameras provide high-quality video, even at night



Keyless Access Control

- Face images, fingerprints, cards and passwords can be recorded
- Using access control to only allow authorised people to enter the room can help with loss prevention



Starlight Camera

- Provides high-quality images both day or night for video verification



ASI7214Y

Face Access Control



DH-IPC-HDBW4431E-AS-S4

Starlight Camera



OFFICE

DSS business analytics help retailers manage their stores, supporting operations with meaningful data

Digital retail – manage stores with data visualisation

REPORTS AVAILABLE ON APP

People counting and people dwell reports on APP allows you to monitor the performance of your shop anywhere and at any time.



DSS Mobile2

Scan to download

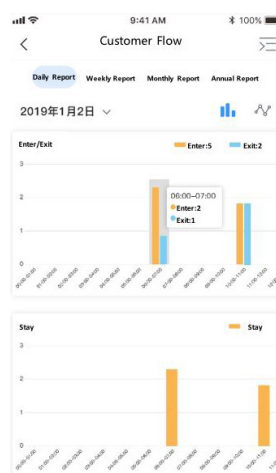


DSS Mobile 2

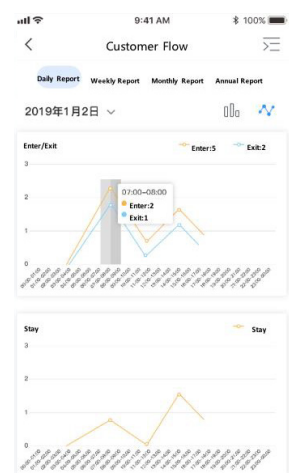
扫描二维码下载
使用手机浏览器输入以下网址: <https://itunes.apple.com>

5.007.0000001 (Build 1489100) - 85.45 MB
更新于: 2019-12-12 20:47

Bar Chart



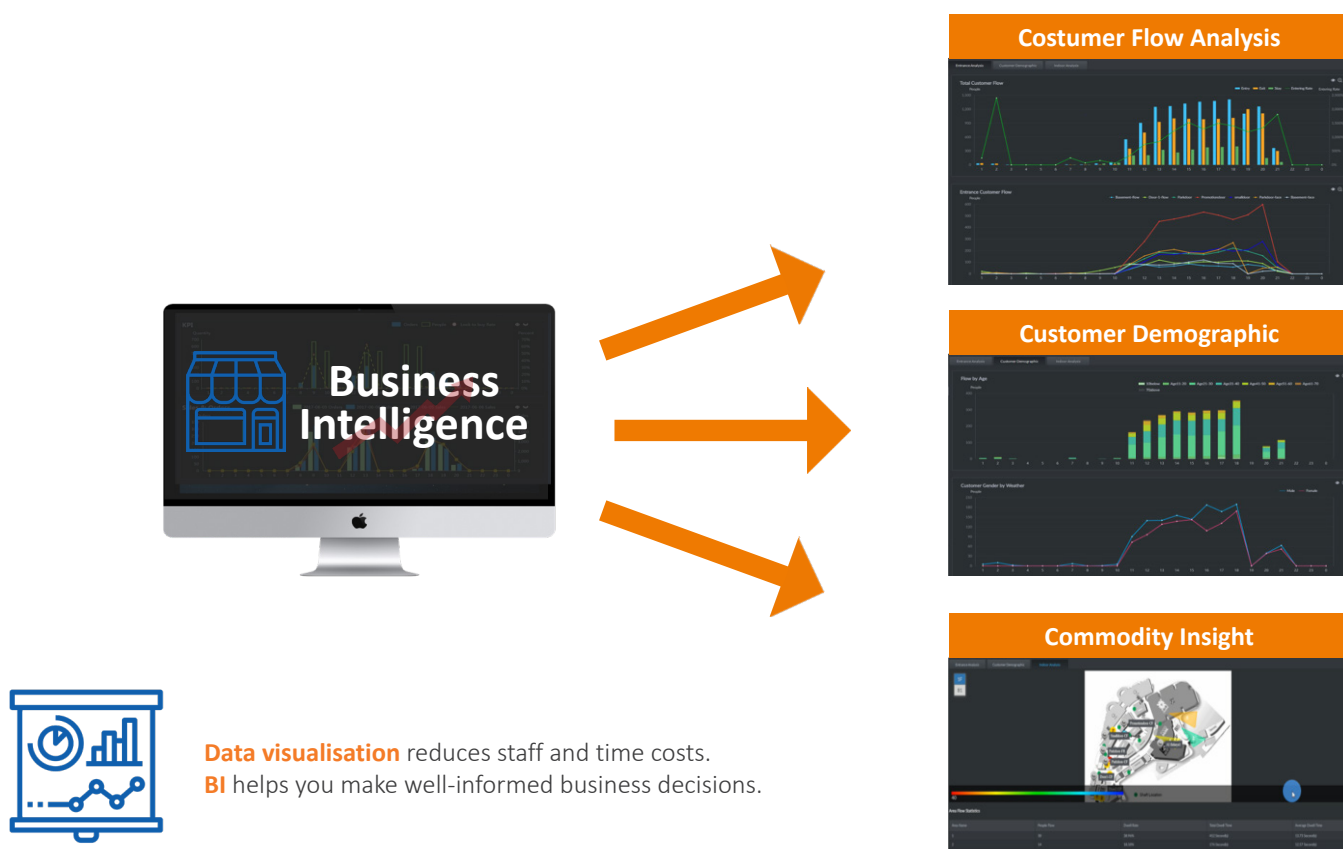
Line Chart



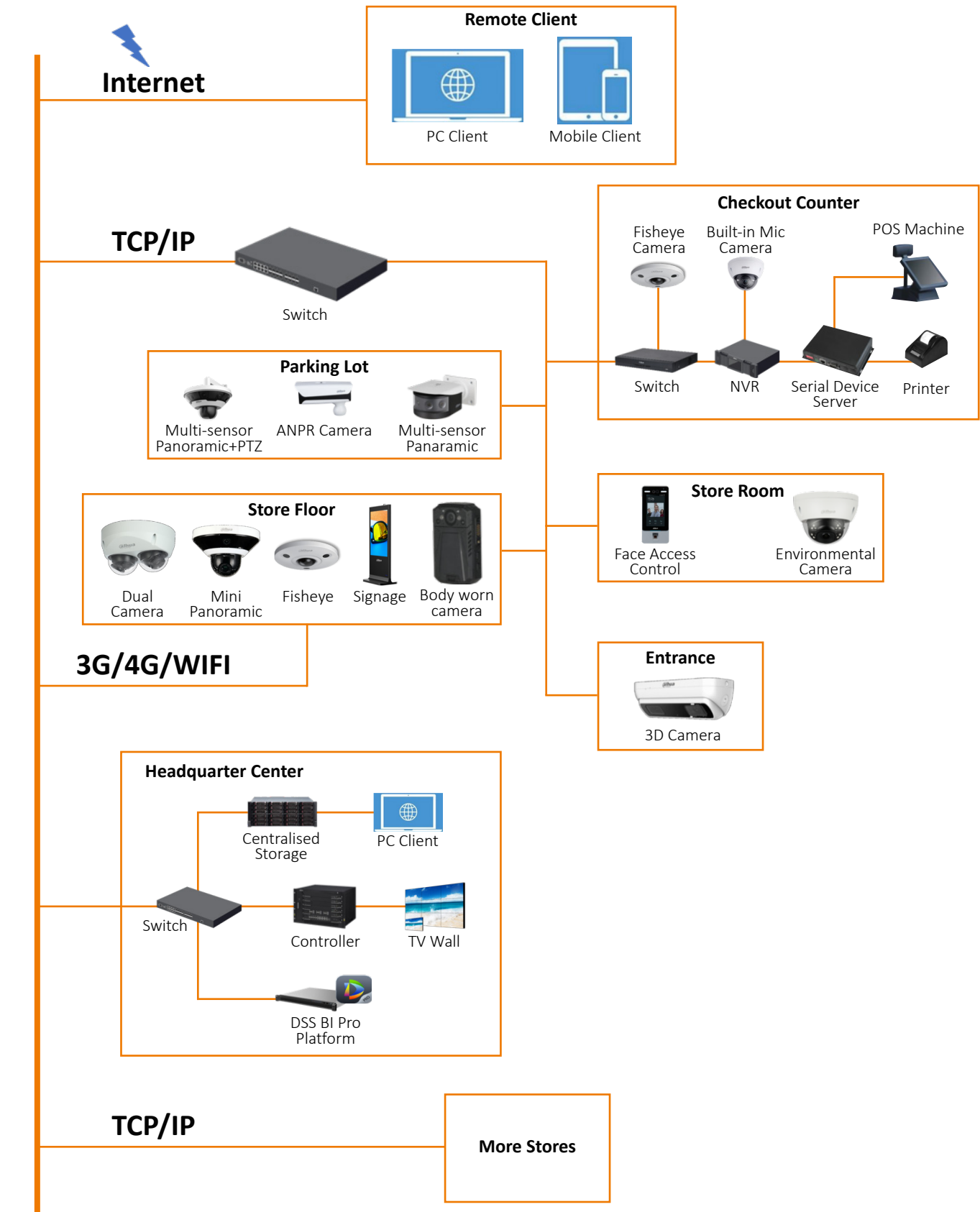
SHOP MANAGEMENT



BUSINESS INTELLIGENCE



TYPICAL ARCHITECTURE





VALUES

WHY CHOOSE DAHUA

Dahua's comprehensive solution is not only for surveillance, but also for efficient business operations.



BI Analysis

Rich data analysis capabilities help you make well-informed business decisions



Store Management

Manage from anywhere with different permissions



Integrated System

Manage all of these devices using the DSS PRO platform

KEY PRODUCTS



IPC-3X49-PV Series

5MP/2MP Full-color Active Deterrence WizSense Network Camera

- Built-in Mic and speaker
- Pre recorded announcement (The announcement can be self-defined)
- Red & Blue LED acts a powerful warning signal



IPC-EBW81242P

12MP Panoramic Network IR Fisheye Camera

- 12MP, 1/1.7" CMOS image sensor
- 12V DC/POE power support
- 2/2 Alarm in/out, 1/1 audio in/out
- People counting in multiple areas, queue management in multiple areas, heat map, and track map



IPC-HFW5541E-ZE

5MP IR Vari-focal Bullet WizMind Network Camera

- ROI, SMART H.264+/H.265+, flexible coding
- 2/1 Alarm in/out, 1/1 audio in/out
- Face capture, perimeter protection and people counting
- Multiple network monitoring: Web viewer, CMS (DSS/PSS) & DMSS



PSDW5631SP-B360

3x2MP Multi-Sensor Network Camera+PTZ Camera

- 12MP, 1/1.7" CMOS image sensor
- 12V DC/POE power support
- 2/2 Alarm in/out, 1/1 audio in/out
- People counting in multiple areas, queue management in multiple areas, heat map, and track map



IPC-HDW8341XP-3D-S2

3MP Dual-Lens People Counting AI Network Camera

- WDR(120dB), Day/Night(ICR), 3DNR, AWB, AGC, BLC
- 2.8mm fixed lens (3.6mm optional)
- People Counting: Supports line crossing people counting, regional people counting



IPC-HDBW4231FP-E2

2x2MP IR Mini Dome Network Camera

- Two 1/2.8" 2Megapixel progressive scan STARVIS™ CMOS
- Smart Detection supported
- Multiple network monitoring: Web viewer, CMS(DSS/PSS) & DMSS



DSS PRO

Comprehensive and Expandable Dahua VMS

- Easily expandable
- Highly reliable
- Highly compatible



PMS

Parking Management System

- Up to 1000 Channels input (includes parking spot detector/VTO/IPC/LED)
- Up to 10 Exit/Entrance Channels input
- Up to 200 Online Users

NVR5-I

WizMind Network Video Recorder

- Up to 16 Channel perimeter protection
- Up to 4 Channel video stream face recognition
- Up to 24 face pictures/sec processing
- Up to 20 face databases with 100,000 face images in total



DHI-LDV49-SAI200

49" Floor Standing Digital Signage

- High quality panel, industrial-grade design, full metal casing, 5mm tempered protective glass.
- Supports picture, audio, video, PDF, IPC stream, time, weather, etc.
- MPS platform provides unified remote management for system integrators and media operators.
- Strong 4 core processor provides powerful decoding capabilities, enabling premium display performance.



DH-IPMECS-2201C series

Access ANPR Camera

- Embraces deep learning algorithm for accurate recognition of vehicles;
- Built-in LED illuminator for simplified installation
- Motorised vari-focal lens, easy for installation and commissioning

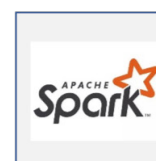
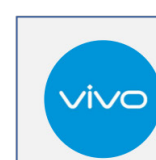
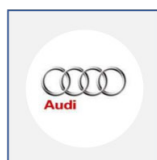
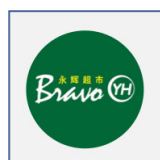


ITC314-PH2A-TF Series

3MP Dual-Lens Parking Space Detector

- 3 MP 1/2.8" inch CMOS, 0.01lux min illumination.
- Dual-Lens design, simultaneously detect up to 6 spaces.
- Indicator supports at least 7 colours.
- Interactive design with parking space indicator.

PARTNERS



We have cooperated with more than **8000** retailers worldwide. We are committed to help our customers achieve digital transformations using AI and BI technology. It will significantly enhance the shopping experience for customers and will enable the intelligent operation of the store to generate more revenue.

Address & Telephone

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Social Media



LinkedIn

Dahua UK & Ireland



facebook

Dahua UK & Ireland



YouTube

Dahua UK & Ireland



Dahua UK & Ireland



Driving Innovation to an AIoT Future

* AIoT is the convergence of Artificial Intelligence (AI) and the Internet of Things (IoT) where connected devices meet human interface. This is enabling unlimited possibilities through the integration of connected devices and security solutions.

* Design and specifications are subject to change without notice.

Ver.1, October 2020

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