

# Retail Solution

2016.11



## **1 Requirements Analysis** ←

## **2 Benefit & Advantage**

## **3 Solution & Function**

## **4 Successful Case**

## **5 Main Products**

# System Composition



Video Surveillance



Alarm



Access Control



POS Integration

# Existing Problems



# What is needed

## Coverage of HD monitoring

Upgrade the current analog system

## Video intelligent analysis

People counting for statistic analysis, detect suspicious movements

## Linkage of multiple systems

Link alarm and access control system to video surveillance system

## Integrated System

## Heat Map

Study customer traffic flow to design the store layout or place the product items cleverly to generate more interests or create more sales

## POS System Integration

Transaction data with attached video can definitely explain why a transaction is void



Video Surveillance



Alarm



Access Control



POS Integration

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# Benefit



**Multistage linkage, provide better security**



**Make management strategies based on the analysis reports of people counting and heat map**



**Create positive customer shopping experiences**



**Bring greater business value for the employer**



# All in one

Video Surveillance

Alarm

Access Control

POS Integration

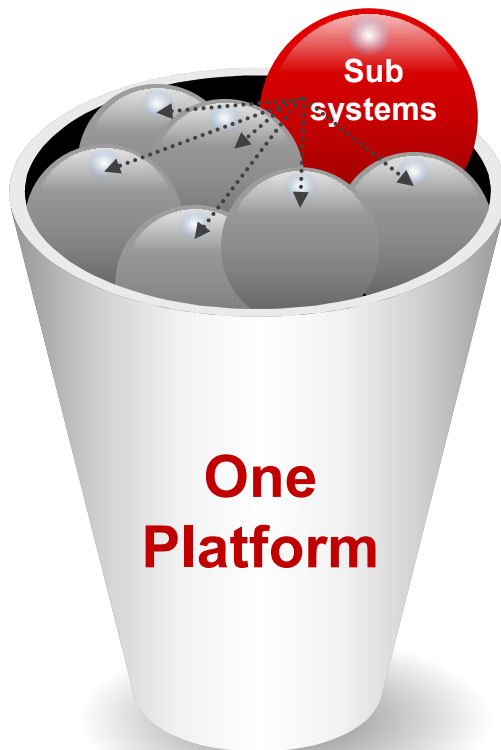
Heat Map

People Counting

Graphic Reports



DSS4004

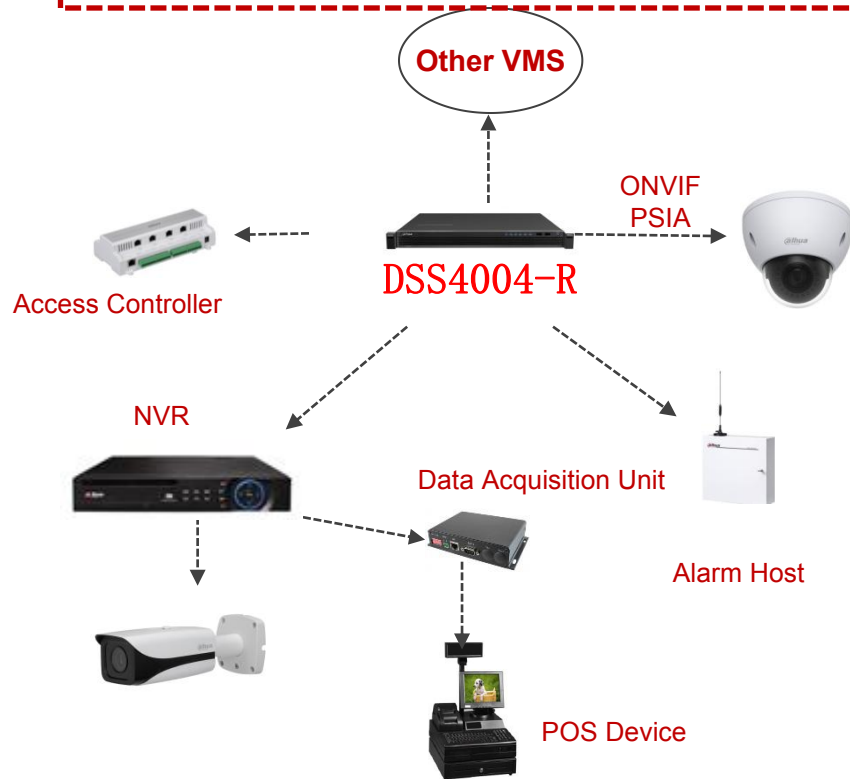


## Advantage

- End-to-End system and device management
- Higher Efficiency of system interaction
- Lower cost of human resource and mastering operation skills

# Compatibility & Openness

**Dahua** takes charge of the **security** problem, thus **partners** only need to focus on **business**.



## Compatibility

- Seamlessly integrate with the existing system
- Compatible with third-party devices of mainstream manufacturer, such as : surveillance, alarm, access control devices, POS devices
- Support multiple protocols : ONVIF

## Openness

- Based on open architecture
- Support SDK for the purpose of integrate with third-party business systems
- Adopt technology based on J2EE middleware for development of value-added services

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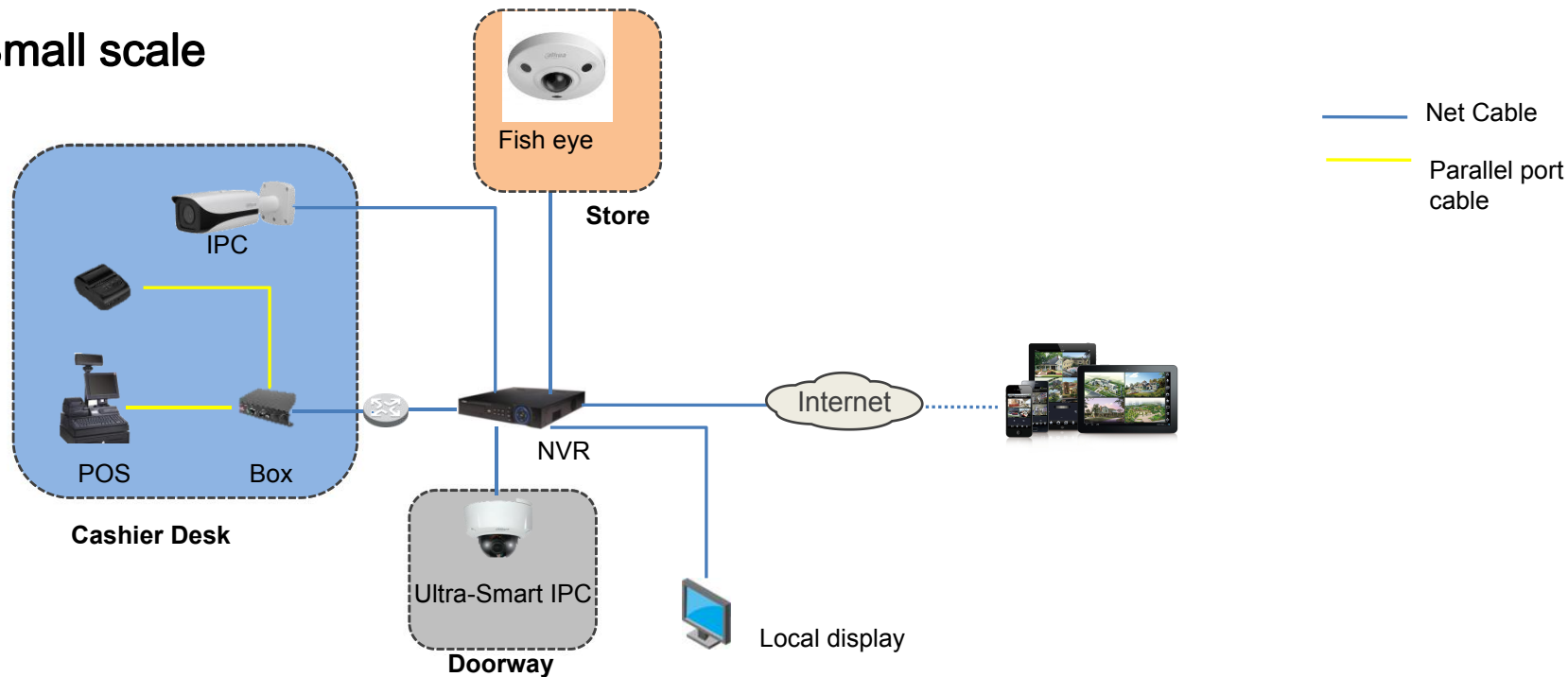


**4 Successful Case**

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# Solution | Topology

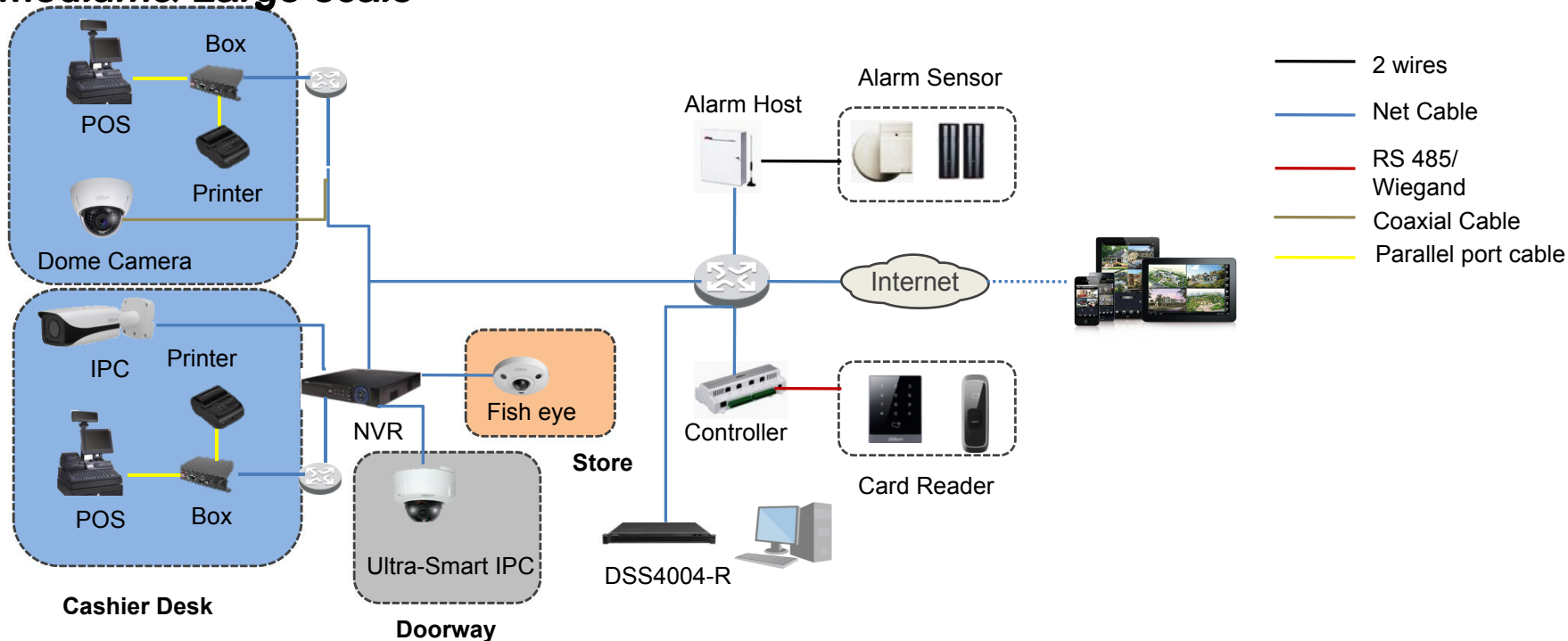
## Small scale



- IPC is installed towards the cashier desk which allows the overlapping of POS information and video.
- Ultra-Smart IPC for people counting is installed towards the doorway of store.
- Fish eye plays a role in monitoring the whole scene of the store.

# Solution | Topology

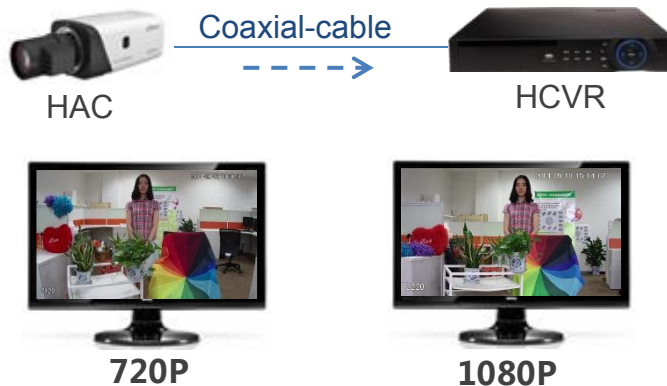
## Medium & Large scale



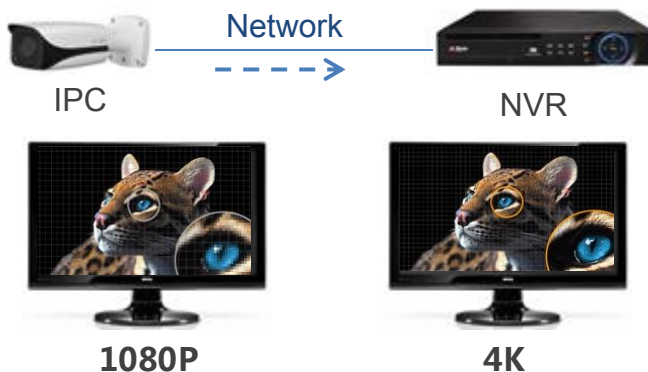
- IPC or HDCVI camera is installed towards the cashier desk which allows the overlapping of POS information and video.
- Ultra-Smart IPC for people counting is installed towards the doorway of store.
- Fish eye plays a role in monitoring the whole scene of the store.
- Access control and alarm device are installed in the store or warehouse according to your needs.
- Unified management of the DSS platform

# High Definition

## 1 HDCVI



## 2 IP



## Advantage

- 1999 – 2010 provides low-definition resolution of CIF and D1.
- 2010 – Now provides **HD** resolution which supports both **HDCVI** and **IP** cameras.
- What's more, provides **4K** resolution which supports **IP** cameras.

## Benefit

- Provides basic protection for business applications by offering videos and pictures of higher resolution.
- Provides strong evidences to the police when exception events happen, which leads to faster crime-solving.

# Solution | Business Management



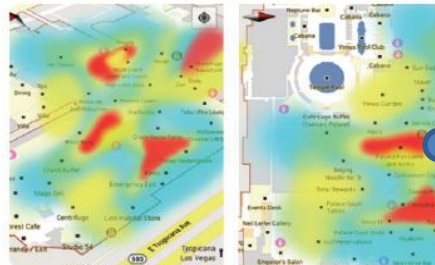
## People Counting

Statistic the number of customers of entrance or exit, forming report and make strategies for manager



## POS Integration

Each transaction is stored with attached video, support search and playback



## Heat Map

Heat Map intelligent camera can output customer activity density to show which area attracts most customers

# Solution | POS data overlay

The screenshot displays the DSS-R Digital Surveillance System interface. It features two camera feeds side-by-side, each with a corresponding POS data overlay. The top-left feed shows a cashier serving a customer, with a timestamp of 2015-08-28 09:40:12. The top-right feed shows a cashier serving a customer, with a timestamp of 2015-08-28 15:20:23. The interface includes a top navigation bar with 'DSS-R Digital Surveillance System', 'Homepage', 'Preview', and 'Add' buttons. A right sidebar contains a tree view of the system structure, including 'root (2/6)', '10.33.6.101D', 'test155', 'cam1', 'cam2', 'cam3', 'cam4', 'posNVR(3/3)', 'pos1', 'pos2', and 'pos3'. A bottom status bar shows 'Full Screen' and '调整POS窗口亮度' (Adjust POS window brightness).

**Real-time video**

**POS information**

| Name      | Price | Quantity | Amount |
|-----------|-------|----------|--------|
| pizza     | 20.00 | 1.00     | 20.00  |
| hamburger | 10.00 | 1.00     | 10.00  |
| beef      | 30.00 | 1.00     | 30.00  |
| apple     | 15.00 | 2.00     | 30.00  |
| pepsi     | 5.00  | 2.00     | 10.00  |
| wine      | 13.00 | 1.00     | 13.00  |
| Total:    |       | 8.00     | 217.00 |
| Paid:     |       |          | 217.00 |
| Change:   |       |          | 0.00   |

| Name       | Price  | Quantity | Amount |
|------------|--------|----------|--------|
| milk       | 100.00 | 1.00     | 100.00 |
| beef       | 110.00 | 1.00     | 110.00 |
| wine       | 30.00  | 3.00     | 90.00  |
| plate      | 160.00 | 1.00     | 160.00 |
| potato     | 26.00  | 2.00     | 52.00  |
| fruitjuice | 44.00  | 2.00     | 88.00  |
| Total:     |        | 10.00    | 600.00 |
| Paid:      |        |          | 600.00 |
| Change:    |        |          | 0.00   |

- Real-time video and the binding POS information can be showed simultaneously in the preview window

# Solution | POS search and playback

The screenshot displays the DSS-R Digital Surveillance System interface. The top navigation bar includes 'Homepage', 'POS SEARCH', and 'Add'. The main search area on the left allows filtering by 'From' (2015-8-28 08:00:00) and 'To' (2015-8-28 24:00:00) time, and 'Keywords' (beef). Below the search buttons, a list of results is shown, each with queue number, date, time, cashier, and a table of items. The first result shows a purchase of 'beef' for 30.00. The second result shows a purchase of 'beef' for 110.00. The third result shows a purchase of 'beef' for 110.00. A video playback window on the right, titled 'ChannelPos1', shows a cashier serving a customer. A blue line connects the 'beef' keyword in the search results to the video playback window, indicating that the video is filtered by the search criteria.

**POS Information**

**Video Playback**

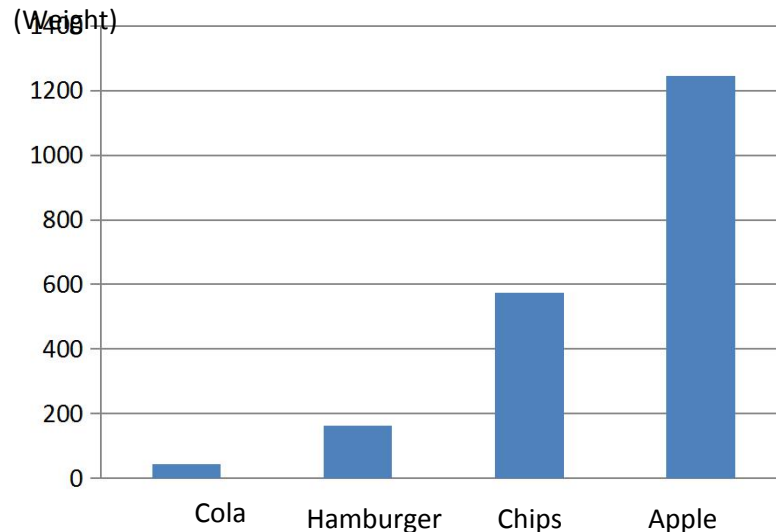
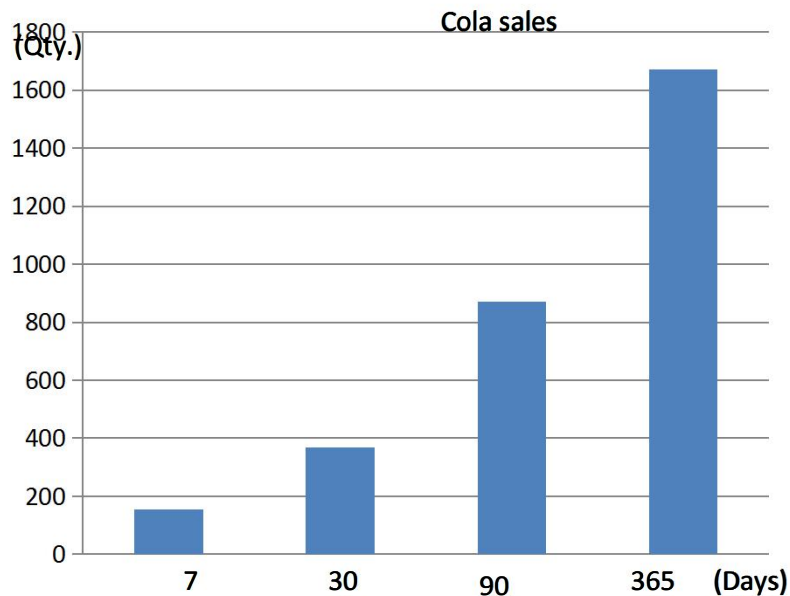
| Name           | Price | Quantity | Amount |
|----------------|-------|----------|--------|
| beef           | 30.00 | 1.00     | 30.00  |
| <b>Total:</b>  |       | 8.00     | 217.00 |
| <b>Paid:</b>   |       |          | 217.00 |
| <b>Change:</b> |       |          | 0.00   |

| Name           | Price  | Quantity | Amount |
|----------------|--------|----------|--------|
| beef           | 110.00 | 1.00     | 110.00 |
| <b>Total:</b>  |        | 10.00    | 600.00 |
| <b>Paid:</b>   |        |          | 600.00 |
| <b>Change:</b> |        |          | 0.00   |

- Search the key words such as time, trade name, POS terminal to replay the corresponding video

## Sales Report

- Management platform generate sales reports based on POS data.
- Show the commodity sales situation of different stages intuitively



# Solution | Remote Control



Monitor or DMSS (mobile client)



**See Live View**

**Watch Playback**

**Notification Push**

**Take Snapshots**

## Benefit

- Watch your store wherever you are
- Alarm Push enables you to acquire instant messages for what happened in your monitoring environment
- Real-time grasp the store situation, improve the efficiency of management

**Connect to your surveillance system with your mobile devices anytime and anywhere**

**Too many customers, please increase more clerks**

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# Successful Case



Shopping Mall Upgraded with  
Dahua IP Solution in **Barcelona**

Dahua 2-megapixel IR bullet and eyeball feature the design to meet the scenarios for both indoor and outdoor. These cameras are perfectly designed for public open areas, entrances and exits, cashier in stores and parking lots. The POE NVR saves a lot of time and support 8-ch 1080P playback; meanwhile, it support dual-stream recording, which is to record the real-time main stream and extra stream of all IP camera at the same time.



Dahua Provides HDCVI Solution  
for Hypermarket in **Muscat**

The LULU Hypermarket located in Muscat, combined with current 3 malls, which is the largest shopping mall in Oman. Dahua provides HDCVI solution to cover both inside and outside of mall, as well as parking floor, due to the long distance transmission and high definition advantage of HDCVI technology. Moreover, Dahua also provides central storage devices, control center and DSS management platform to secure the Hypermarket.

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**Retail all-in-one device**

**Product Model: DH-DSS4004**

## Product Overview

- Embedded Linux machine, 30 \* 24 hours stable operation
- Video monitoring, alarm, access control, POS integration
- Support single input of 300Mbps, forwarding of 300Mbps, and storage of 100Mbps.
- 4 local hard disks



## 2MP WDR IR Dome Network Camera

### Product Overview

- > 1/2.8" 2Megapixel progressive scan Exmor CMOS
- > H.265&H.264 triple-stream encoding
- > 50/60fps@1080(1920×1080)
- > Smart Detection supported
- > WDR(120dB), Day/Night(ICR), 3DNR, AWB, AGC, BLC
- > Multiple network monitoring: Web viewer, CMS(DSS/PSS) & DMSS
- > 2.7mm ~12mm motorized lens
- > 1/1 Alarm in/out, 1/1 audio in/out
- > Max. IR LEDs Length 50m
- > Micro SD memory, IP67, IK10, PoE
- Tripwire, Intrusion, Object Abandoned/Missing



## 2MP WDR IR Dome Network Camera

### Product Overview

- > 1/2.8" 2Megapixel progressive scan CMOS
- > H.265&H.264 triple-stream encoding
  - 50/60fps@1080P(1920×1080)
    - > WDR(140dB), Day/Night(ICR), 3DNR,AWB,AGC,BLC
    - > Multiple network monitoring: Web viewer, CMS(DSS/PSS) & DMSS
    - > 2.7mm ~12mm motorized lens
    - > Max. IR LEDs Length 50m
    - > Micro SD memory,IP67,IK10,PoE
  - Face Detection, People Counting, Heat Map



## 6 Mega Full HD Vandal-proof IR Network Fisheye Camera

Product Model: DH-IPC-EB8600

### Product Overview

- Max 25/30fps@6.0M(3072x2048)
- Multiple De-wrap Mode: Original , Panoramic, Double Panoramic, 1+3,Eptz,4 pictures
- DWDR
- Max.IR LEDs Length 10m
- Micro SD memery,IP67,IK10,PoE



## 2MP WDR HDCVI IR Dome Camera

### Product Overview

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- > 120dB true WDR, 3DNR
- > Max 30fps@1080P
- > HD and SD dual-output
- > 3.6mm fixed lens (2.8mm, 6mm optional)
- > Max. IR length 30m, Smart IR
- > IP67, IK10, DC12V

## Product Overview



### 128 Channel Ultra 4K H.265 Network Video Recorder

- > Intel Processor
- > Max 64/128 IP Camera Inputs
- > Max 384Mbps Incoming Bandwidth
- > Up to 12MP Resolution for Preview and Playback
- > Supports RAID 0/1/5/6/10/50/60
- > iSCSI and Mini SAS for Expanded Storage Space
- > Smart Tracking and Intelligent Video
- > 7-inch HD LCD Monitor



## **16 Channel 1080P 2U Digital Video Recorder**

### **Product Overview**

A red arrow pointing to the right, indicating the direction of the product overview.

- >Embedded processor
- >H.264+/H.264 video compression
- >Support HDCVI/AHD/CVBS video inputs
- >Max 64 channels IP camera inputs, each channel up to 12MP
- >Max 256Mbps Incoming Bandwidth
- >Smart Search and Intelligent Video System



***Dahua Technology  
Make Your Life Safer***