DSS Introduction

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Catalog

1	Product Series
2	Functions Introduction
3	ADD-ON Business
4	DSS Deployment Characters
5	Industry Application
6	Success Cases

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Name rule

DSS	7	0	16	D	X	_	X

Product line name
DSS

Product Form
7:Intel Core

Generation

HDD
16:16HDD

D:
LCD Screen

Function
R: Redundant Power

Industry version
-B: Basic
-M: Mobile
-T: Transport
-H: House

DSS	4	0	04	_	X

Product line name
DSS

Product Form
4:Intel Baytrial

Generation

HDD
04: 4HDD

Industry version
-B: Basic
-M: Mobile
-T: Transport
-H: House

DSS

Pure Software

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DSS7016D/DSS4004

DSS7016D *Dss4004*	Embedded	Linux	Disk	Mobile phone client	B/S and C/S client	

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DSS7016D

Centre management devices

VMS

SERVER
(Windows server2008)

IP SAN

DSS7016 platform Network

DSS7016

Devices

Encode device
IP camera,
DVR & NVR
SVR/EVS

Alarm device
Alarm host

DSS client
B/S client/S client
Mobile phone client

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DSS7016D/DSS4004

Hardware costs

Windows Server

Software costs

Energy saving

DSS7016D/DSS4004

Plug and play

- Power On, and according to “Quick wizard” to complete the initialization configuration.
- Relieve the series of complicated steps for installation of OS, software and database, to realize the real "plug and play“.

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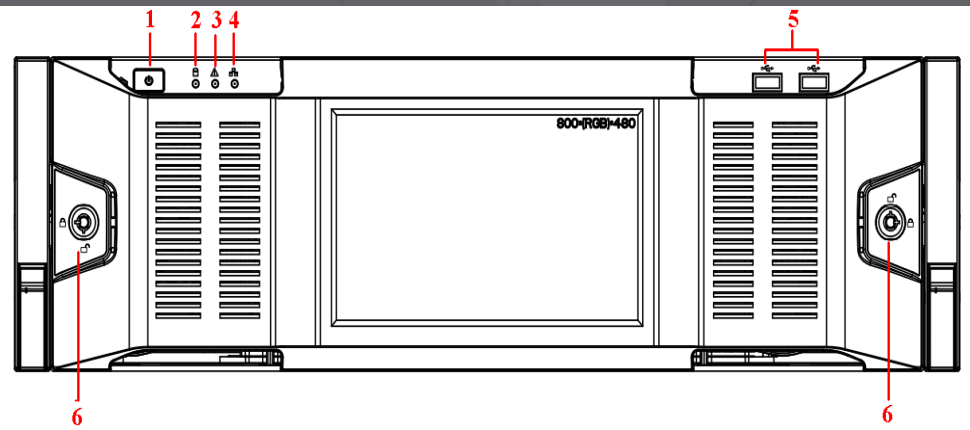
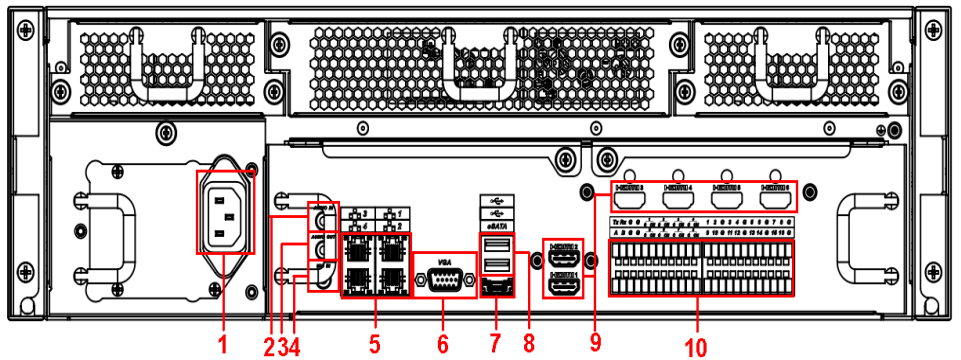
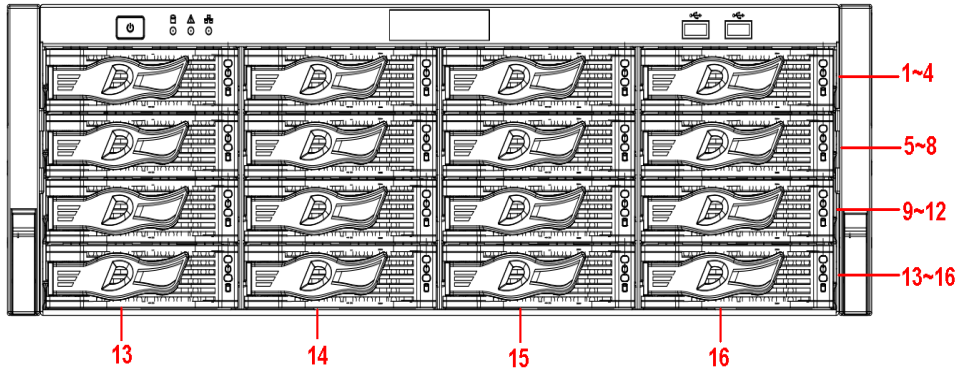
DSS7016D



1-Power Button
2-System Indicator
3-Alarm Indicator
4-Net Indicator
5-USB
6-Front Panel Lock



1- Power Interface
5- Net Interface
6-VGA
8-USB
9-HDMI
10-RS485



1-System HDD
2-16- Storage HDD

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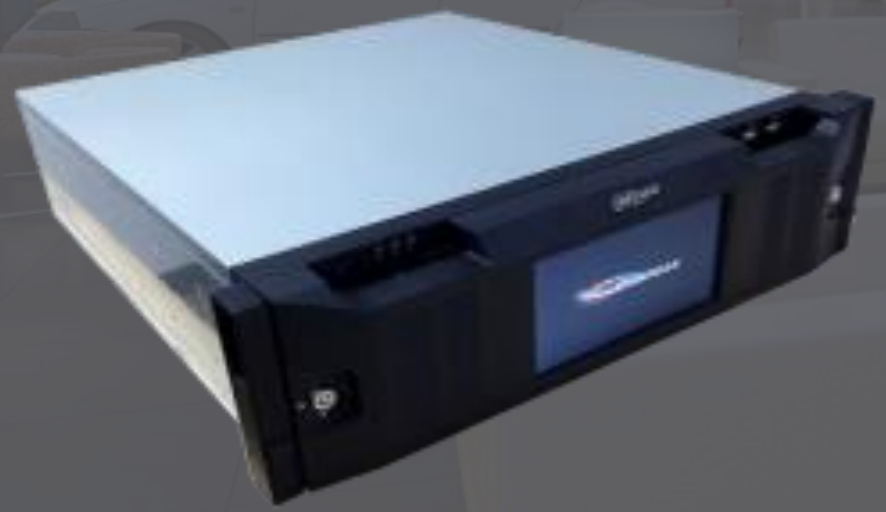
DSS7016D



- Embedded device, 30*24 stable operation
- High-performance stream media transfer and storage capability
- Support hot standby
- Support local storage and IP-SAN storage
- Support 20 distributes server and 5-level cascade
- Max support 2000 channels (Max support 500 devices)
- Support unlimited accounts management and 8000 online users
- Support 700M transfer capability
- Support 700M local storage capability
- E-map max displays 200-channel on one screen
- Process 1000-channel alarm per second.

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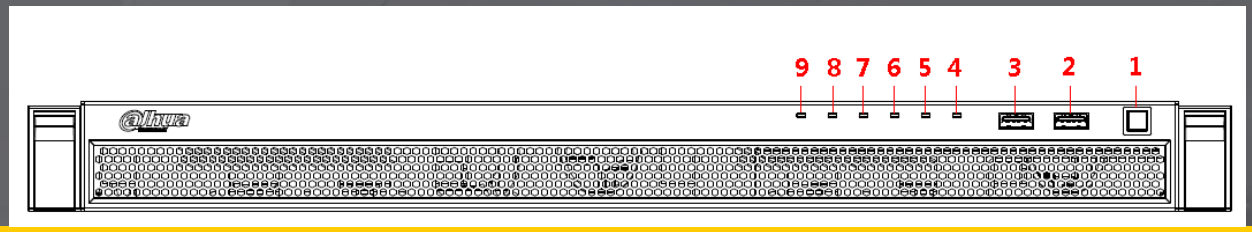
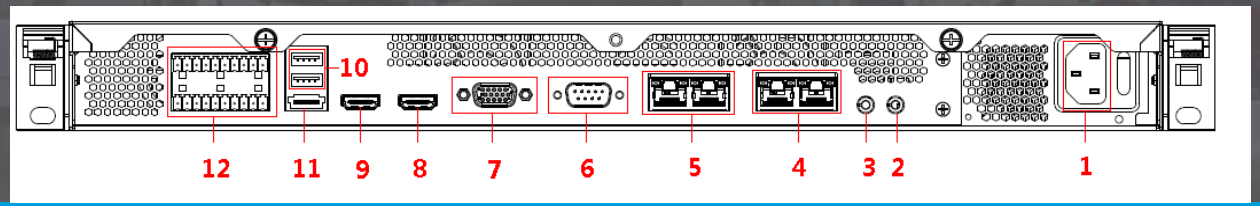
DSS4004



Front Panel

1- Power Button
2- USB3.0
3- USB3.0
4- HDD4
5- HDD3
6- HDD2
7- HDD1
8- Alarm Indicator
9- Network Indicator



Back Panel

1- Power Interface
2- Audio Output
3- Audio Input
4- Ethernet Port 1~2
5- Ethernet Port 3~4
6- RS232 Interconnects
7- Video VGA Output
8- HDMI1
9- HDMI2
10- USB2.0×2
11- eSATA Interface
12- Alarm In & Out

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DSS4004

- Integrated design, lower combined cost
- Simple deployment, one-key upgrade
- Support hot standby
- Support local storage and IP-SAN storage
- Support 20 distributes server and 5-level cascade
- Support 200 IP devices and 1000 channels
- Support unlimited accounts management and 8000 online users
- Support 300M transfer capability
- Support 100M local storage capability
- E-map max displays 200-channel on one screen
- Process 1000-channel alarm per second.

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DSS Pure Software

- **Operating System**

  Centos 6.7 64-bit

- **Recommend Hardware**

  Memory@8GB

  System Disk@1TB

  Ethernet port@1000Mbps

- **ISO File**

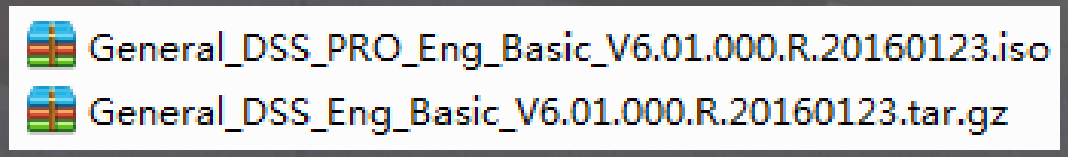
  Pure software installed for the first time, need to burn the ISO file into U disk images file, then the server start from U disk and start the installation

- **Bin File**

  After initial ISO installation, can upgrade the DSS version by "Configtool ", just like DSS7016D

- **License**

  Through license control add-on module and channel num.



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What's the different between DSS and PSS?

Key Parameters		DSS	Smart PSS
Device	Dahua Device	More than 250 Device and 1000 channels	256 devices， 2000 channels
	Auto Register	200个IP	No
User Management	User Management	8000 online users	No
	Authority management	Support	No
Video Detect	Video quality diagnosis	Support	No
Client Access Simultaneously	Include TV Wall	Support	Limit by Device Bandwidth
Center Storage	Local	Support	PC NVR
	ISCSI	100Mbps	No
Scalability and stability		Support Distribute, Hot standby, N+M	No
EMAP		Raster、Google Online/Offline	Only Raster
Client	Whether you need configuration data repeat on each PC	No，only need to login by same account, all data storage in DSS Server	Yes
Mobile Client		DSS Mobile	No
Others		Mobile DVR, Intelligent Traffic, Retail, Intelligent Building, Parking Lot	**V6.01.000**

What's the different between DSS and PSS?

DSS	Smart PSS
Network integrated management mode	Local management mode
Transfer Mode, support up to 1000 online users	Direct Mode, supports only 10 users simultaneously access
Application integration and information integration, support alarm, access control,	Unable to integrate advanced application and information integration
Authority management	No authority management
Scalability and Stability	
Unified management of whole system resources	Can not effectively solve the problem of resource conflict

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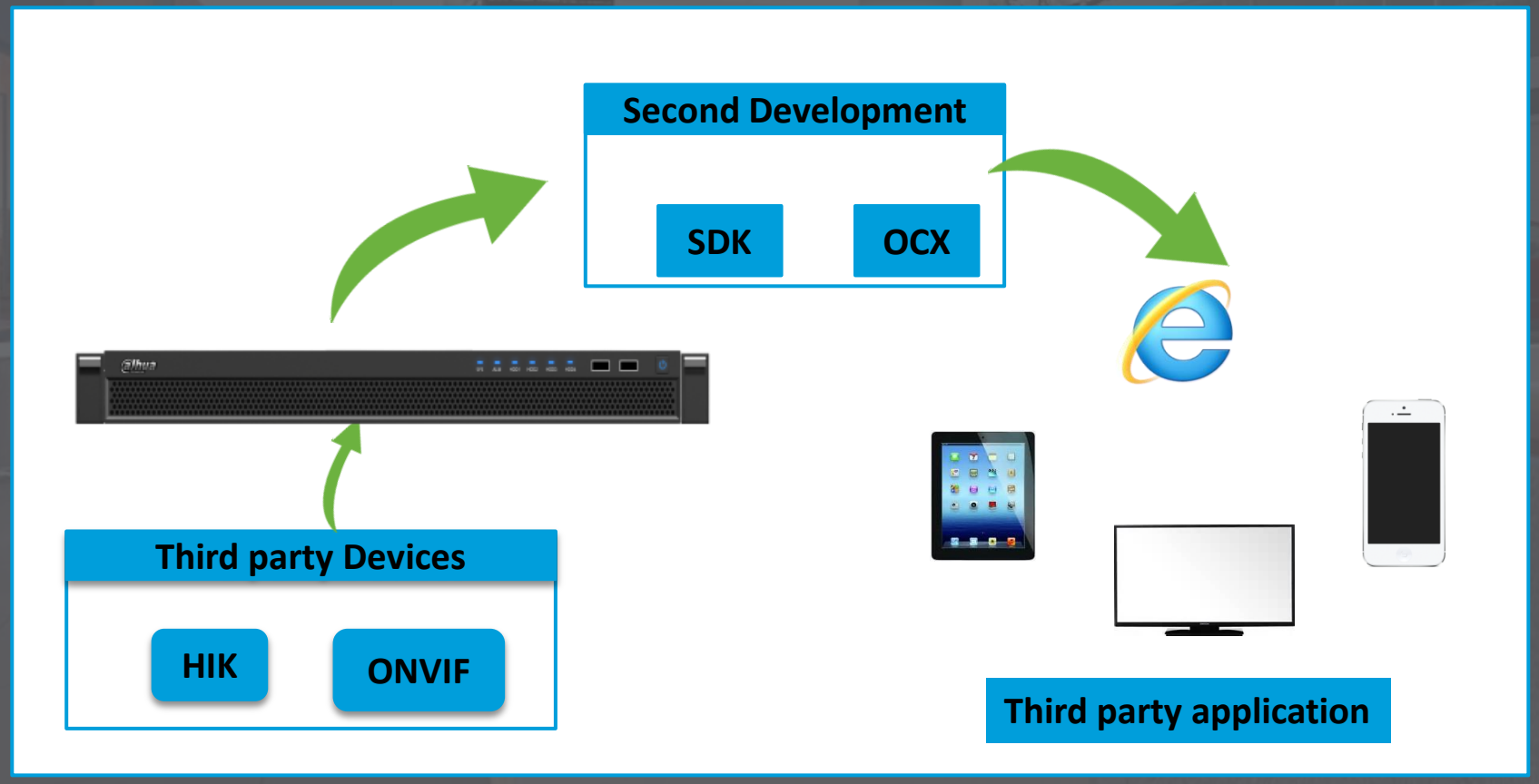
Open Third party

- Open platform SDK， Support partners to develop their own business and Applications. Support windows, IOS, android platform.
- Support ONVIF devices, third party equipment (HIK).



Main Function

- Get Organization
- Live View: snapshot, local record, PTZ
- Playback: search, play, download
- Alarm: search, open/close alarm
- Audio talk
- TV Wall: get TV Wall case and info, operator the TV Wall

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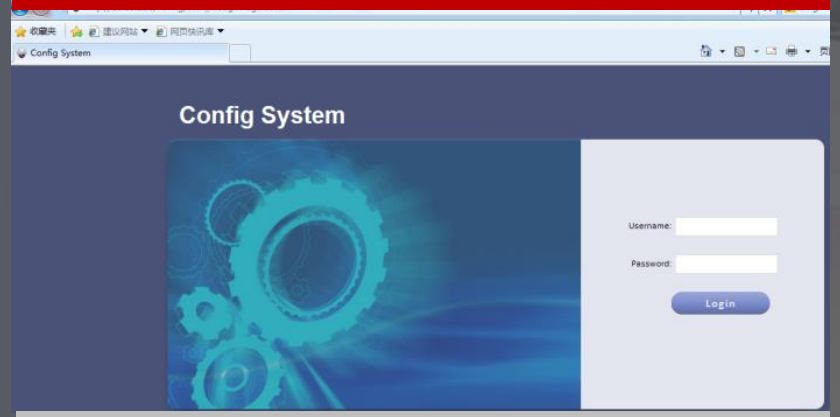
V6.01.000

DSS COMPONENT

CONFIG SYSTEM



http://ip/config

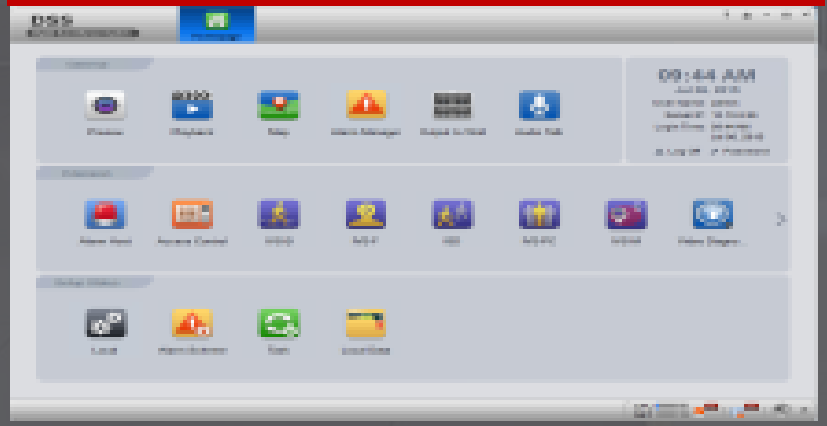
WEB

http://ip

WEB Client

http://ip , login by operator

PC Client



DSS Mobile

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Fisheye

IPC/PTZ

NVR

IVS

Device Management

Alarm Host

Controller & Keyboard

Third-party devices(ONVIF, HIK)

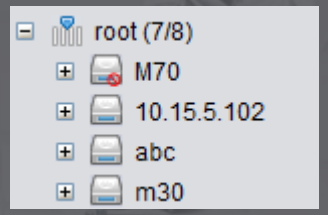
Access Control

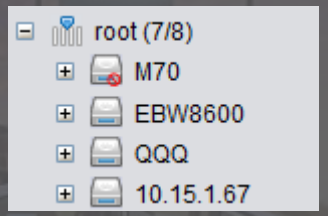
Authority Management

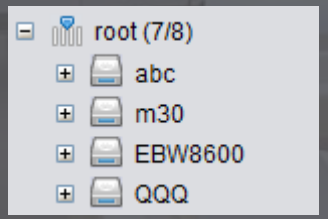
User A

User B

User C







Live view

TV Wall

alarm

Playback

Live view

Playback

Live view

TV Wall

Different Device

Active Time Period

Different Rights

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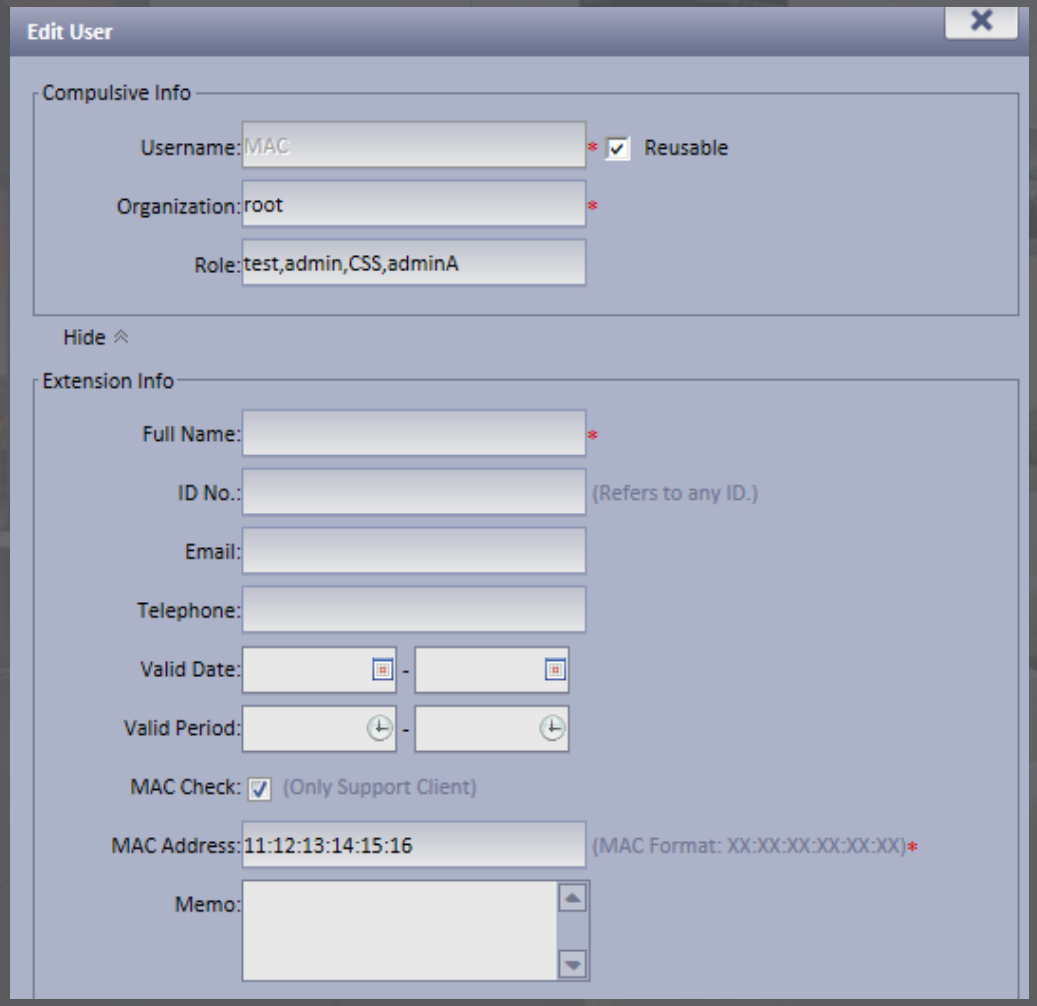
User Login Limit

- **MAC address limit**



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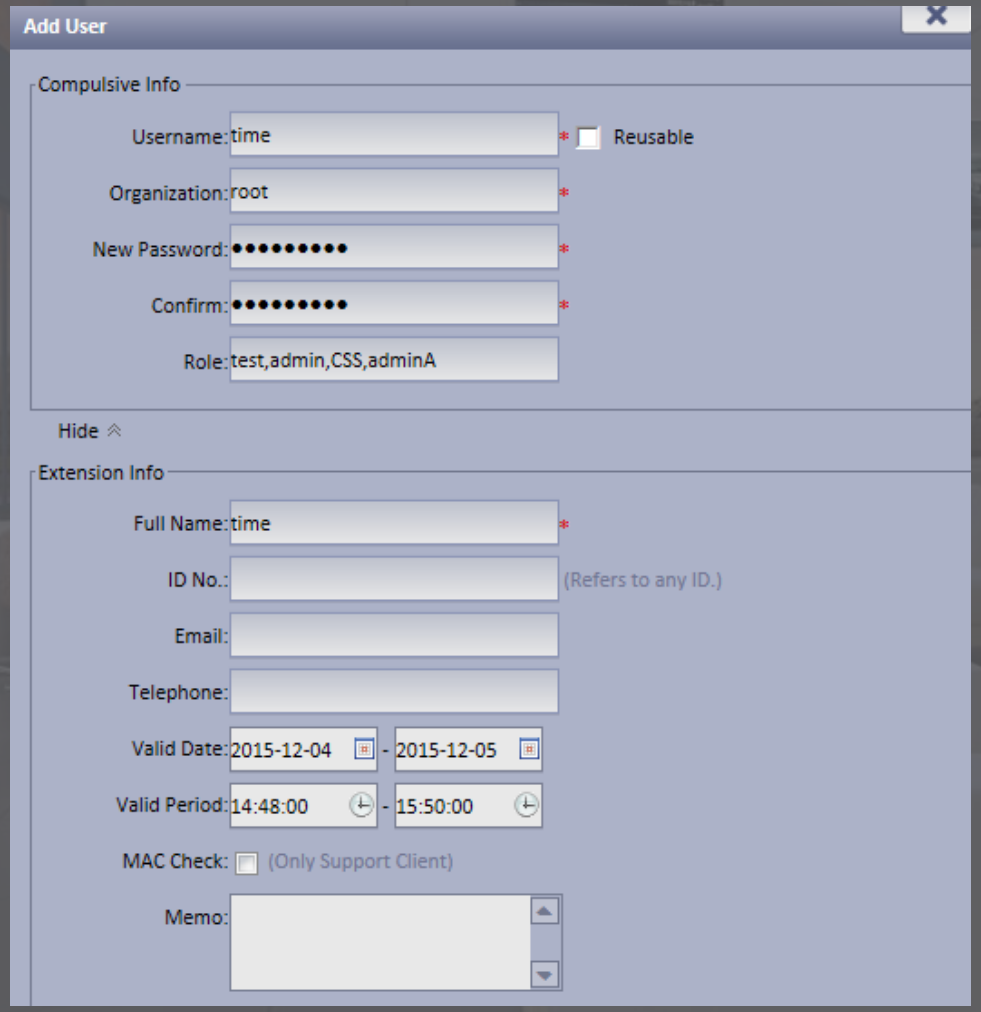
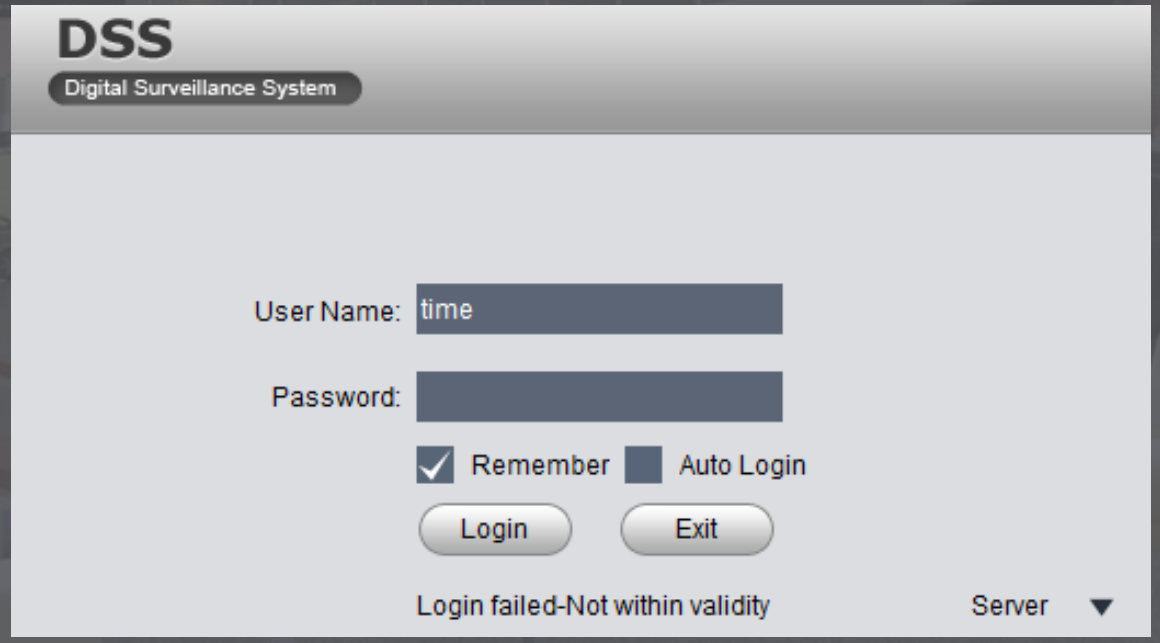
User Login Limit

- **Active period limit**





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Alarm Management

Video detection

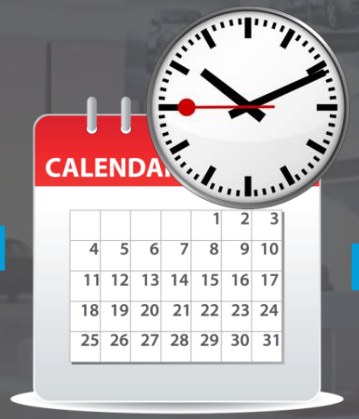
Access control

External alarm

Intelligent detection

Device status

Alarm host



History Log

Live Video

SMS

Mail

TV Wall

Record

Alarm Source

time period

Linkage

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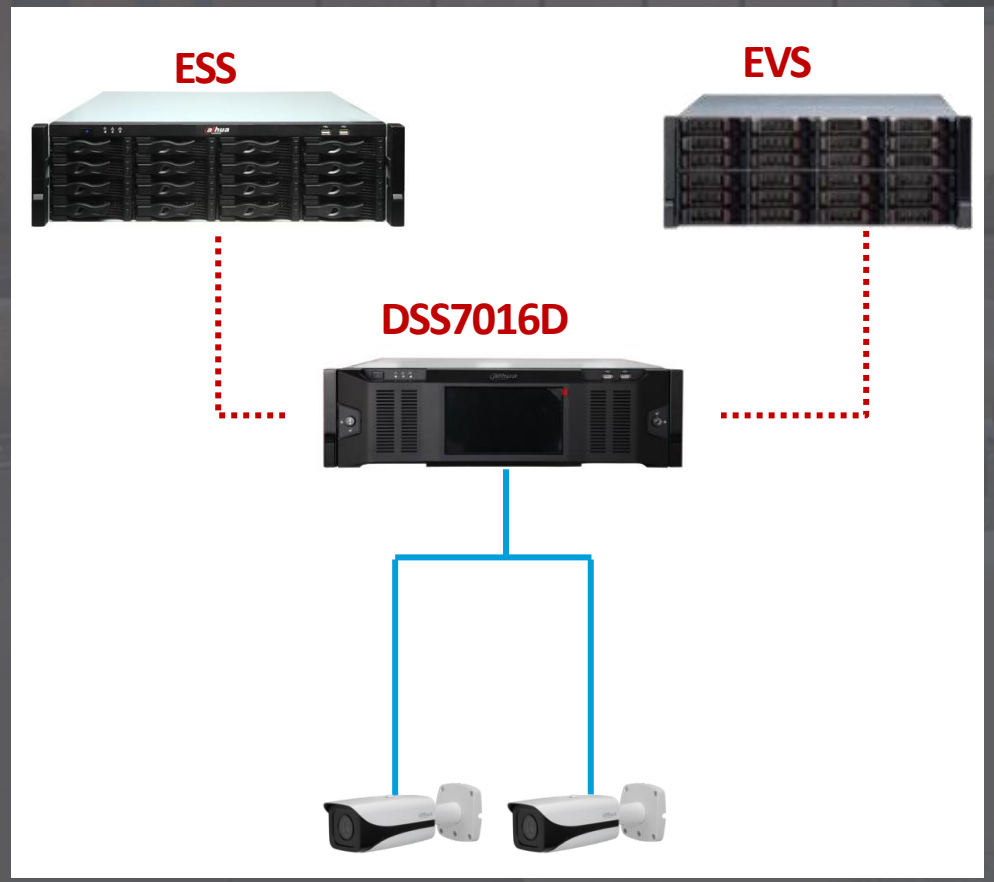
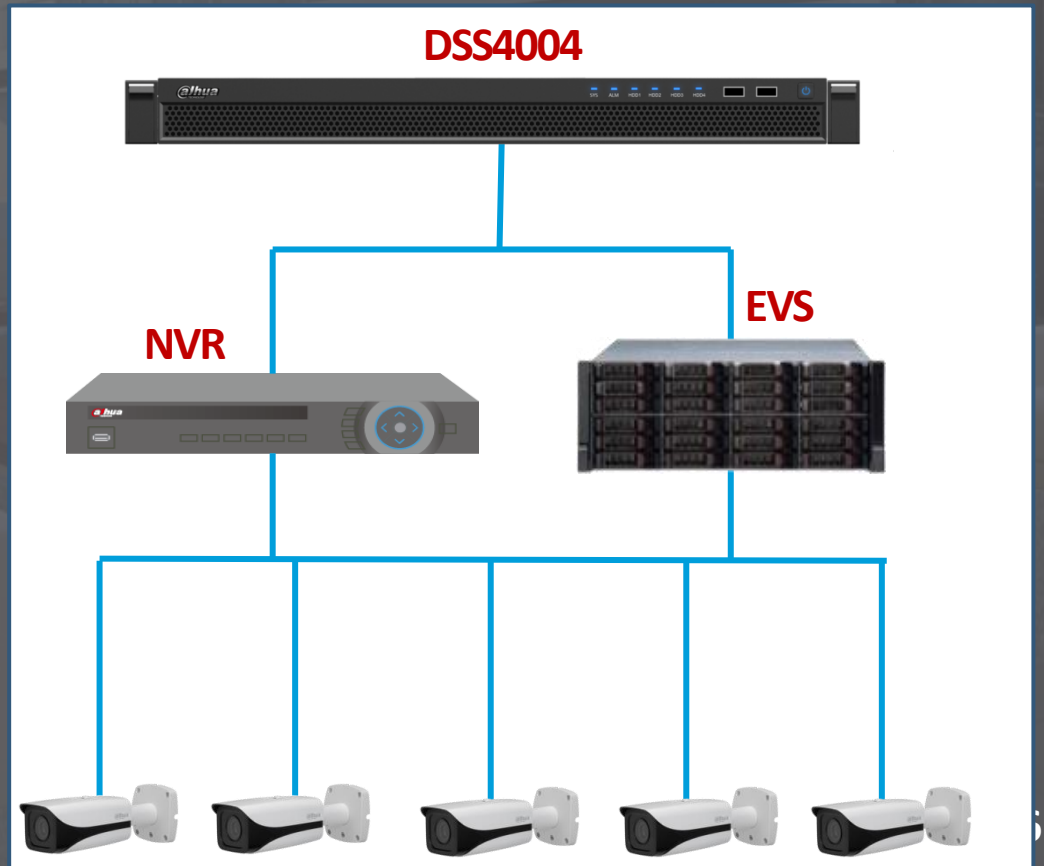
Storage Solution

1. DSS Local Storage): Storage the video or picture in DSS local HDD.
2. ISCSI extension: Connect to ESS or EVS storage by iSCSI protocol, use IPSAN to release storage extension

Time Plan Storage

Alarm Storage





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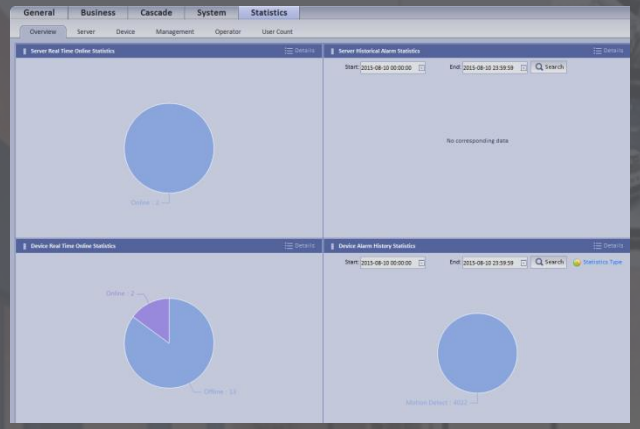
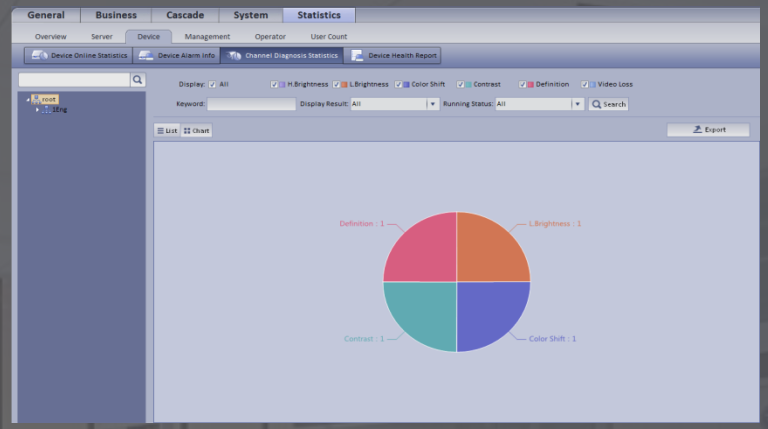
Statistics



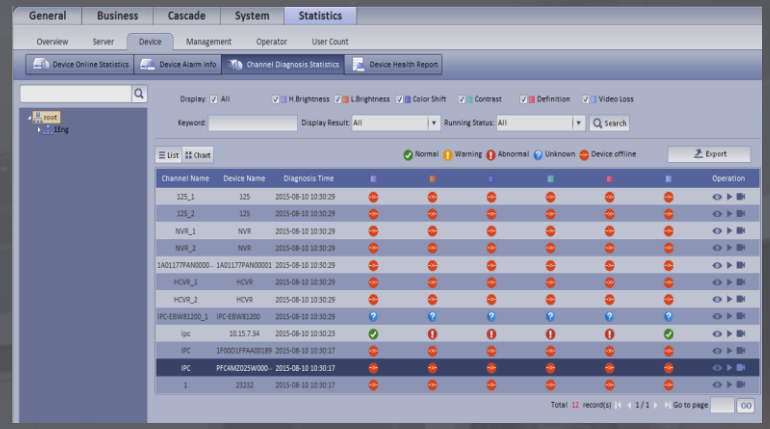
Servers information

- online status
- alarm status(high temperature, server status change)



Device information

- online status
- alarm status(all device and channel alarm)



video quality diagnosis

- High Brightness\Low Brightness\ Colorshift\Contrast\Definition\Video Loss

BRIEF

- Manager can find server or device abnormal and solve it on time.

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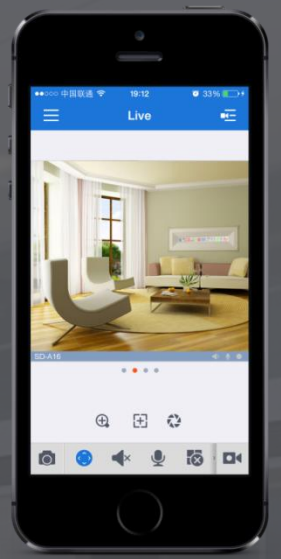
Preview



- Real Time Monitor, Manual Record, manual Snapshot
- If device type is PTZ, then you can click on PTZ tab in the interface to set PTZ
- You can set tour task to achieve tour over several windows.
- Add channel to Favorite which you will monitor usually, so it can be open more easier when you need.

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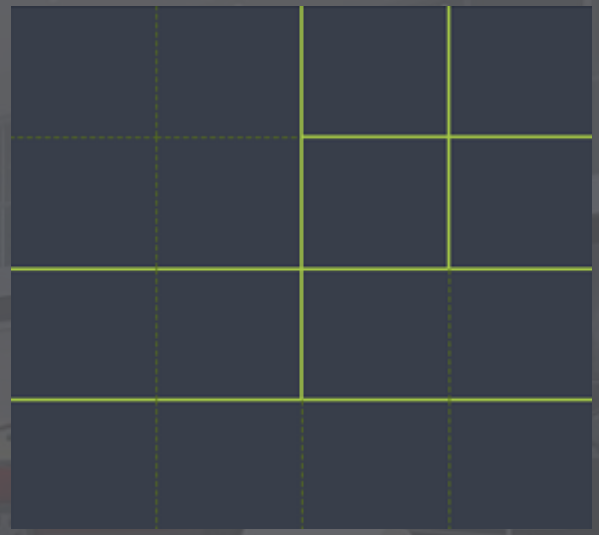
Customized Layout



- Customize any layouts you want, support up to 64 windows.
- show videos with different aspect ratios: 4:3, 16:9, panorama.

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Fisheye

- Several "normal" flat images are obtained for display on the client screen
- Several View modes can be choose.
- Support fisheye calibration.

Note

*Play back does not support fisheye calibration

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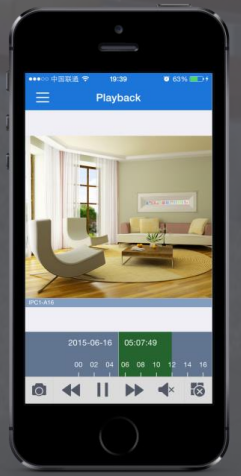
Playback

- You can search different channel, time, and types of record, and play the record.
- Support sync play, you can play records from different channels at the same time. Support up to 16 channels.
- Drag to any time you want to play through timeline pane. And support zoom in and zoom out.
- Support Lock and Mark records.



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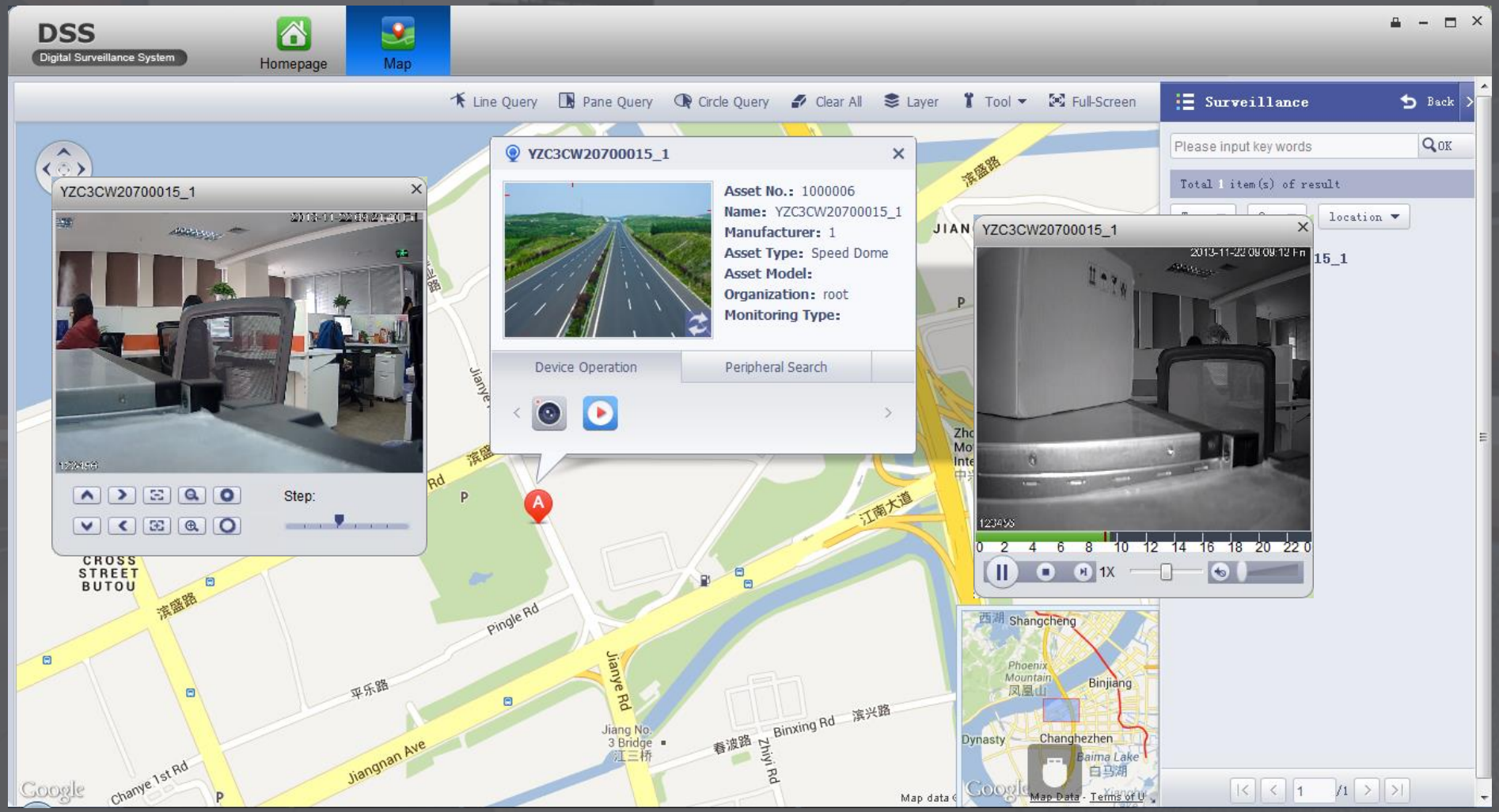
Emap

- Supports video channel and alarm channel display on map
- Support video monitor and playback.
- Support Google Map , Raster Map
- Support alarm flash



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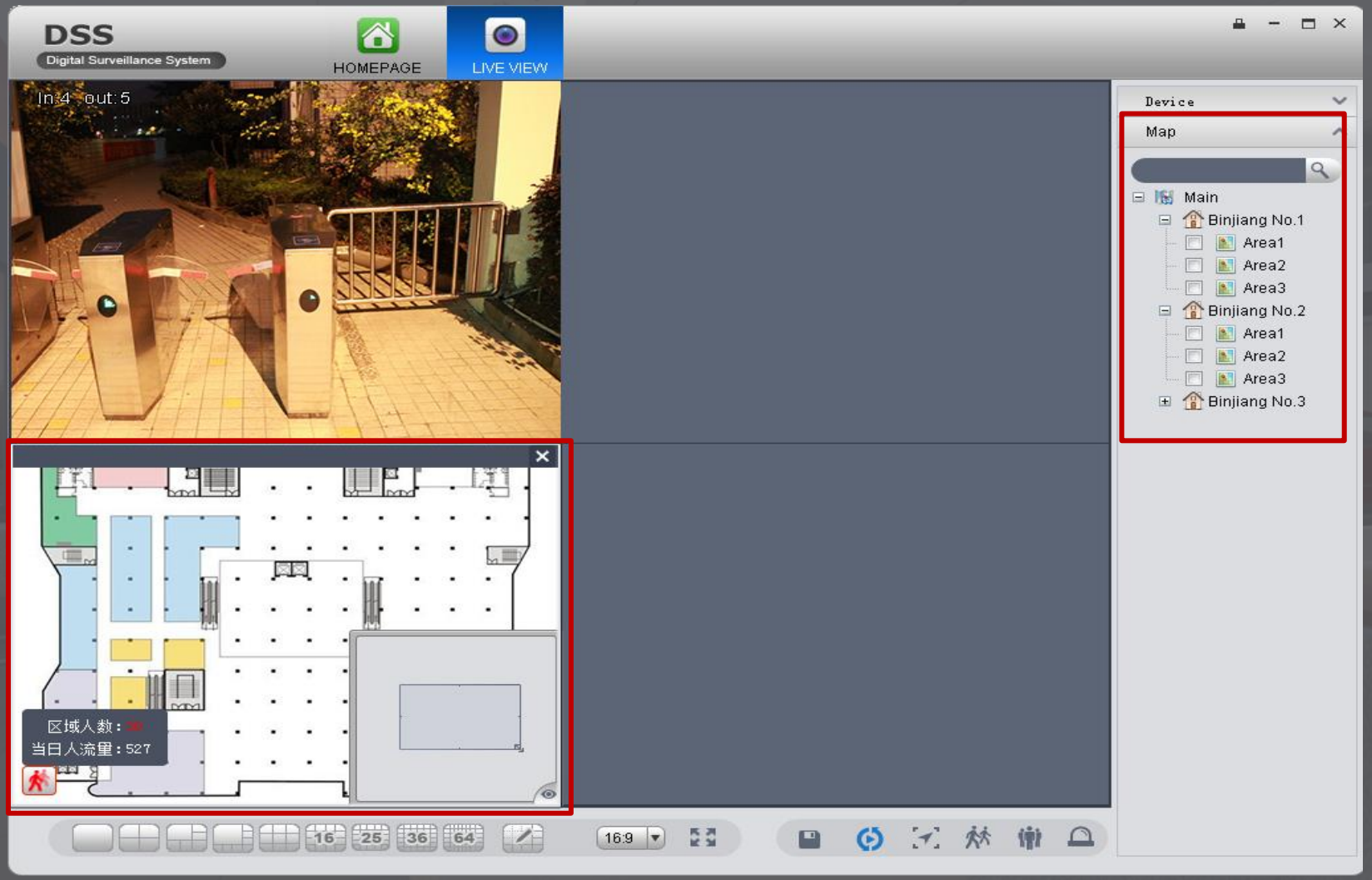
E-MAP and Preview



- After add map resources on web, the client will show map list simultaneously in preview interface.
- Can drag the map to the preview window, can close manually.
- Can double click or drag the video on the map to the corresponding window and preview

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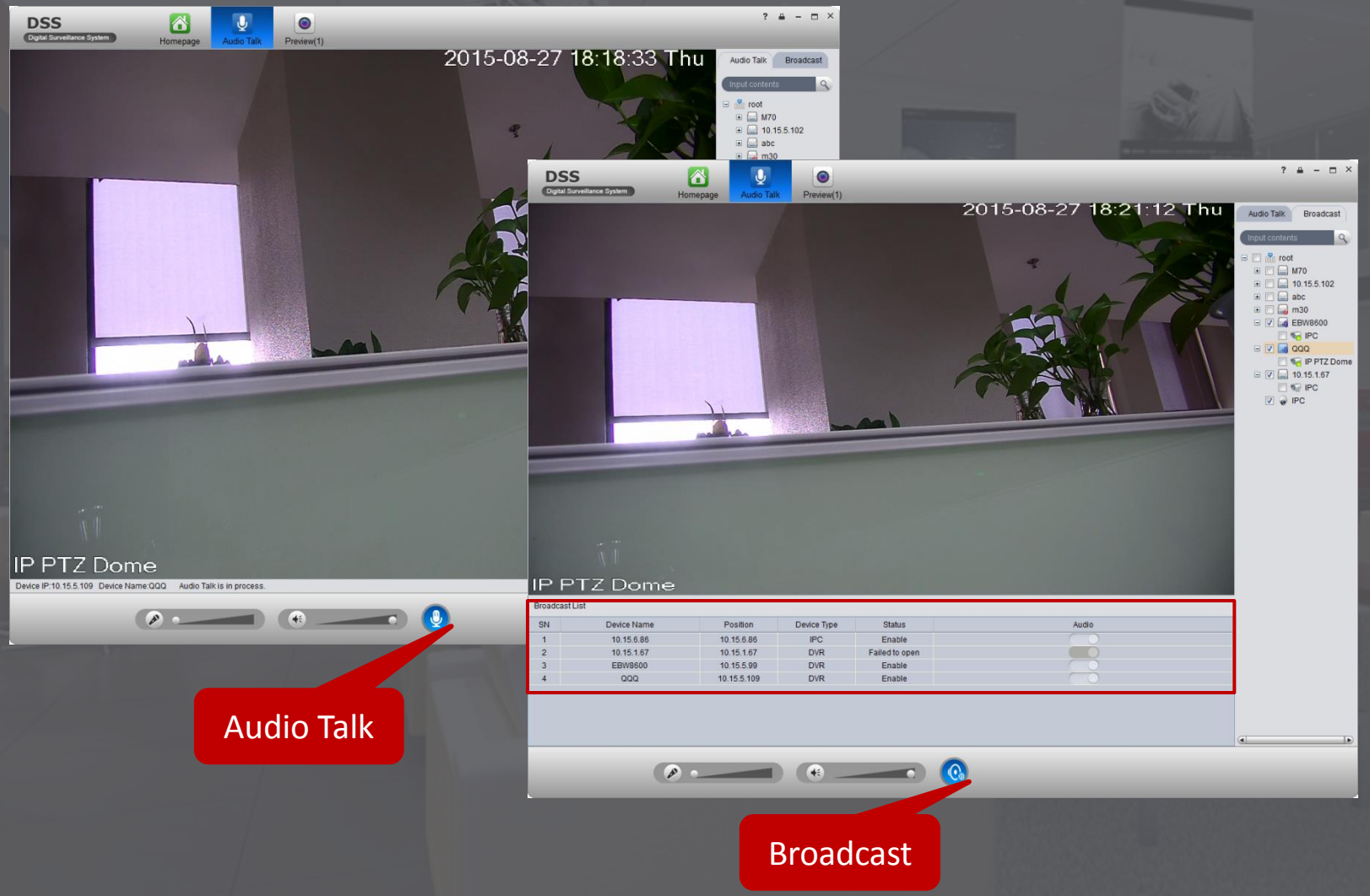
Audio Talk & Broadcast



- Audio talk allows Client to talk to a single front-end device.
- Broadcast allows the Client to broadcast with multiple front-end devices.

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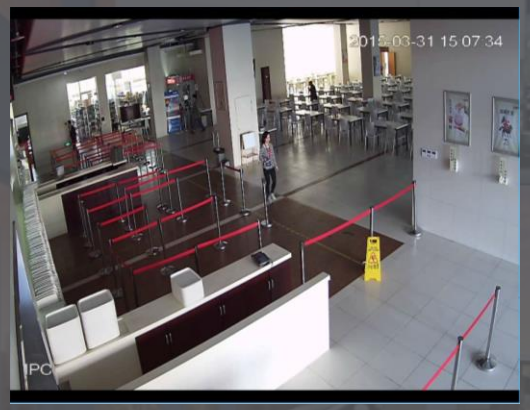
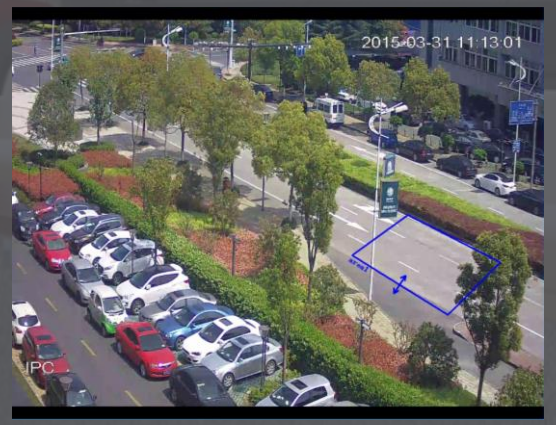
Tripwire & Intrusion

Tripwire



It is to detect if there is any object crossing the warning line, it can support different direction selection, such as A->B, B->A and bidirectional, and it can activate record , snapshot and alarm according to the judgment result.

Intrusion



It is to detect if there is any object entering or leaving the area, it will trigger rule when crossing the area perimeter, support enter, leave and enter&leave three direction selection, it can activate record, snapshot and alarm according to the judgment result.

Note

* All intelligent functions on DSS need to connect Smart IPC or IVS server, Smart IPC just send the video analysis result to DSS as an alarm

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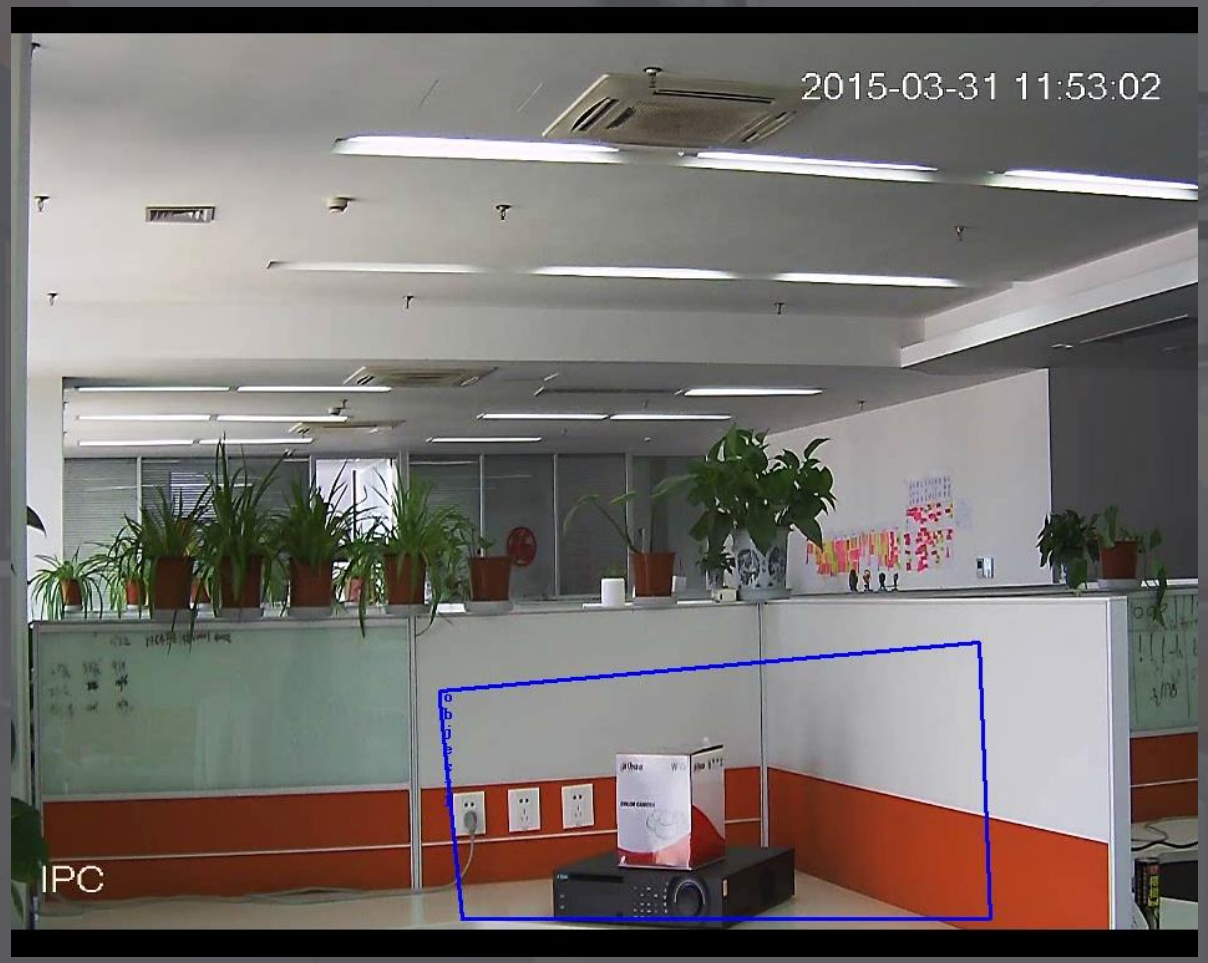
Object Abandoned / Missing



Object abandoned means that it is to detect if there is any object abandoned in the designated detection area and surpass the set time. It will activate record, snapshot and alarm according to the judgment result.

Object missing means that it is to detect if there is any object moved in the designated area and surpass the set time. It will activate record, snapshot and alarm according to the judgment result.

Access Control Solution

- Bind access control with video, then you can open video in access control interface in client.
- Alarm management, support several alarm type.
- Remote Control open and close the door. And show the alarm info.

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Alarm Host

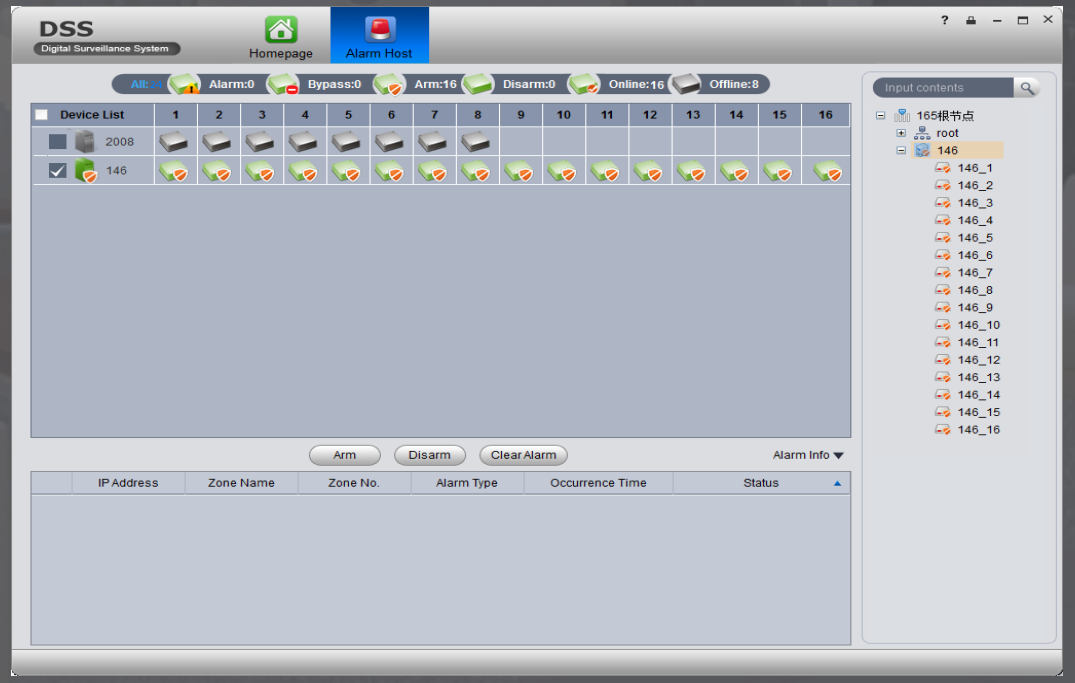
Wireless PIR

Wireless Door/Window Contact

Camera

DSS

Arm/Disarm Alarm Monitor



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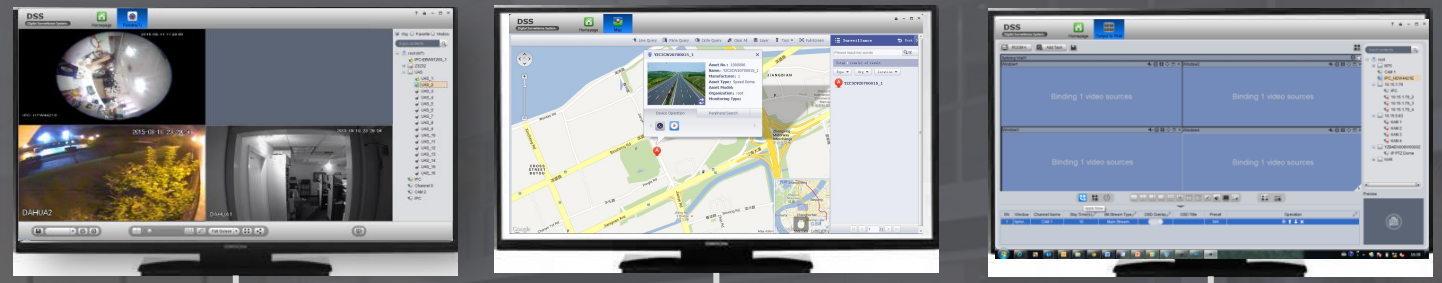
TV WALL（Small）

Connect multiple monitors to PC, login DSS Client, pull the different modules to different screen, and then through NKB1000 to control Preview and TV wall



HDMI(VGA)

DSS

Net

DSS Client

USB

NKB1000

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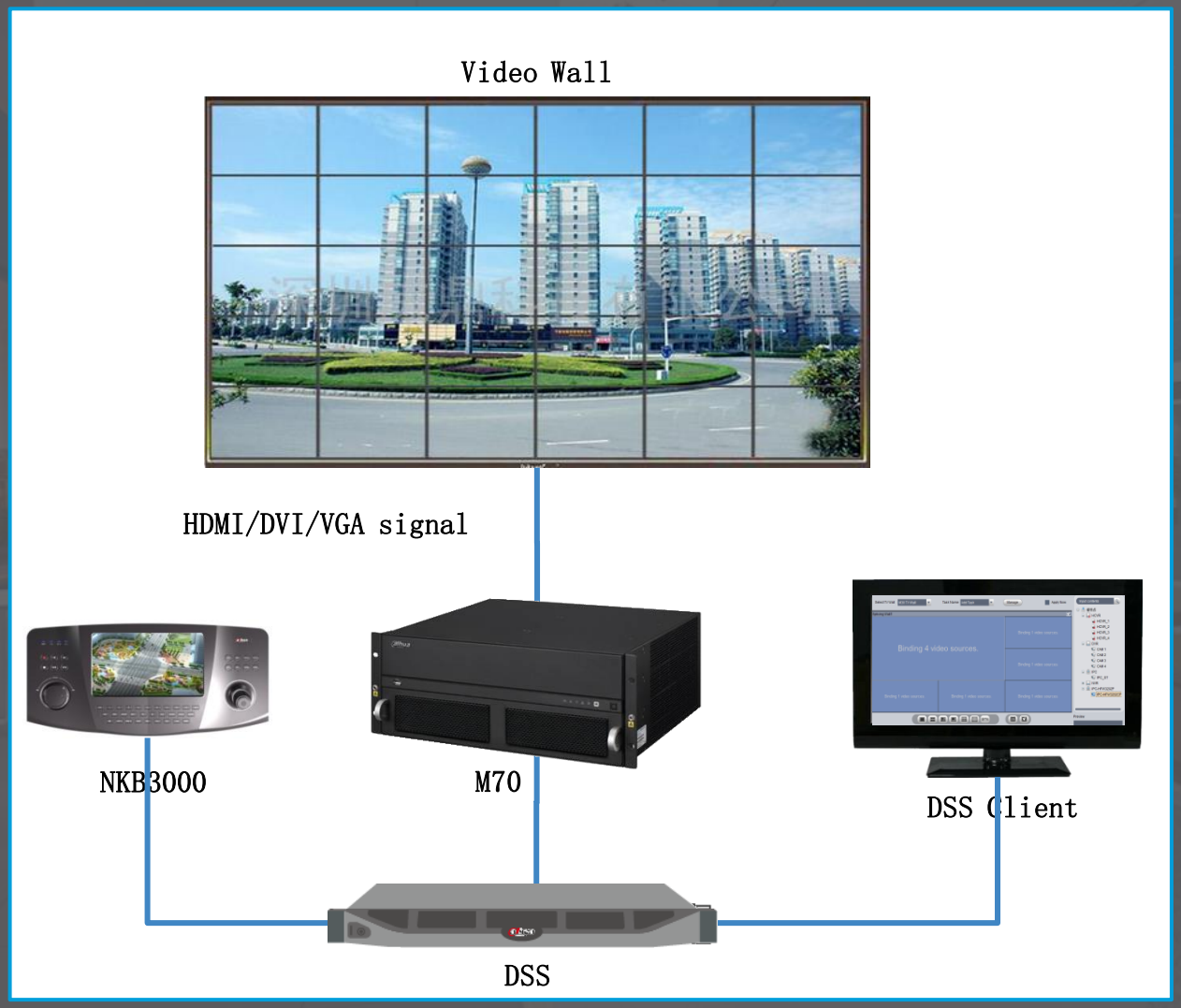
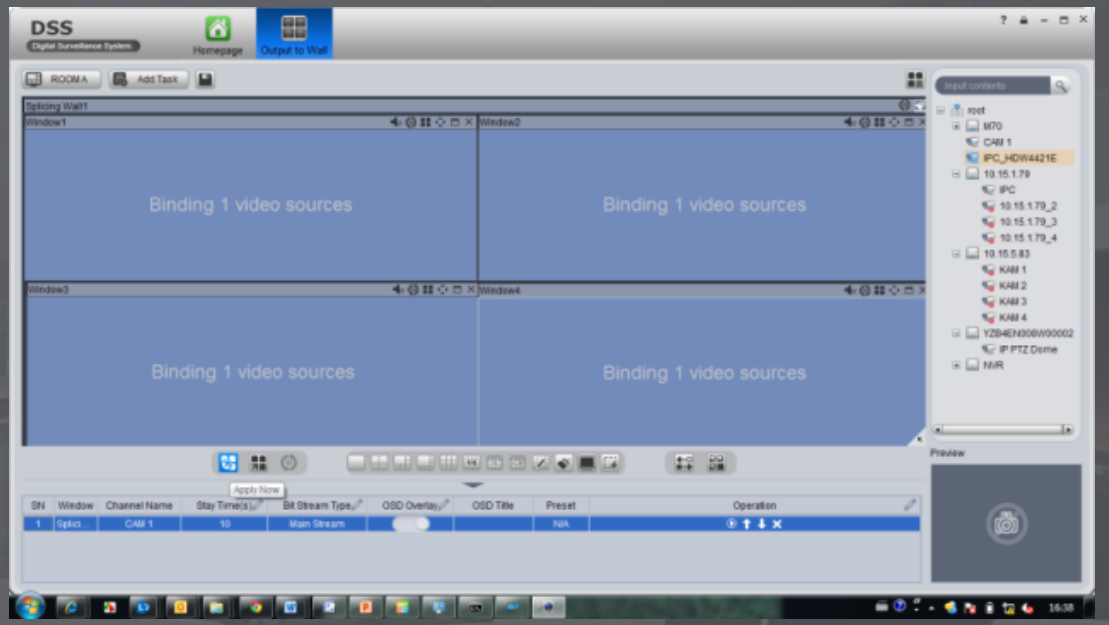
TV WALL（Middle-Large）





Note

*Does not support playback on the TV WALL

V6.01.000

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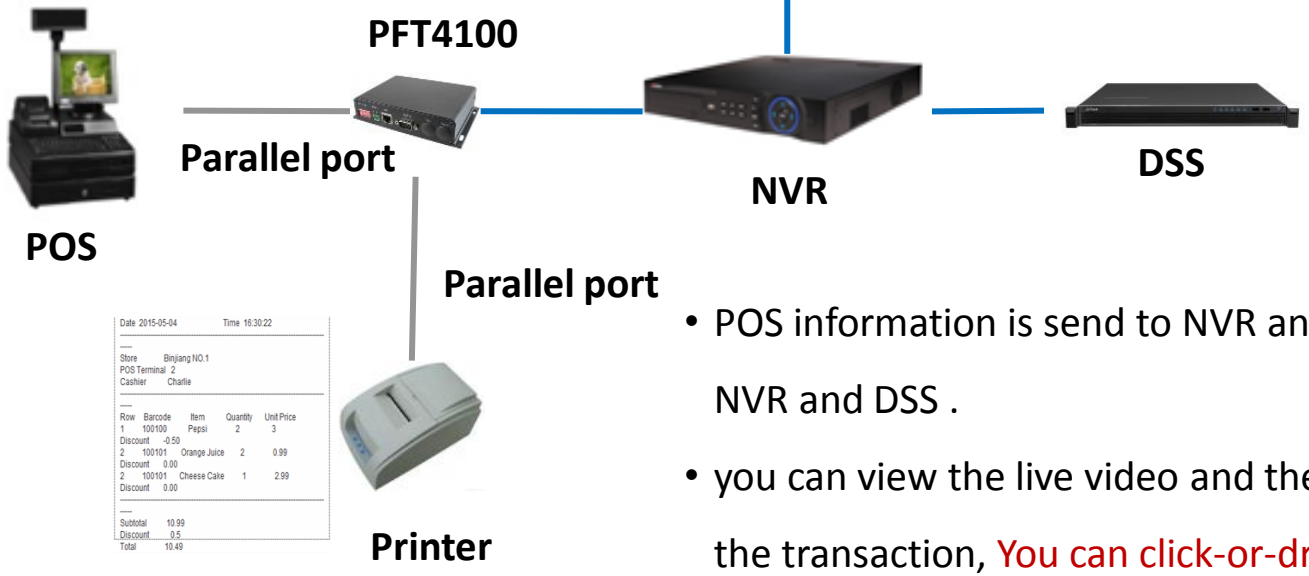
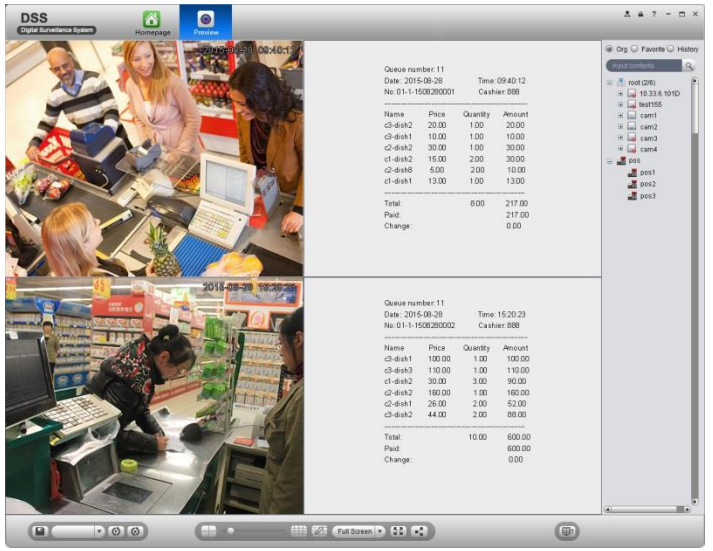
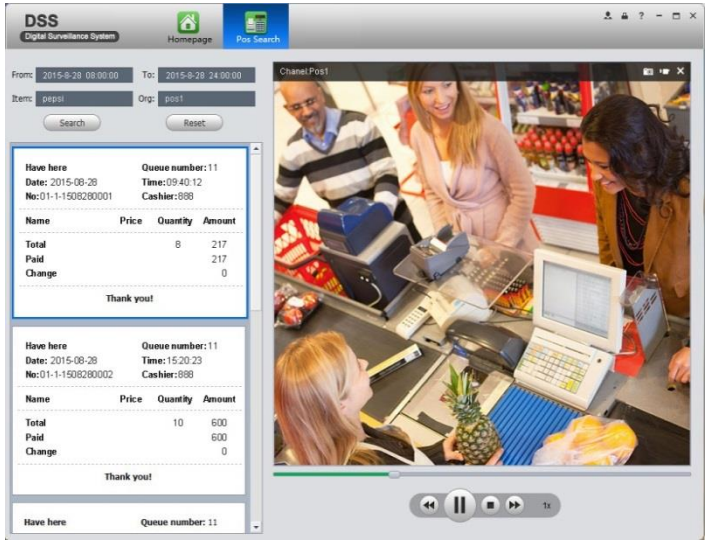
V6.01.000

POS

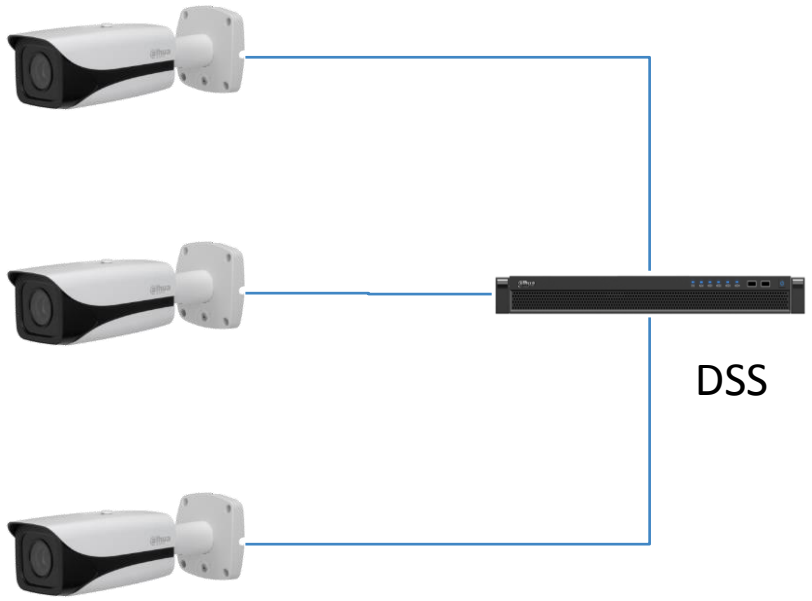


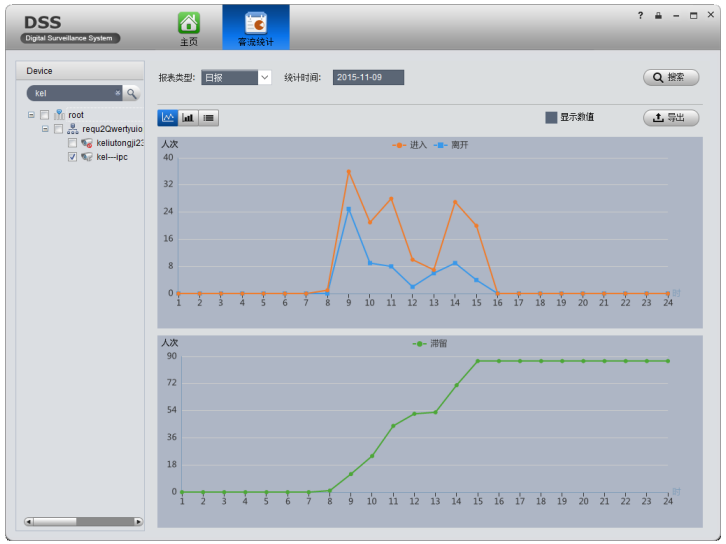


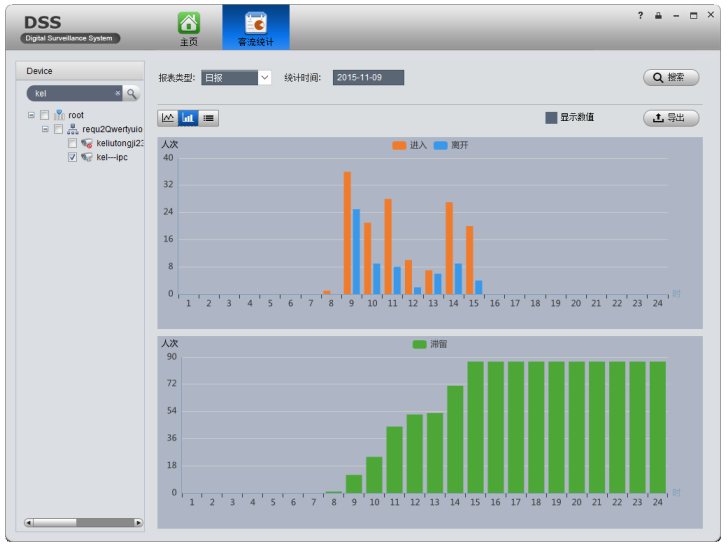


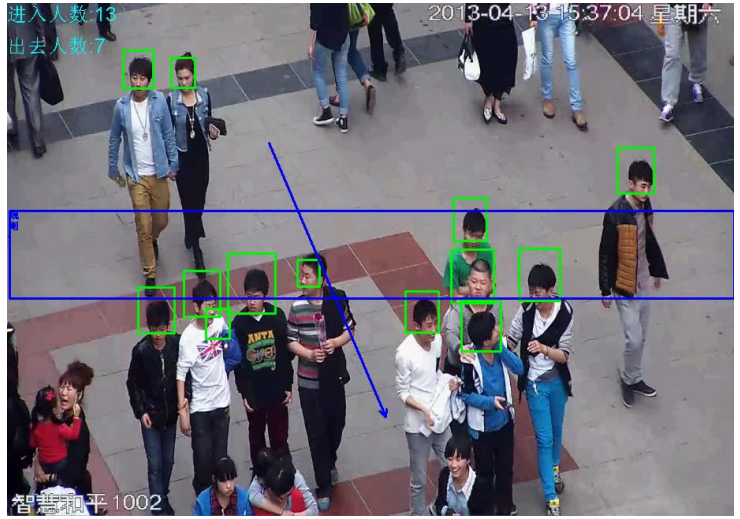
- POS information is send to NVR and DSS and stored in NVR and DSS .
- you can view the live video and the POS information of the transaction, You can click-or-drag the POS terminal in live view to window if needed.
- You can search the POS information and play the related record files.

People Counting



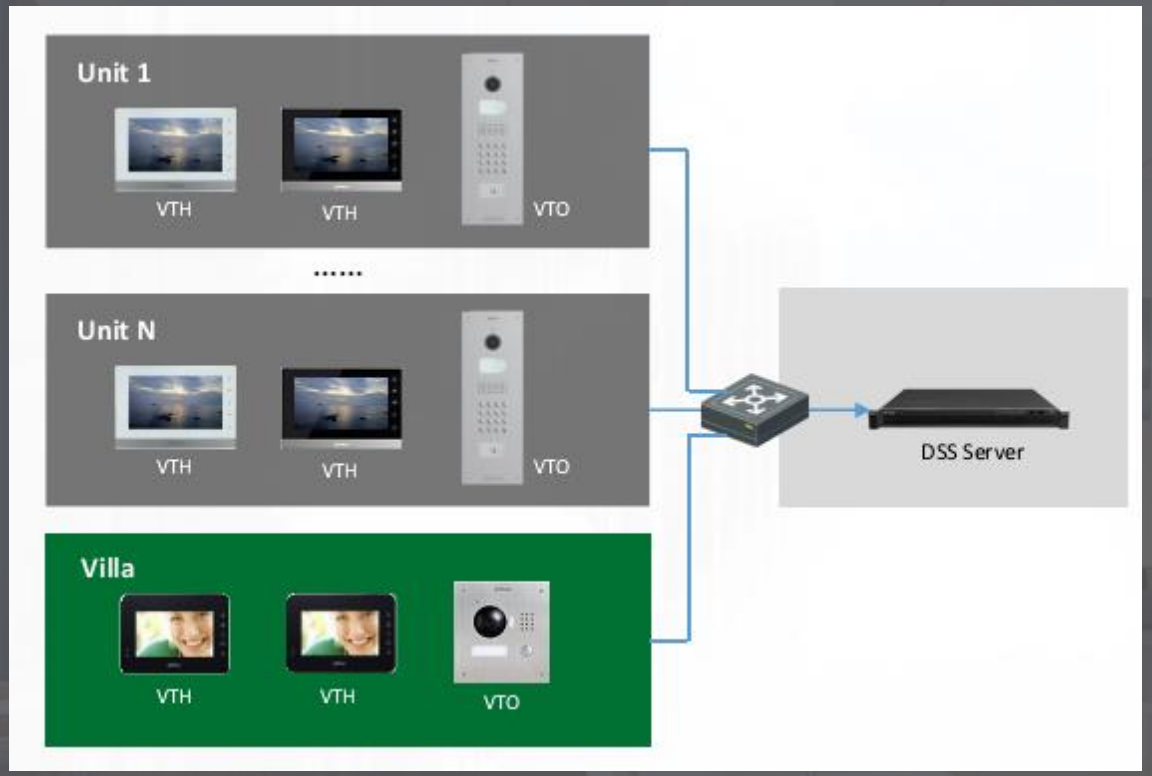


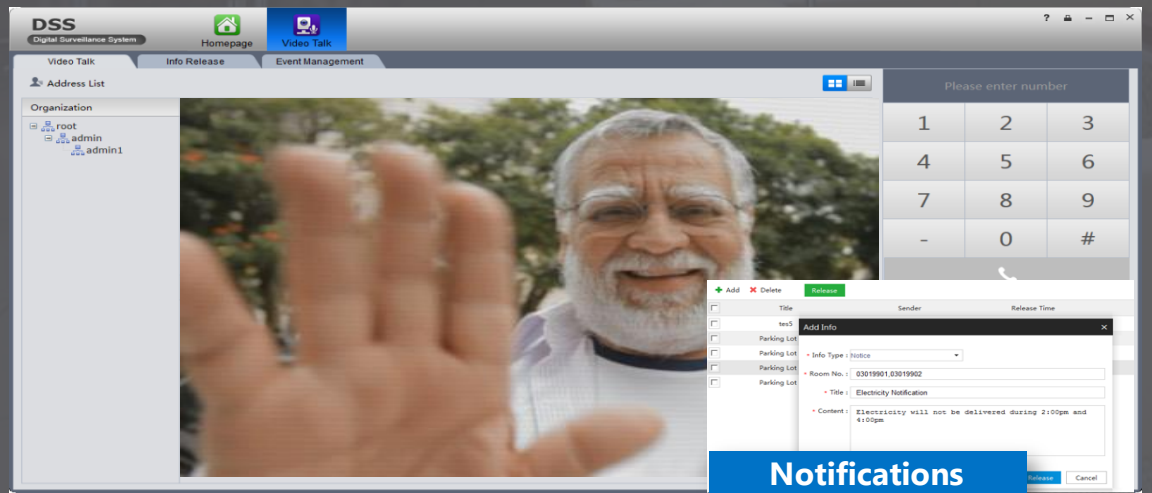




It is to make statistics of enter and leave people in the specific area of the image, and finally it comes out the statistics data, providing kinds of data reports such as daily report, monthly report and annual report. There are two ways to present: **line chart and histogram,** providing data exporting function.

Video Intercom Integration





Video Intercom

- Video call between control center and outdoor station
- Audio call between control center and indoor monitor
- Control the access of outdoor station remotely

Push Notification

- Push notification such as advertisements, daily news and delivery notice from control center to indoor monitors

Alarm Management

- Alerts along with link video will be sent to the control center for emergency handling once an alarm is triggered by any sensor connected to indoor monitors

*SIP-based communication, the SIP server is integrated in the DSS. Don't support WLAN Mapping

V6.01.000

Catalog

1 Product Series

2 Functions Introduction

3 ADD-ON Business

4 DSS Deployment Characters

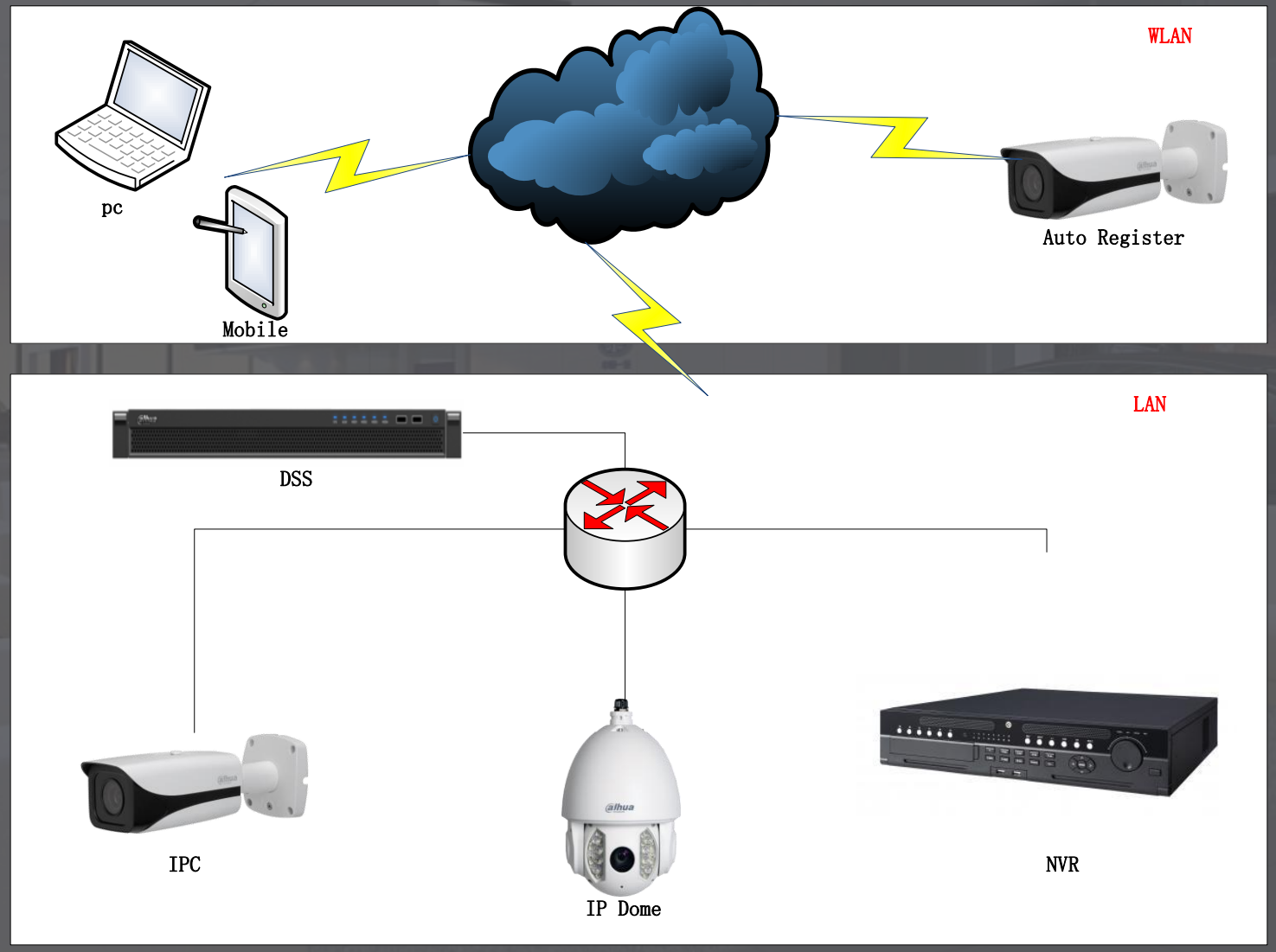
5 Industry Application

6 Success Cases

V6.01.000

WAN Mapping

If you want access the DSS, and hasn't Fixed WLAN IP, you can use router to do WAN Mapping, then you can access the DSS from public net.



- **Port Mapping**

Can control the number of internal and external network port mapping, and the internal and external network port can be inconsistent

- **DMZ Mapping**

Equivalent to all the ports is the same map directly to the network

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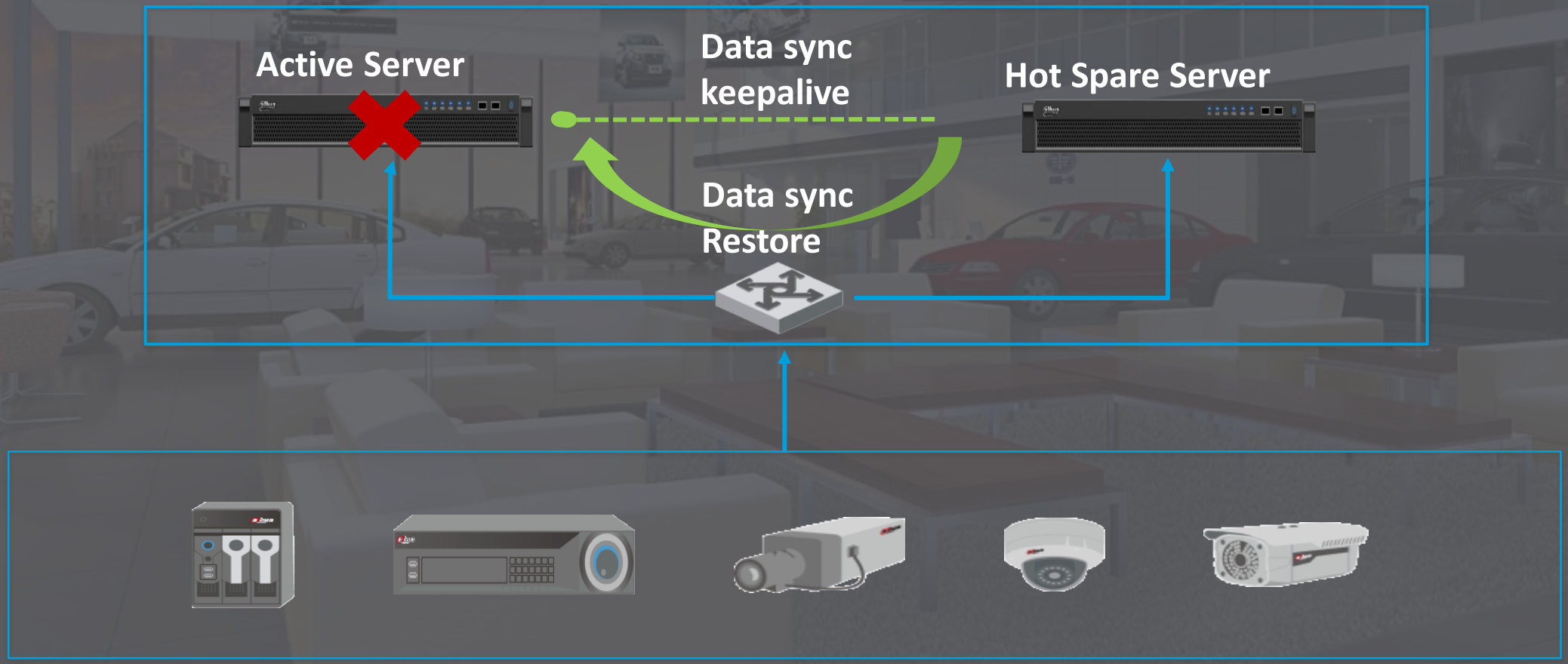
Hot Spare

Hot Spare mode can improve the stability of system, when the active server fail or disconnect, the Hot Spare server change to active mode automatically and the system keep on work



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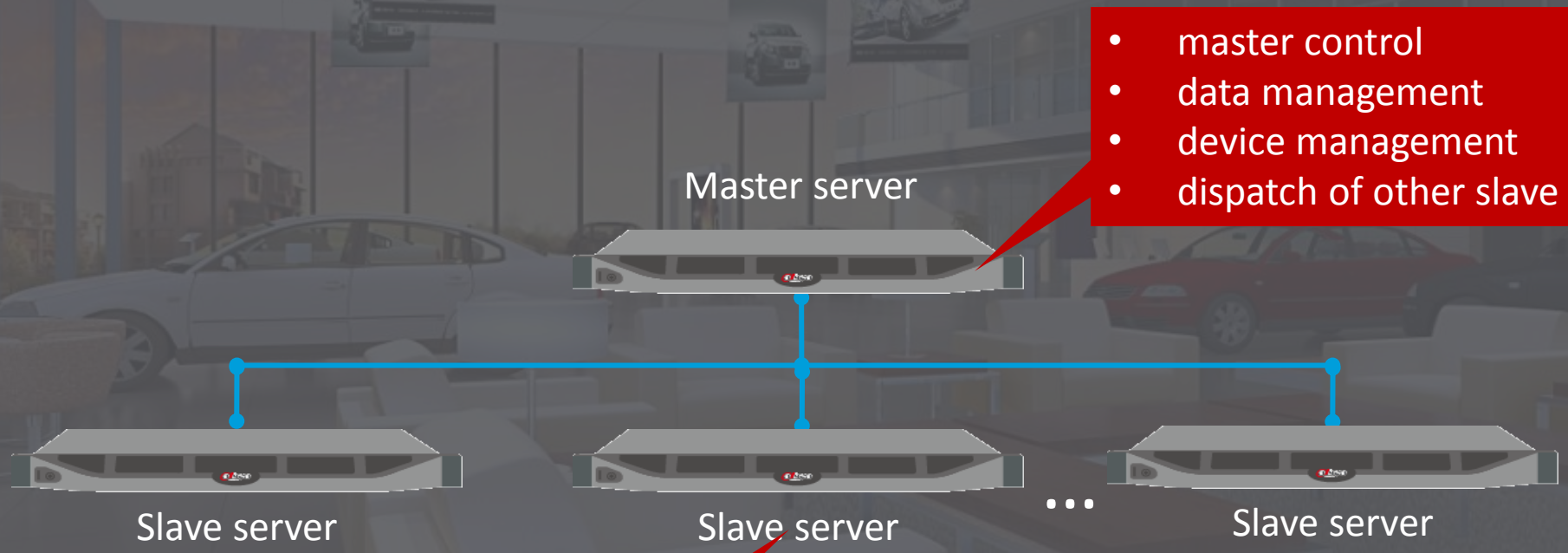
Distribution System

Via distribution, fulfill requirement of larger surveillance system. extend the transfer, storage （DSS7016D） and device management capacity, max support **20 unit**.



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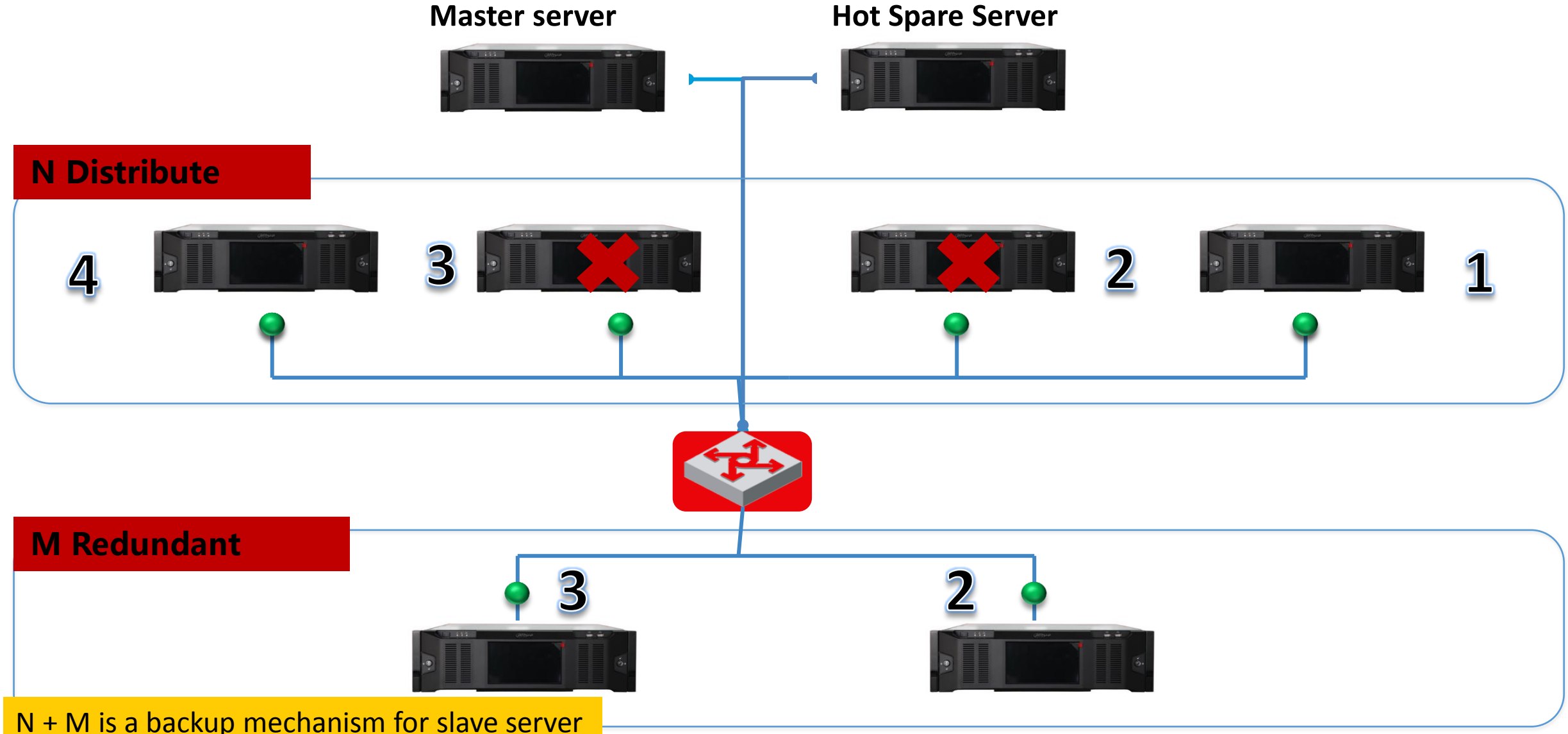
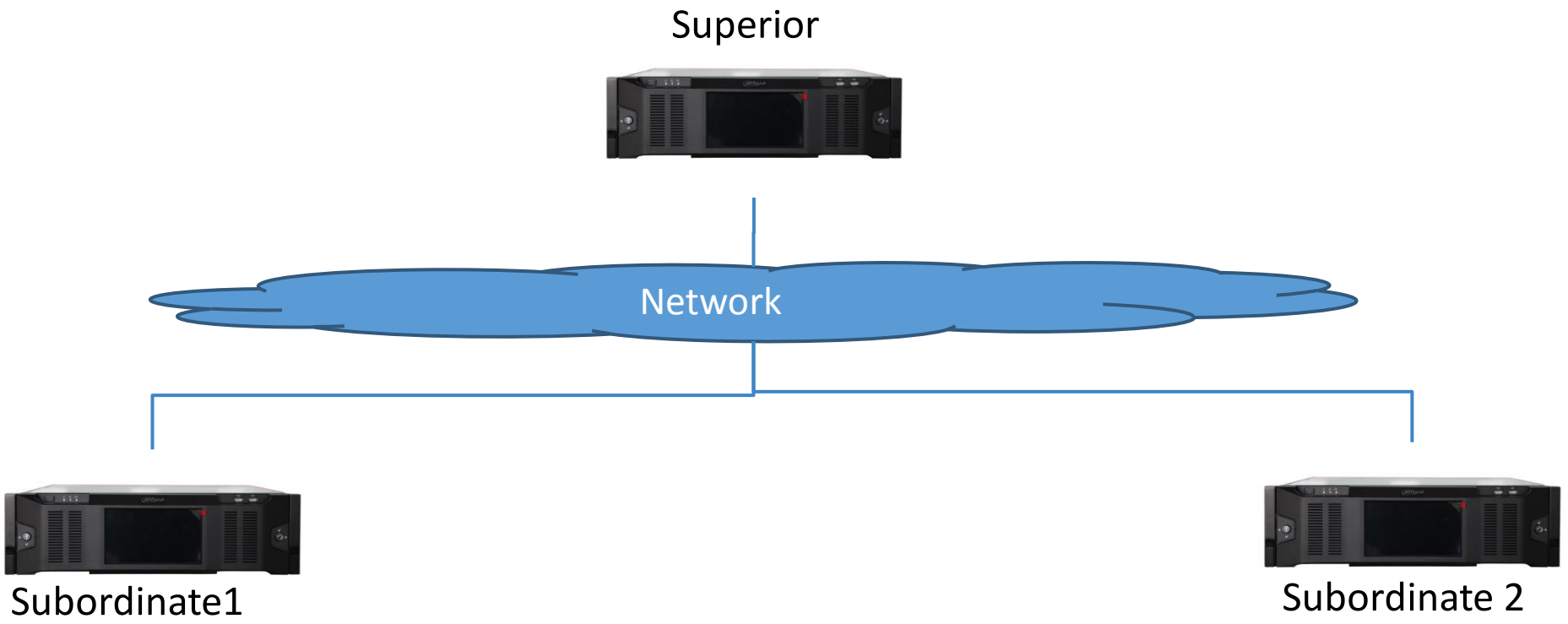
N+M



N + M is a backup mechanism for slave server

CASCADE

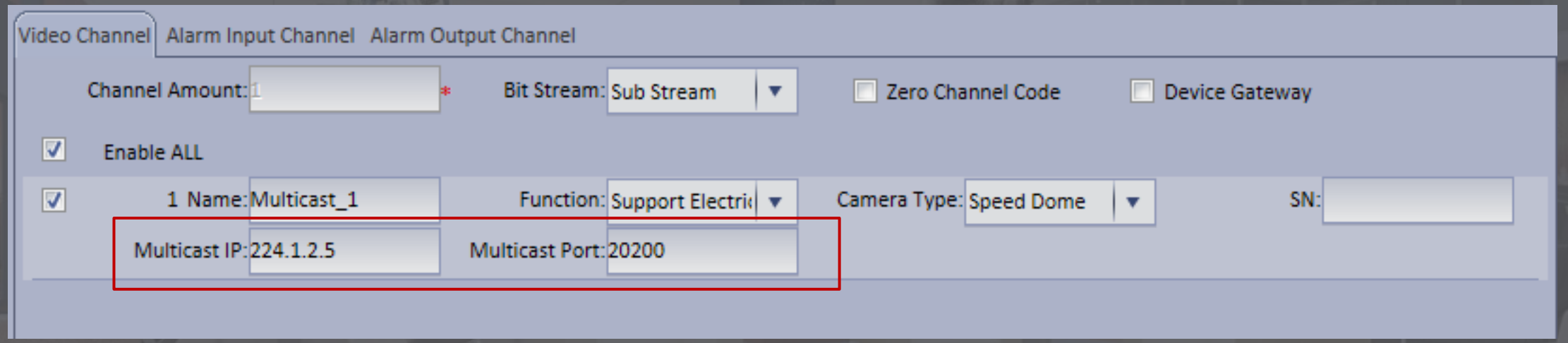
- The superior domain is equivalent to a client of subordinate domain, login on subordinate domain get device list and authority information
- Max support **5-level** cascade



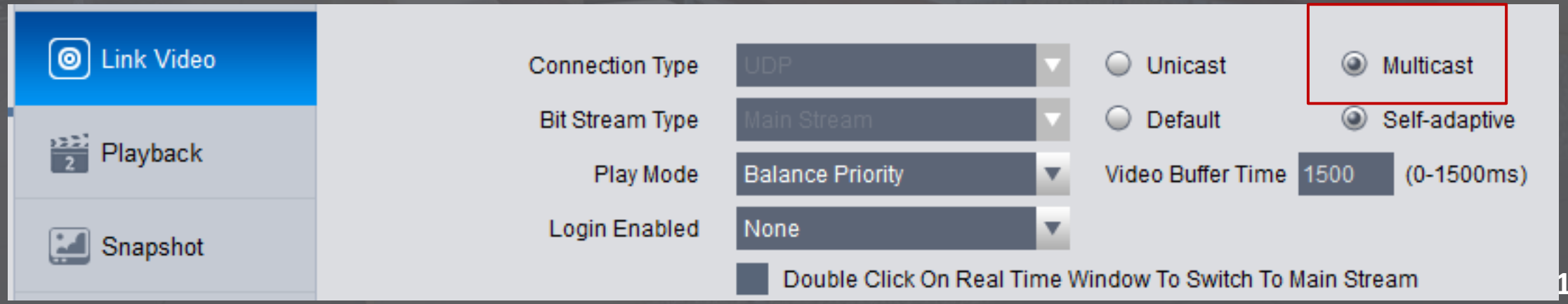
Multicast

1. The equipment must be support multicast

2. when add device which is support multicast on DSS web, must fill in the multicast IP and port



3. Login DSS Client, enter Local, select Multicast



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目录

1 Product Series

2 Functions Introduction

3 ADD-ON Business

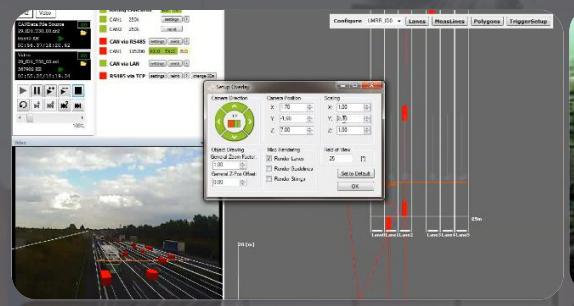
4 DSS Deployment Characters

5 Industry Application

6 Success Cases

V6.01.000

INTELLIGENT TRAFFIC



Radar Speed Enforcement

Detect the overspeed, vehicle classfication and lane No.

Red light enforcement

Detect the red light runner with video and 3D radar tracking.

ANPR

Record the vehicle plate in multiple lanes with video detection, take a real-time picture of car even drive in 180km/h

V6.01.000

INTELLIGENT TRAFFIC

High definition monitoring

Deliver All kinds of high definition cameras inclu ding bullets and PTZ to adapt to the needs of var ious scenes

Monitor black list with ANPR

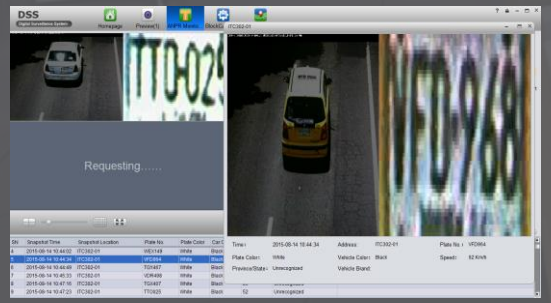
Provide black list alarm in real time and monitor the track of black vehicle in e-map.

Violation management and confirm

Record and store the violated data including time, place, car plate, speed, violation type. Recheck b efore uploading the data to official violation DB b y modify the data.

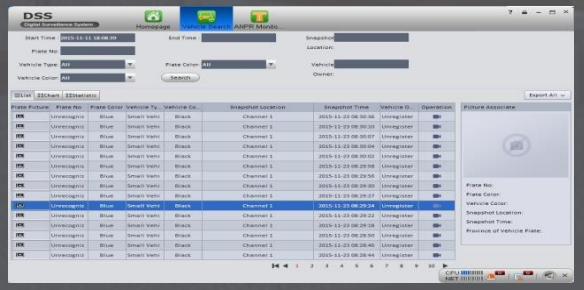
Abundant traffic data

Record regular traffic flow where vehicle driving by t he monitor camera. Statistic for all different kinds of violation.



Black List Window

E-map Window



Violation window

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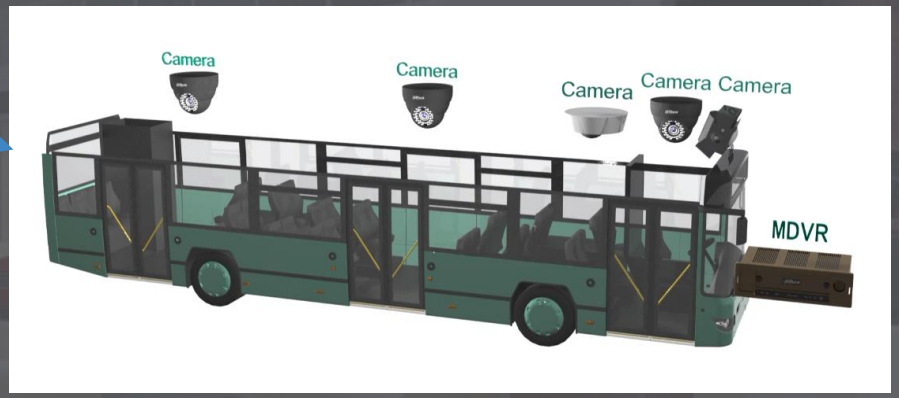
MOBILE VEHICLE

Dahua Mobile surveillance solution

Includes from the front-end HD cameras to back-end management system. It meet the needs of the vehicle monitoring and operation at multiple scenes.



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MOBILE VEHICLE

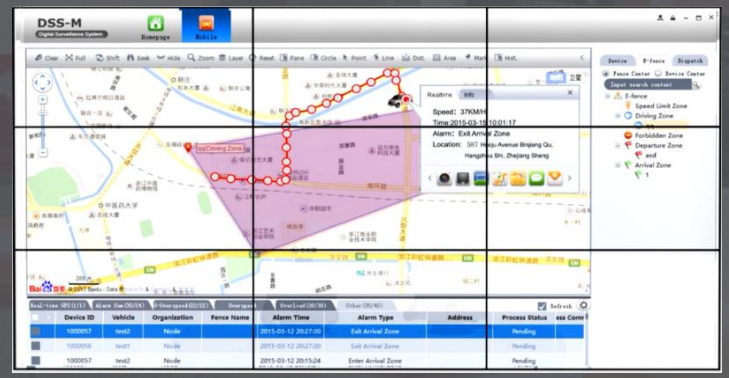
Deal with Emergency

The inside G-sensor help to detect the accident in the first time and se nding the alarm and video back to command center for dealing

Prevent Driving Misbehavior

Detect vehicle overspeed and send th e GPS information back to command center.

two-way-talk function help to easily m aking a communication between drive r and operator.

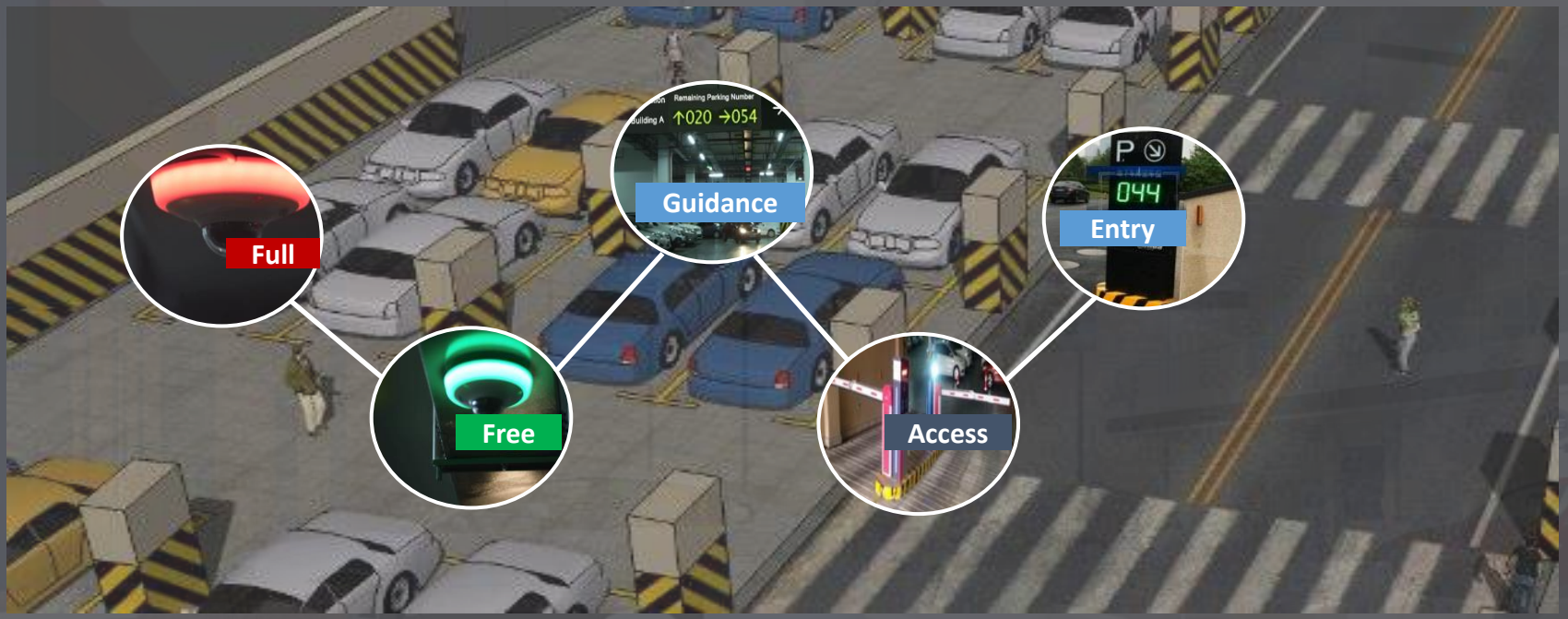


Regulate vehicle movement

Electronic fence restricted the vehicle in certain route , to help manage the o peration of the vehicle.

V6.01.000

PARKING LOT



Parking Guidance

Easy to Find a Free Space

With the indicator of Dahua LED display and d etection camera, car owners can locate a free space in just a few minutes. In the meantime, video signals transmitted from the detection c amera are of great help for the guarders to ch eck the safety of parking lot.

Parking Entry

Promote the Efficiency

With Dahua advanced LRP algorithm integrate d in the ANPR camera, the access can be contr olled automatically, which allows the customer s to drive directly into the parking lot without stopping cars to get a ticket.

V6.01.000

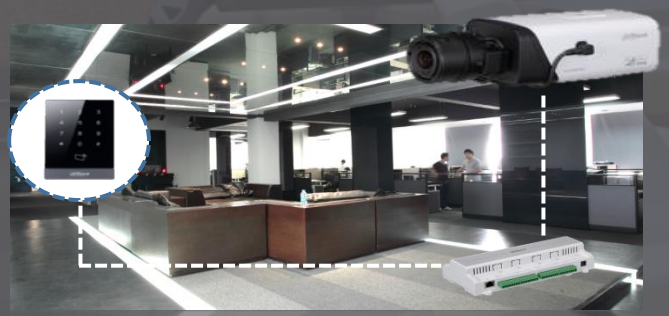
INTELLIGENG BUILDING

Community Surveillance

Need panoramic and detailed view of the real-time situation in the campus of residential area or office building.

Residential Video Intercom

Need advanced notification and video verification when a visitor comes.



Building Access Control

Need visitor management with high security level and visualized confirmation.

Control Room

Obtain effective evidences and references for incidents handling by presenting real-time videos and alerts from all the needed resources onto the video wall.

V6.01.000

INTELLIGENG BUILDING

High definition monitoring

Deliver All kinds of high definition cameras inclu ding bullets, PTZ domes and fisheye to adapt to t he needs of various scenes

Intelligent video analysis

Tripwire, Intrusion, people counting, heat map am ong other smart functions are embedded in the ca meras to provide a quick reminder of emergencies and even business intelligence

Alarm system with high reliability

Provide rich interoperability by integrate alarm events with video surveillance and access mana gement, results in better situation awareness an d decision-making

Video Intercom

Provide visitor notification and alarm alerts thro ugh IP-based video intercom system. Messages can be received from Intercom center as well.

Access control with high security level

Provide various types of authentication methods including fingerprint, p assword and MIFARE card, and link the system with video surveillance

Access Control

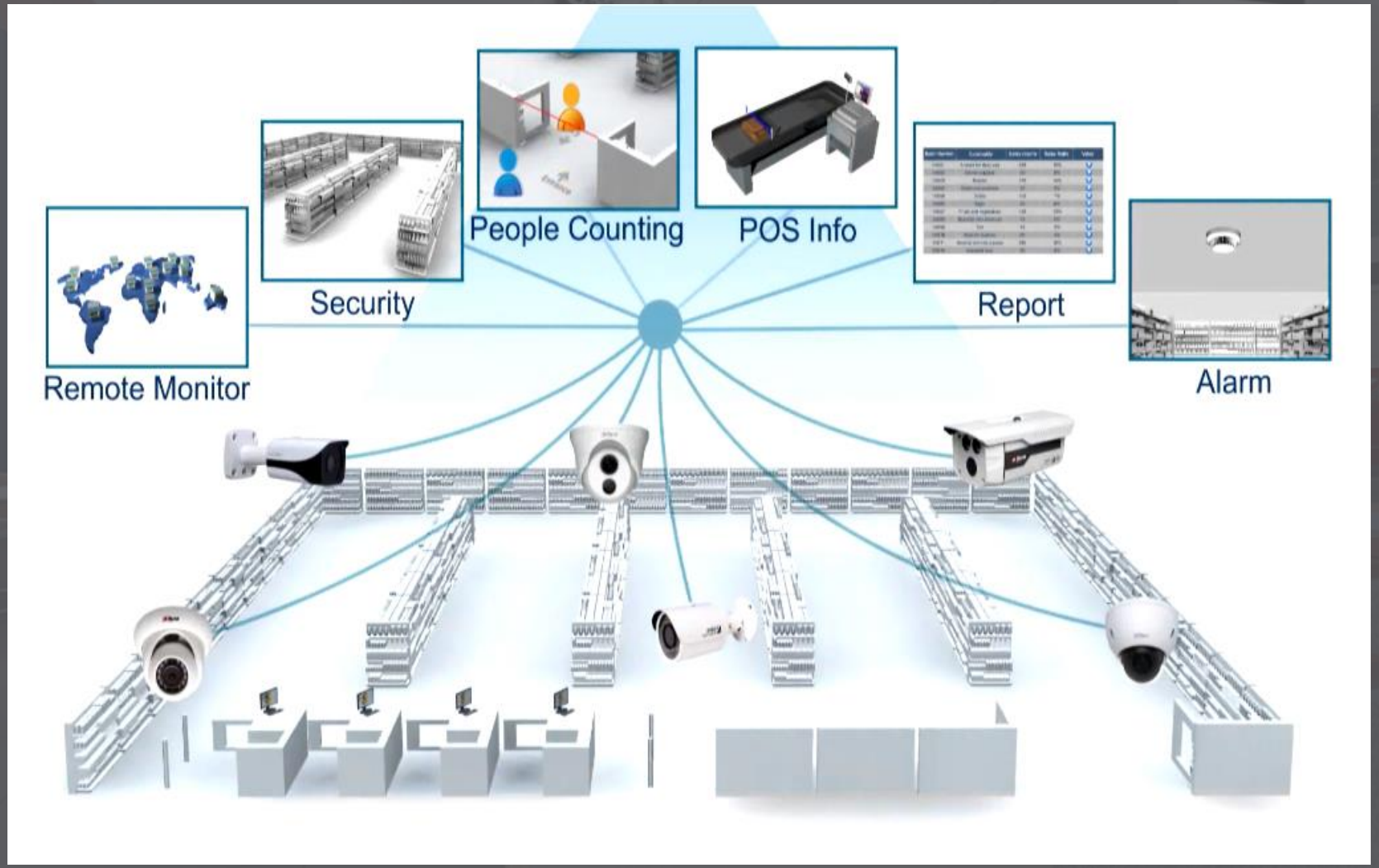
Alarm

Surveillance

Video Intercom

V6.01.000

RETAIL



Provide better security

Through monitoring the POS and linkage of videos to know short changed

Make better Management

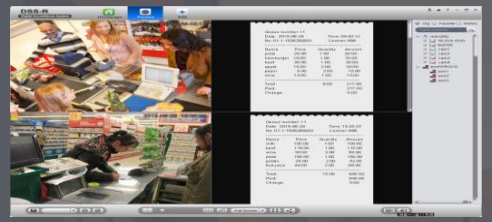
Through People counting to know the customer flow situation

Greater business value

Through sales report to know the Commodity sales situation

RETAIL

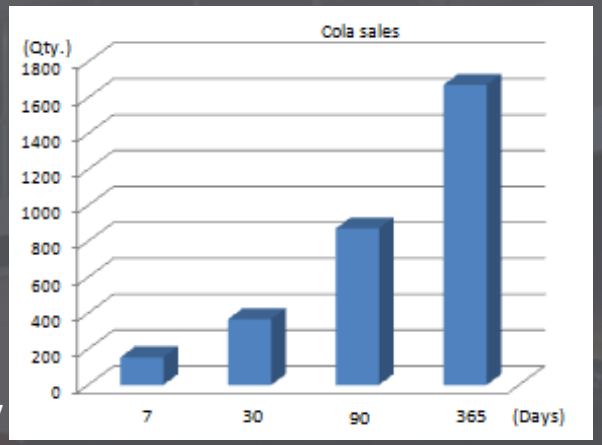
POS Real-time display and Search



- Real-time display of POS transaction information.
- Playback video relevant with the search result you have chosen.

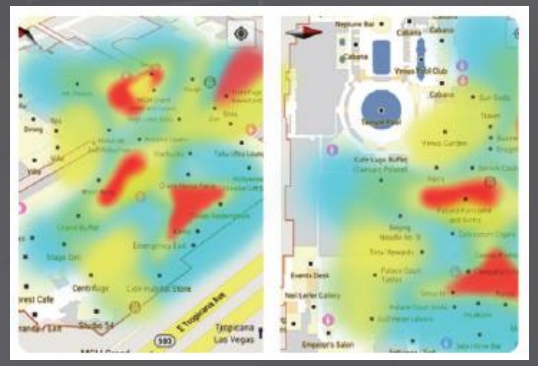
Sales Report

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



Retail Integration

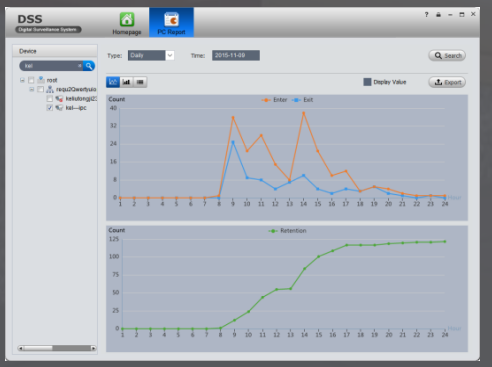
Hot map



- Output customer activity density to show which area attracts most customers

People counting

- Real-time display of customer flow quantity.
- Timely open more counters When there are too many customers.



V6.01.000

Catalog

1	Product Series
2	Functions Introduction
3	ADD-ON Business
4	DSS Deployment Characters
5	Industry Application
6	Success Cases

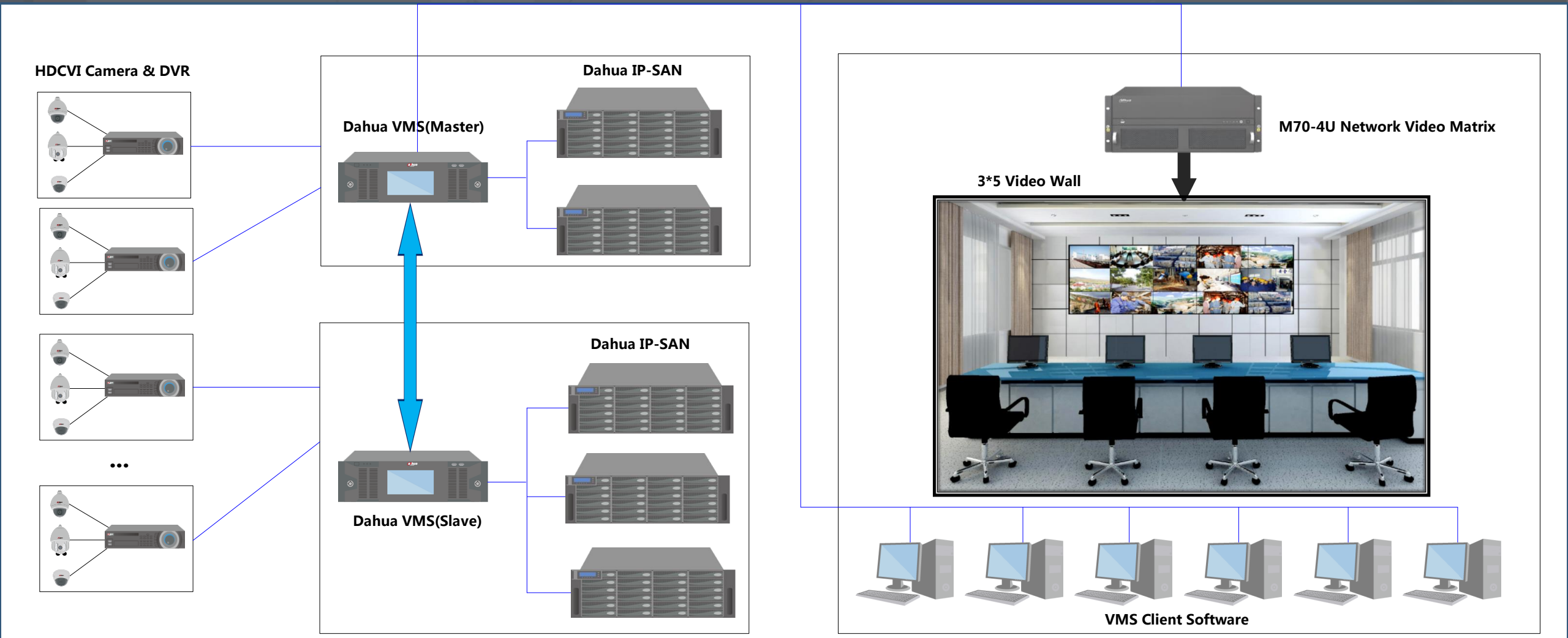
V6.01.000

Successful Case | Lulu Hypermarket Surveillance Project

Lulu Hypermarket is a hypermarket chain and retail venture started by Lulu Group International in 2000. It has **over 30,000 employees** of various nationalities.

It is **one of the largest retail chains in Asia** and is the **biggest in Middle East** with 115 outlets in the Gulf Cooperation Council (GCC) countries and one in Kochi, Kerala, India. Research firm Deloitte, recently placed it amongst the world's 50 fastest growing retailers.

Successful Case | Lulu Hypermarket Surveillance Project



Successful Case | Mexico City Plaza Inn Surveillance

960H Camera & DVR

960H Camera & DVR

960H Camera & DVR

...

960H Camera & DVR

Network

EVS
Central Storage
Backup

Network

M70-4U
Network Video Matrix

DVI Video
Cable

DHL460UTS-E
2*5 Video Wall

DSS7016
Video Management
Server

DSS Client

DSS Client

DSS Client

DSS Client

NKB1000 keyboard

NKB1000 keyboard

NKB1000 keyboard

NKB1000 keyboard

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Successful Case | Mexico City Plaza Inn Surveillance

Dahua Technology, Make Your Life Safer