

A background image of a city skyline, likely New York City, with the Empire State Building prominently featured. The image is overlaid with a blue and green geometric design that splits the page into white and blue/green sections.

DSS Professional

Highly Available Security Software for Enterprise

Version: V8.1
Date:2022.05

/01

What is DSS Professional?

- DSS Professional



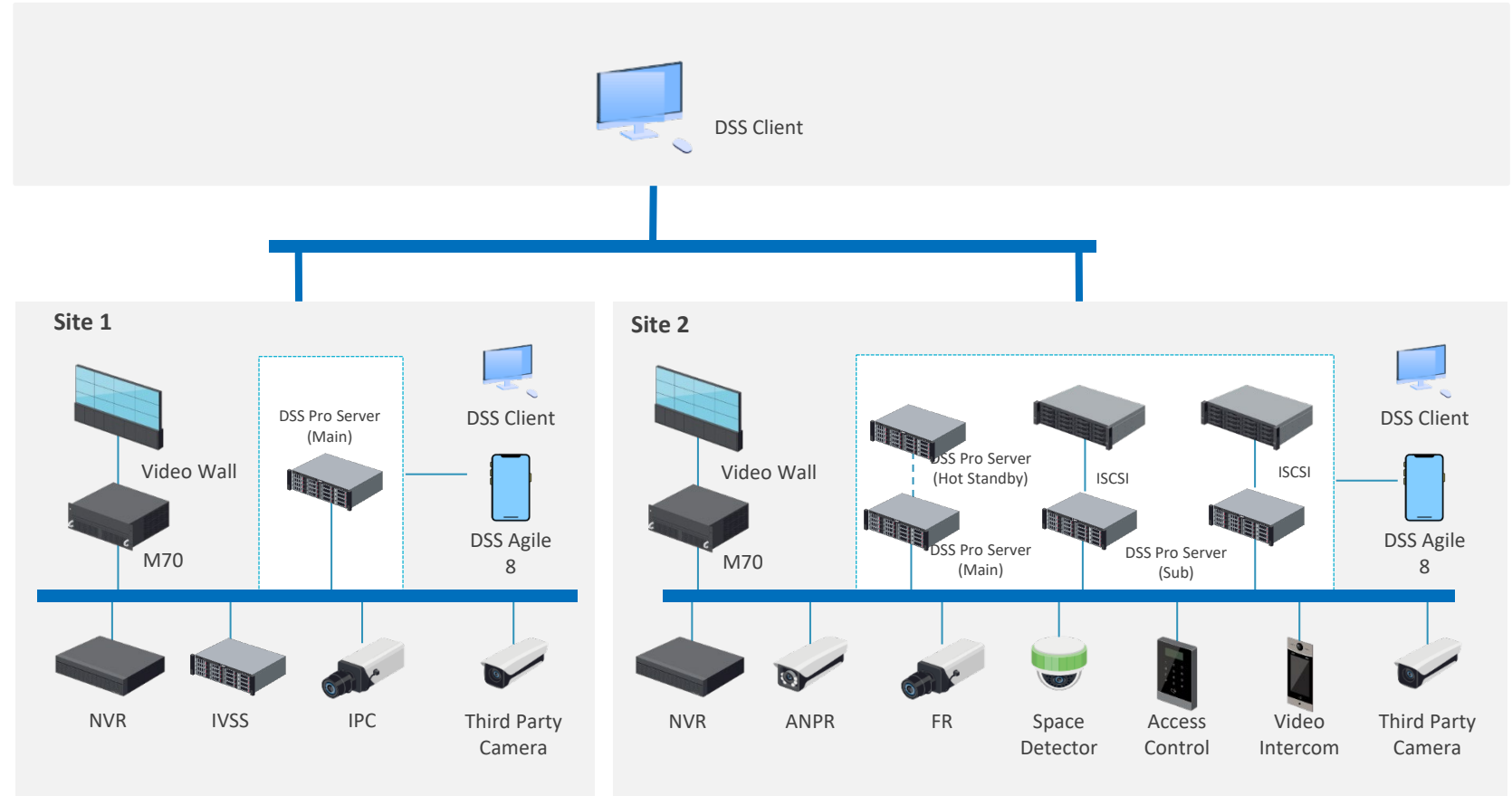
What is DSS Professional?

Highly Available Security System for Enterprise

Dahua Security System (DSS) Professional is designed for centralized security management, it enhances hardware performance and provides centralized video monitoring, access control, video intercom, alarm controller, POS, radar and AI features such as face recognition, automatic number plate recognition (ANPR), and video metadata.

Whether you are a small business with a few cameras, or a global business spread across the globe with +20,000 cameras, With our DSS product range you can choose the exact solution your business needs now. You can easily scale, upgrade or add functionalities if your needs change in future.

Build your security management system on a solid foundation with Dahua Security System (DSS).



/02

Why Choose DSS Professional?

- DSS Professional



Why Choose DSS?

Unified System, Unlimited Possibilities

Unified manage video, access control, video intercom, alarm controller, POS, radar, AI features, and more. DSS allows you to monitor and configure your system in one place. With a single interface to master, your team spends less time in training. And since it was designed to unify your entire security environment, it provides a familiar experience even as your system grows, unlocking new gains in efficiency. When all of your physical security activities, functions, and data originate from within the same system, you can harness the flow of data across your security activities. Making it easier and more efficient to secure people, buildings, and assets - while also supporting operational efficiencies.



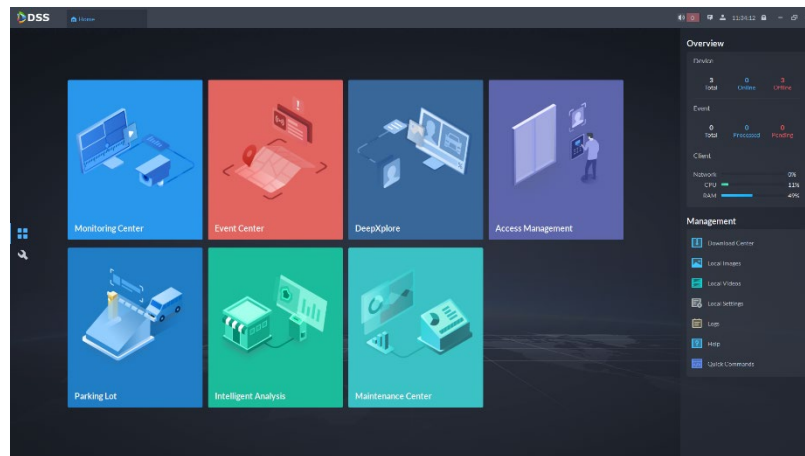


Why Choose DSS?



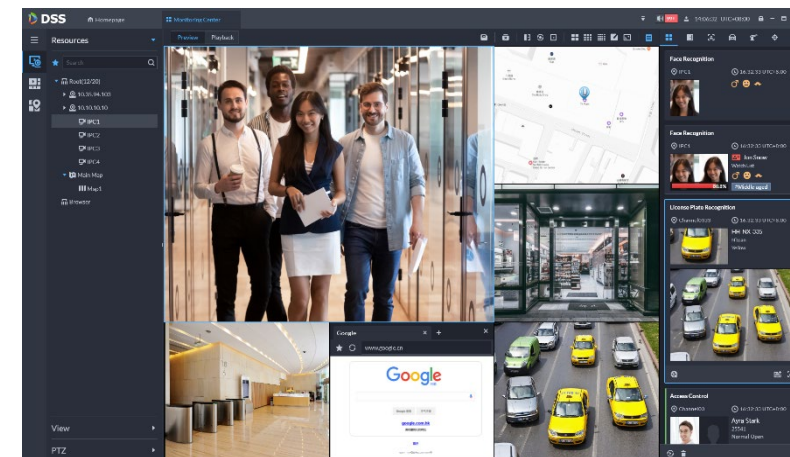
User-Friendly UI/UE Design, Easy to Use

We have redesigned and decluttered the DSS 8 interface to make it more responsive, colourful and simple. The system can be managed and operated by one single PC Client, maximize ease of use, and reduce training costs. It is designed based on the actual business application. We call it "3+2+1+N application-based design". It is composed of three security application management modules, two target object (people and vehicles) management modules, one system operation and maintenance management module and N expansive application.



AI-Powered Applications, Proactive Security

Integrates with the AI capabilities of front-end devices such as face recognition, automatic number plate recognition, and video metadata, it not only enables you to be notified as soon as the information you need appears, but also enables security personnel to promote proactive security measures. In addition, it can realize intelligent search for human and vehicle targets, and can quickly find the information you need from the trajectory according to the time and location of the target, this feature enables quick searches for relevant incidents and suspects, enabling security personnel to facilitate further investigations.





Why Choose DSS?

Scalable Design, Makes It Easy to Manage Growth

Security management comes in all shapes and sizes, from a few local cameras to thousands spread across the globe, from one vendor product to multi vendors products, DSS Professional makes it easy to manage growth and collaborate with stakeholders.

- It can be easily expanded to up to 20,000 channels and 4PB central storage capacity through the distributed system.
- Based on the multi-site features, customers could show all sites information such as live stream/playback/events into one single PC Client by a parallel hierarchy architecture simultaneously.
- DSS integrates various industrial applications through full interoperability with many partners, also DSS Synthesis makes it easy to synchronization of triggered events and records between third-party systems and DSS Professional.

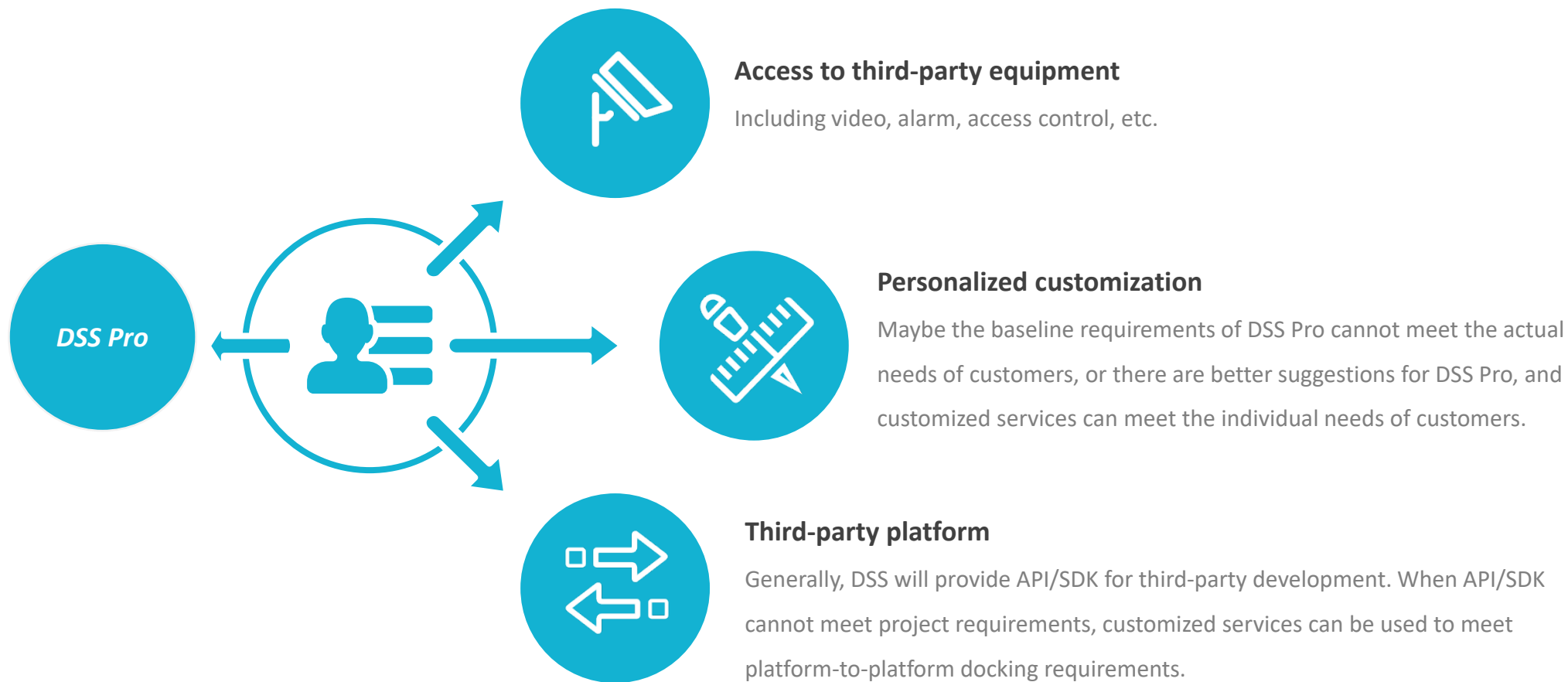




Why Choose DSS?

Customized Services, Enhance Competitiveness

Dahua offers customized services for DSS Professional, this can meet customer's personalized needs and help customers form market competitive advantage.



/03

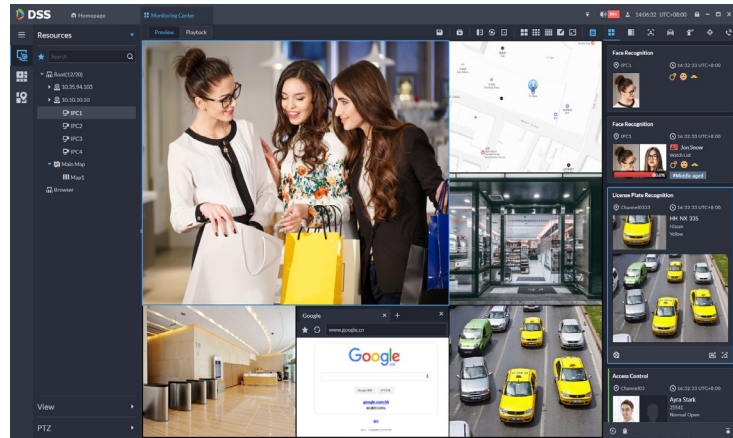
Main Functions

- 3 Security Scenario Application
- Access Management
- Parking Lot Management
- Intelligent Analysis
- MPT Application
- Maintenance Center



Three Security Scenario Application

Before the Event



Monitor Center

For the use scenes of security personnel in the monitoring room, it provides real-time monitoring applications integrating devices, maps, events and other multi-dimensional.

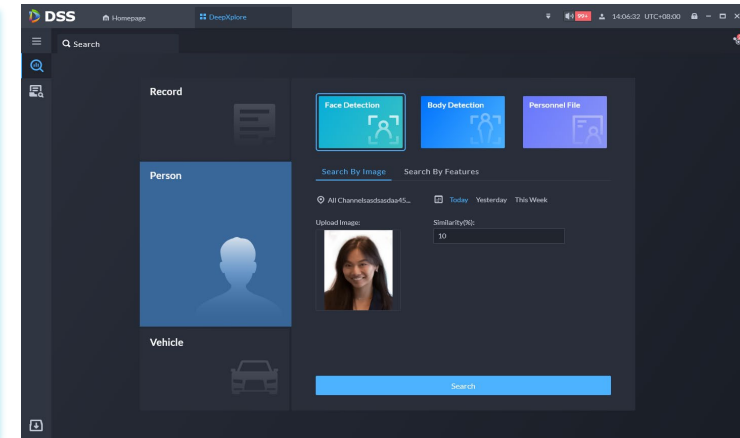
During the Event



Event Center

For security and alarm operation companies, it provides alarm processing in the alarm room with panoramic application that integrates alarm, investigation and disposal.

After the Event



Deep Xplore Center

For the police, alarm operations and other companies, it provides the after the events video, pictures, incident investigation and evidence application.



Three Security Scenario Application | Monitor Center

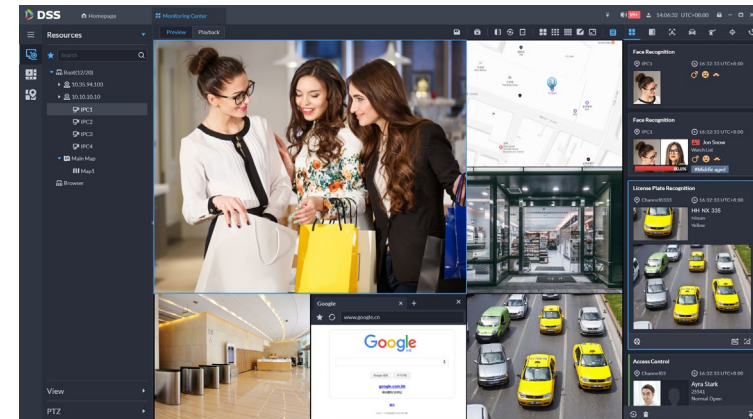


Easier monitoring

- DSS PC Client can provide multi-screen output and more multidimensional surveillance, like video, face recognition, license plate recognition, access control, map, webpage and so on.

Quick playback

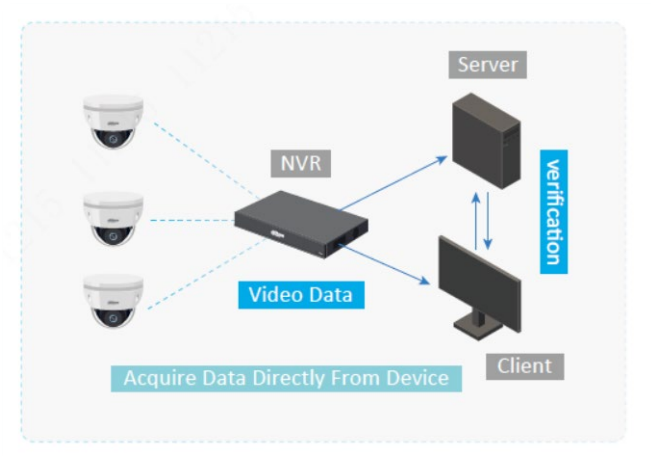
- It utilizes interface expansion on the right side to respond to events in time. By dragging an event entry to any window, the related video will then automatically play from 15 seconds before the event to 15 seconds after the event.
- It unifies Live View and Playback on the monitor, making it more convenient for users to operate it.



Three Security Scenario Application | Monitor Center

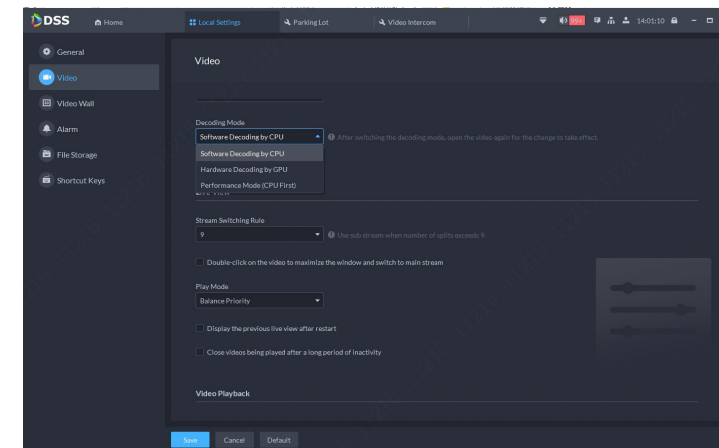
Better Bandwidth Management

- Data which are not visible are not transferred.
- Window with live view in the background are paused.
- DSS PC Client supports acquiring video stream from IPC/NVR directly when **live view and playback** video, it won't occupy forwarding bandwidth of DSS server, it is great for retail or chain project.



Flexible Decode Strategy

- Make full use of the decoding capabilities of CPU and GPU, CPU is used first when decoding , and GPU is enabled when the CPU occupancy reaches the threshold.



Three Security Scenario Application | Monitor Center

- For medium and large monitoring centers, combined with decoding/matrix equipment, DSS unified management and control of the video wall.
- Multi-screen display ensures intuitive monitors.
- Push live video or playback to video wall.
- Push alarm video to video wall/ control client.
- Alarm flickers on the map when alarm occurs.



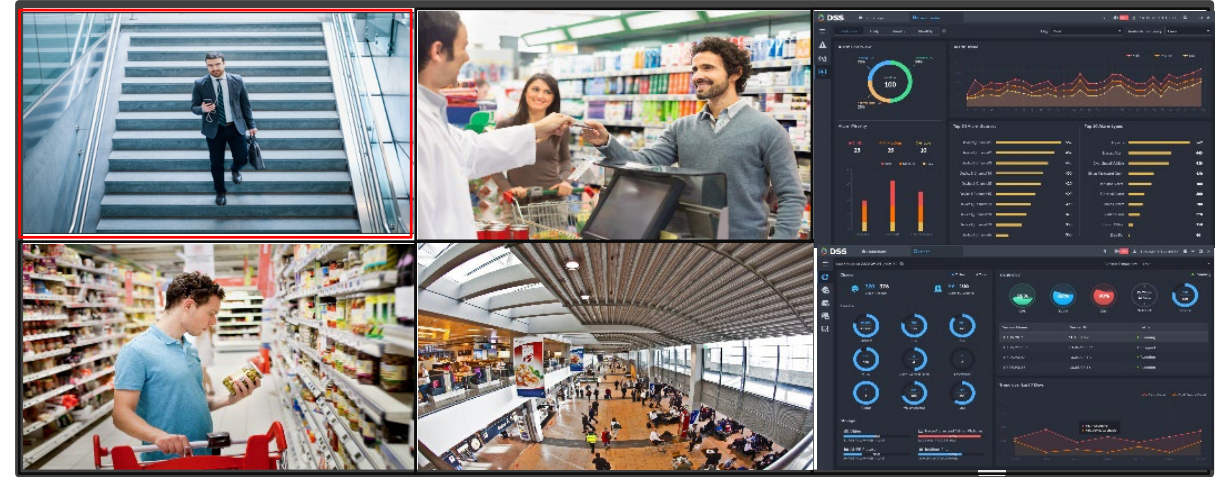
Decoder



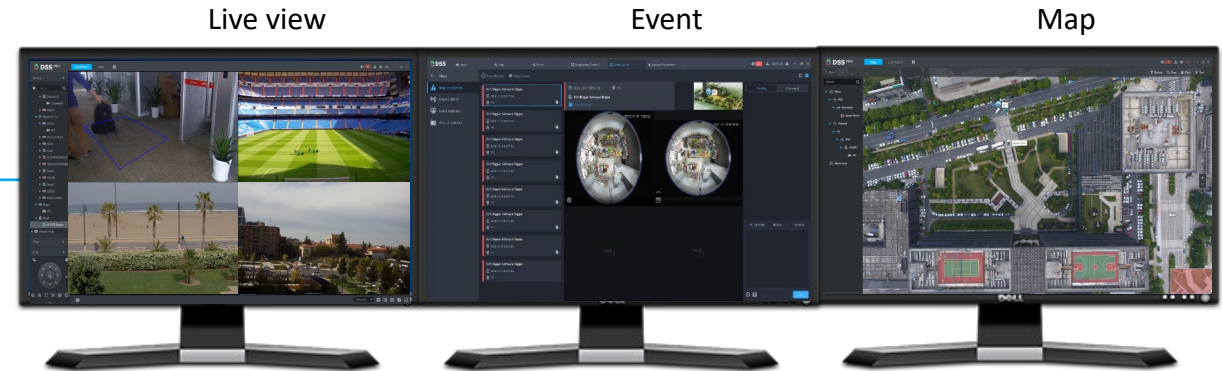
DSS Server



PC



Video Wall



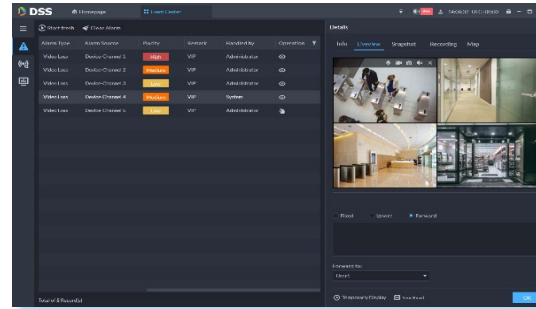
Multi screen display of DSS Client

Three Security Scenario Application | Event Center



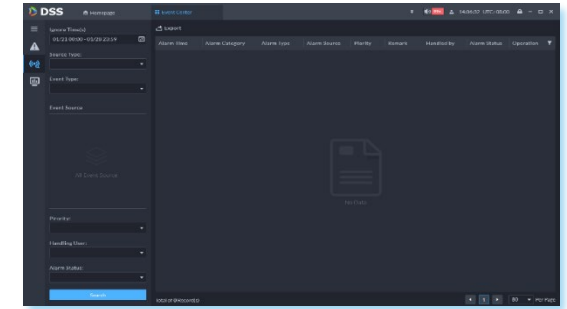
Event Dashboard

- AI statistics on alarm information, including the number of different priority alarms, alarm processing status, alarm trend, high frequency location and types.



Real-time Event

- Receiving real-time alarm info enables users to handle alarms quickly.
- Provides detailed information of the alarm, including pictures, video, and location.
- According to urgency, users can decide whether to send an email to notify relevant personnel or not.



Event History

- According to processing situation, priority, time, and processor, users can utilize historical alarm query and analyze events.



Event Source

DSS can manage various alarm sources, such as device, video, access control, alarm, parking lot, soft trigger, and alarm from third-party system.



Soft Triggers

A Soft Trigger allows users to create a custom button that appears on bottom left of the live view windows which can be used to trigger “quick commands”.



Event Linkage

There are a wealth of linkage actions to trigger based on an event, like recording, snapshot, **pop up video in live view or video wall**, open/close the door, send email, and HTTP or CGI commands.



Third party event synchronization

Uses Bridge as a middleware to get event sources from third-party systems. Integrates third-party systems and devices - using HTTP Request as a linkage action.

Three Security Scenario Application | DeepXplore



Make your target search faster and easier

Quick Search Entry

- In the live View or playback interface of the monitoring center, you can pause the video, select the face image of the target and run image search.

Integrated Search

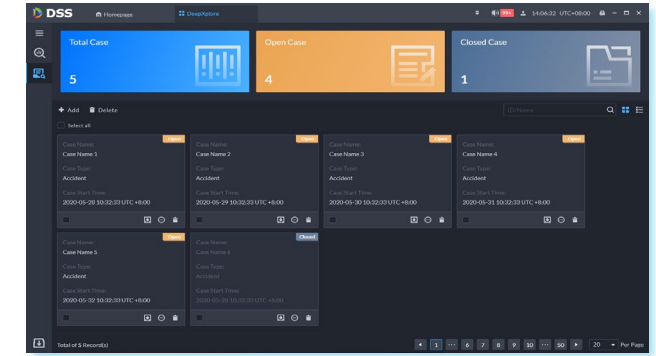
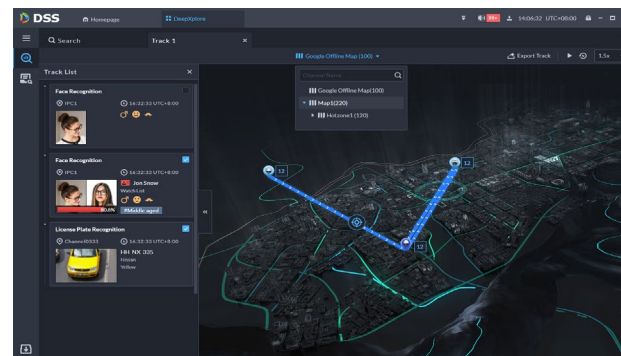
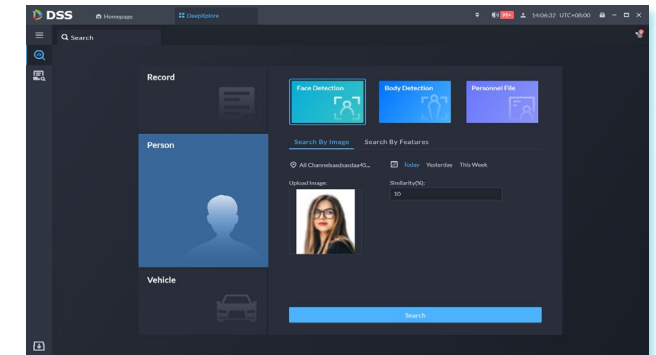
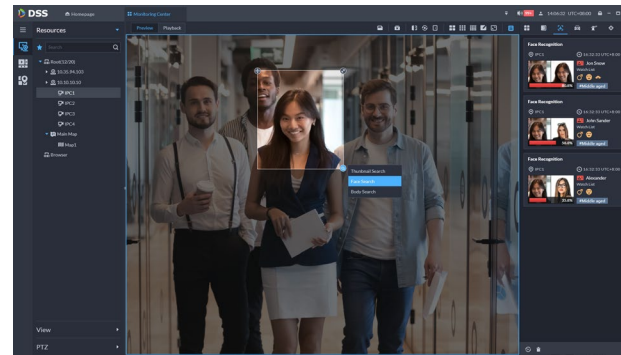
- It is an AI-based search feature enabling intelligent retrieval of humans and vehicles in time and space.
- Archive people's entry and exit records, vehicle entry and exit records, captured images of people, driving records of vehicles, etc., and allow searching of related files

Activity Track

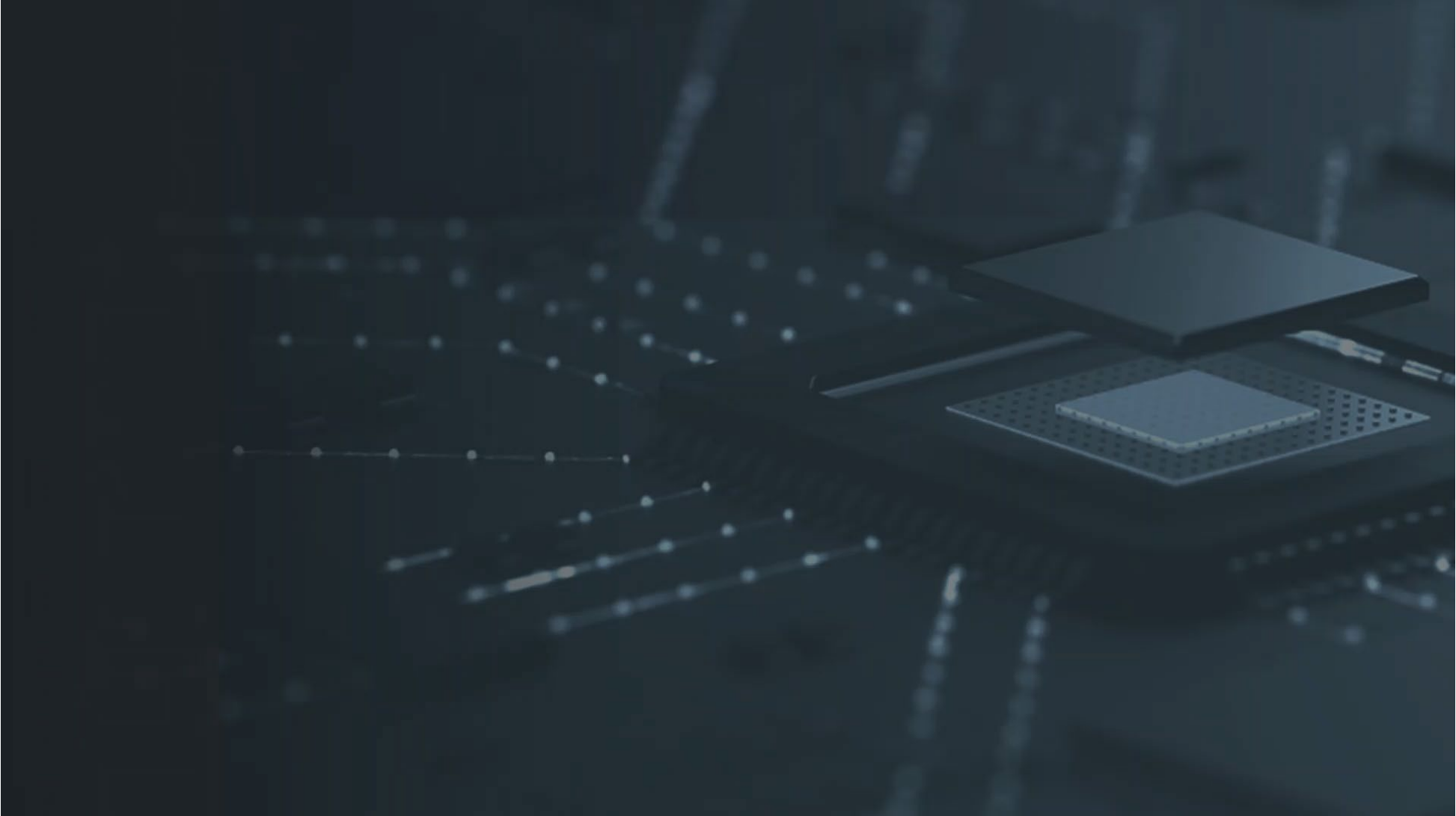
- Search for records of multiple event types, such as human body, face image, and identity confirmation, and form tracks in chronological order.

Case Archive and Report

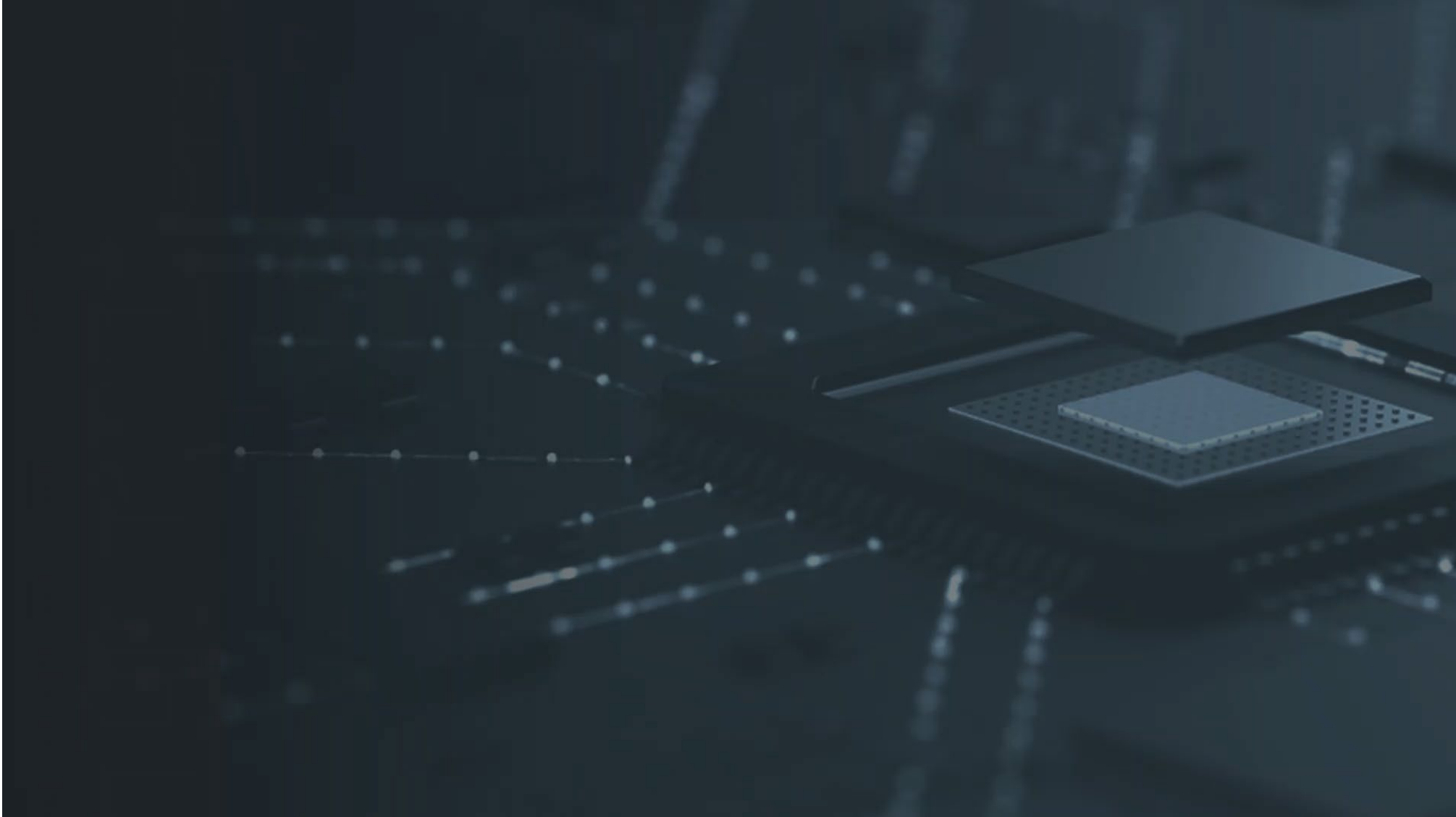
- A case library can be created to manage case-related events, pictures, videos, documents, etc. in a unified manner.
- Generate and export system reports, including basic information, videos, pictures, and update records, improving event investigation efficiency.



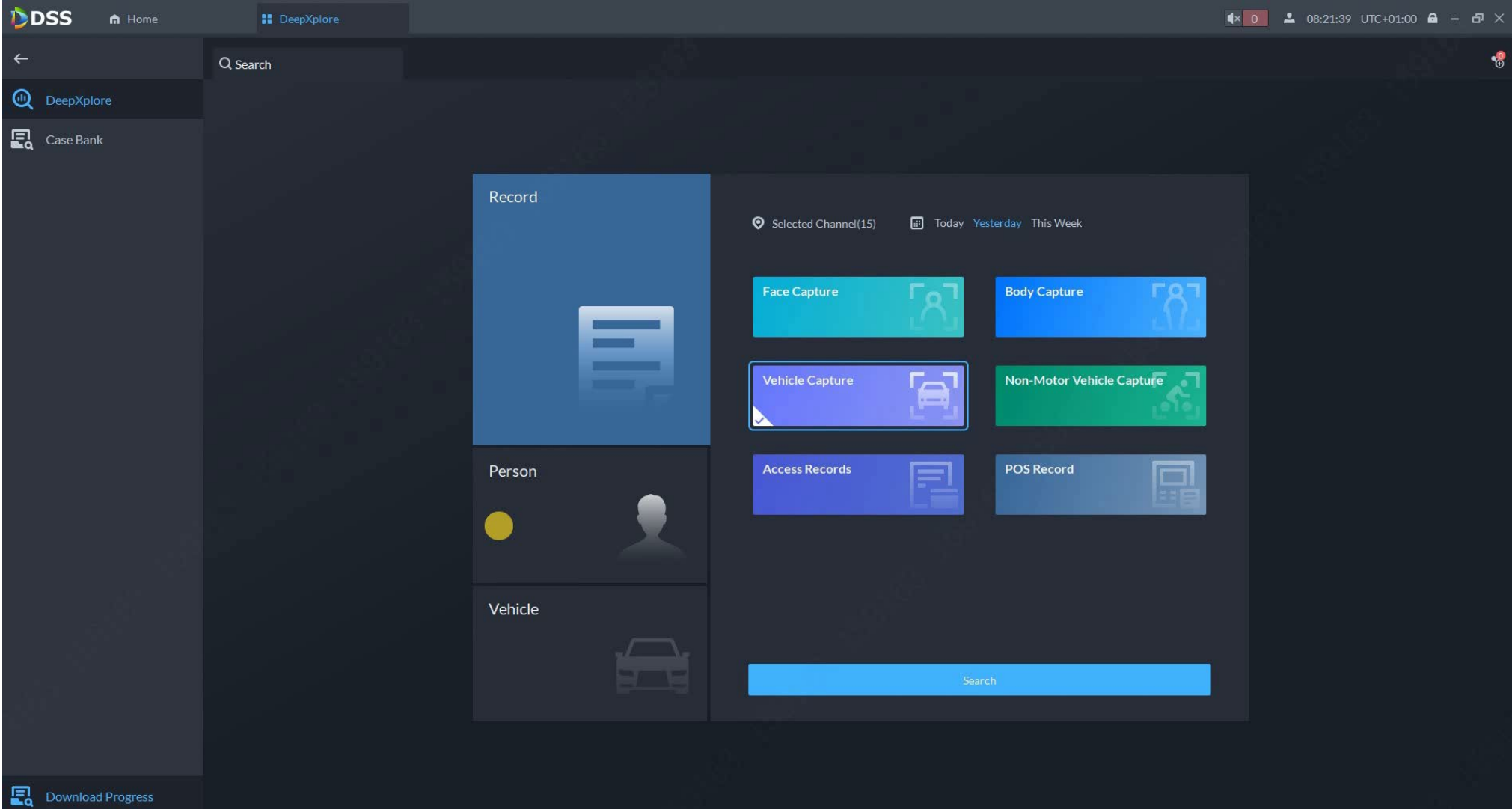
Track a person on the map



What if the person is not in the database ?



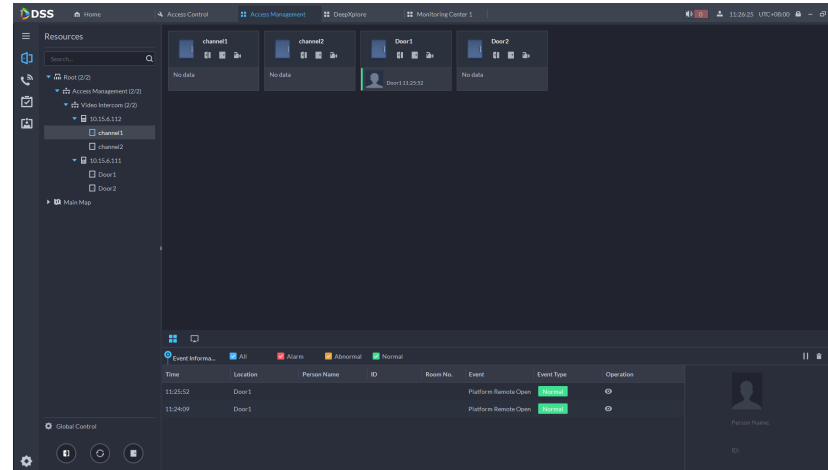
License plate search



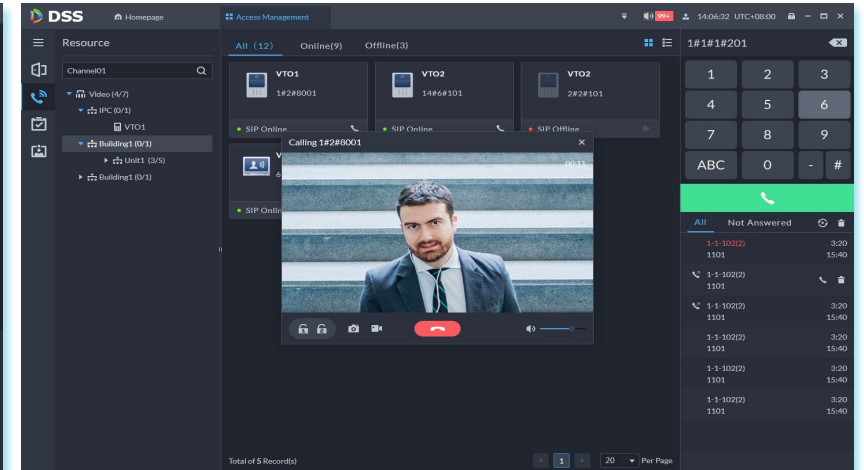
Multi-dimensional management of personnel

Manage the entry and exit of personnel in residential areas, parks and other scenes to improve automation and intelligence, including access control management, video intercom, visitor management, and attendance management, realize multi-dimensional management of personnel.

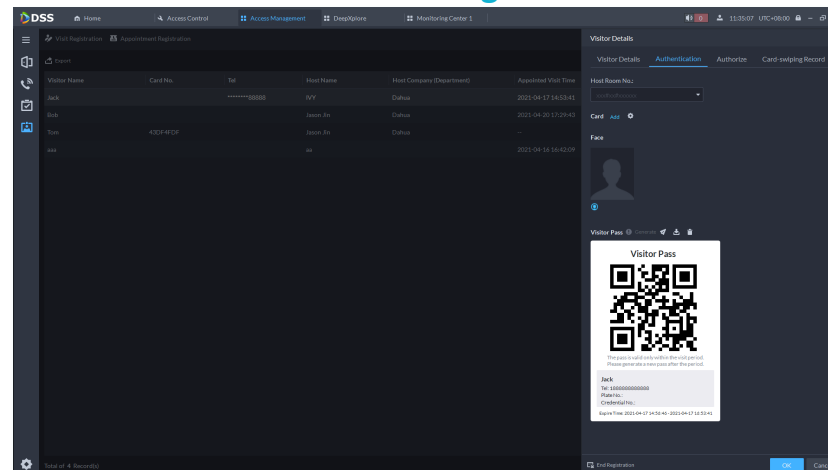
Access Control



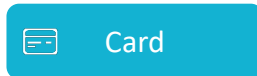
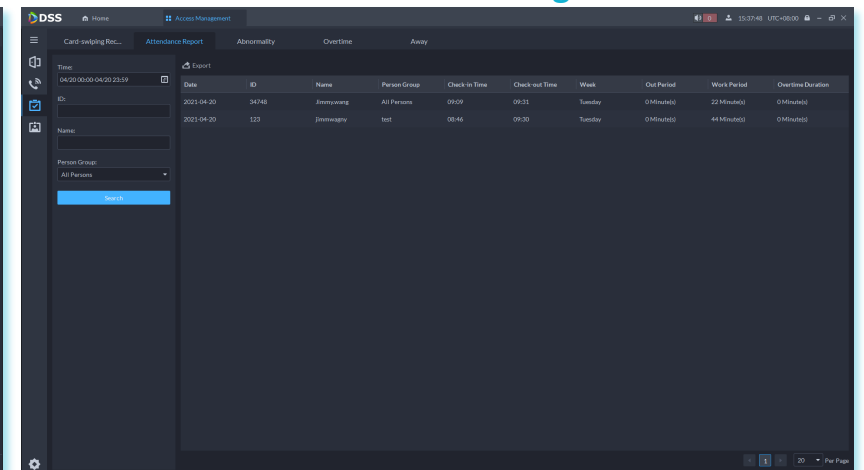
Video Intercom



Visitor Management



Attendance Management



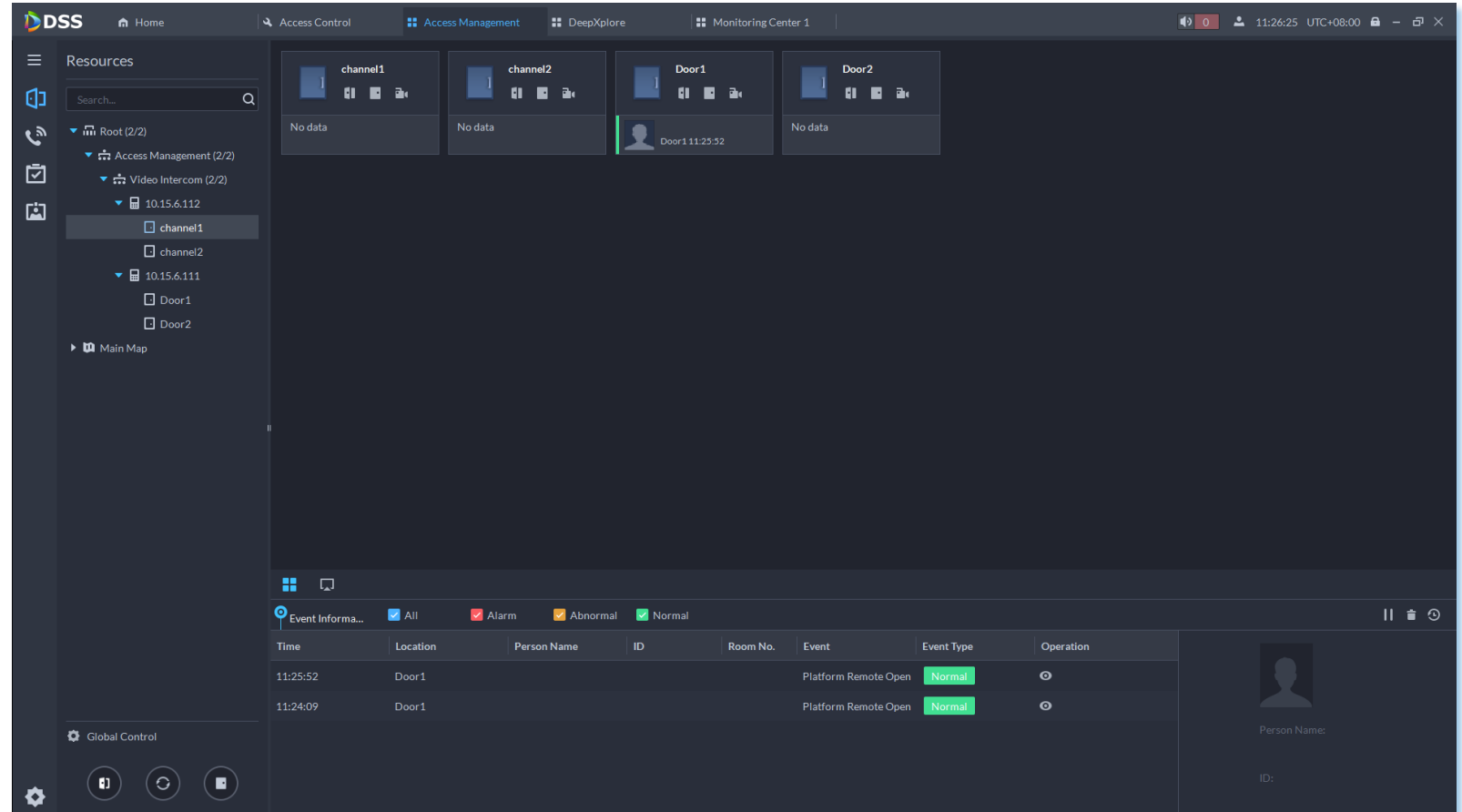
- Achieve remote access control, view access videos and events.
- Visual door status monitor.
- One-key to control all doors.
- Access level and authorities management.
- Binding the video channel and access control channel, then you can focus on the key entrance & exit.
- Configures advanced functions such as First-card Unlock and Multi-card Unlock.
- Integrates Dahua's turnstile with Face Recognition Terminals.

 Fingerprint

 Card

 Password

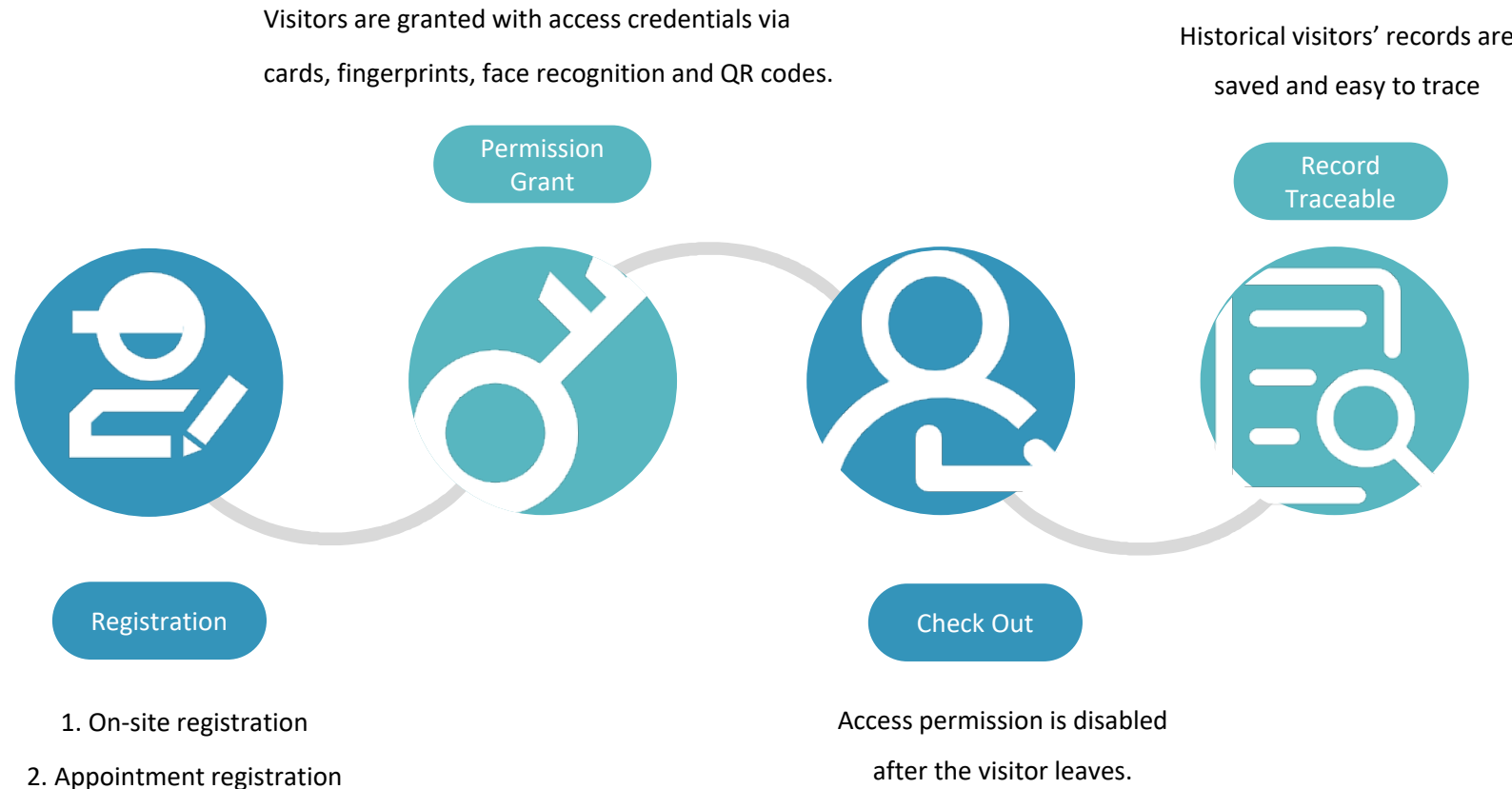
 Face



The screenshot displays the DSS Access Management interface. The top navigation bar includes 'Home', 'Access Control', 'Access Management', 'DeepXplore', and 'Monitoring Center 1'. The left sidebar shows a 'Resources' tree with a search bar and a hierarchy: Root (2/2) > Access Management (2/2) > Video Intercom (2/2) > 10.15.6.112 > channel1 (selected), channel2, 10.15.6.111 > Door1, Door2, and Main Map. The main area features four status cards: channel1, channel2, Door1 (showing a person icon and 'Door1 11:25:52'), and Door2. Below these is an 'Event Information' table with filters for All, Alarm, Abnormal, and Normal. The table contains two entries for Door1, both 'Platform Remote Open' events with a 'Normal' status. A 'Global Control' section at the bottom left has three buttons. On the right, there are fields for 'Person Name' and 'ID'.

Time	Location	Person Name	ID	Room No.	Event	Event Type	Operation
11:25:52	Door1				Platform Remote Open	Normal	👁
11:24:09	Door1				Platform Remote Open	Normal	👁

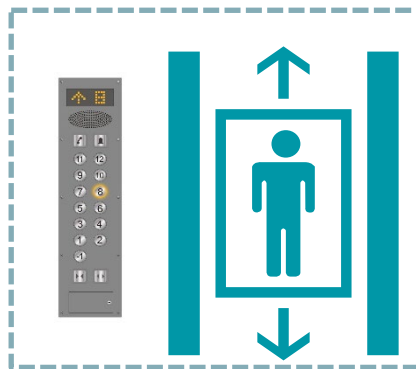
- Visitor management provides quick visitor registration and appointment registration for visitors in company, office, residential ,etc.
- Visitors make registration with their ID cards or passports.
- Visitors are granted with access credentials via cards, fingerprints, face recognition and QR codes.
- Automatic visit fusing designated access control, video intercom, vehicle entrance and exit, and lift control.
- Access permission is disabled after the visitor leaves.
- Supports setting an email template to automatically send emails to the visitors and hosts.



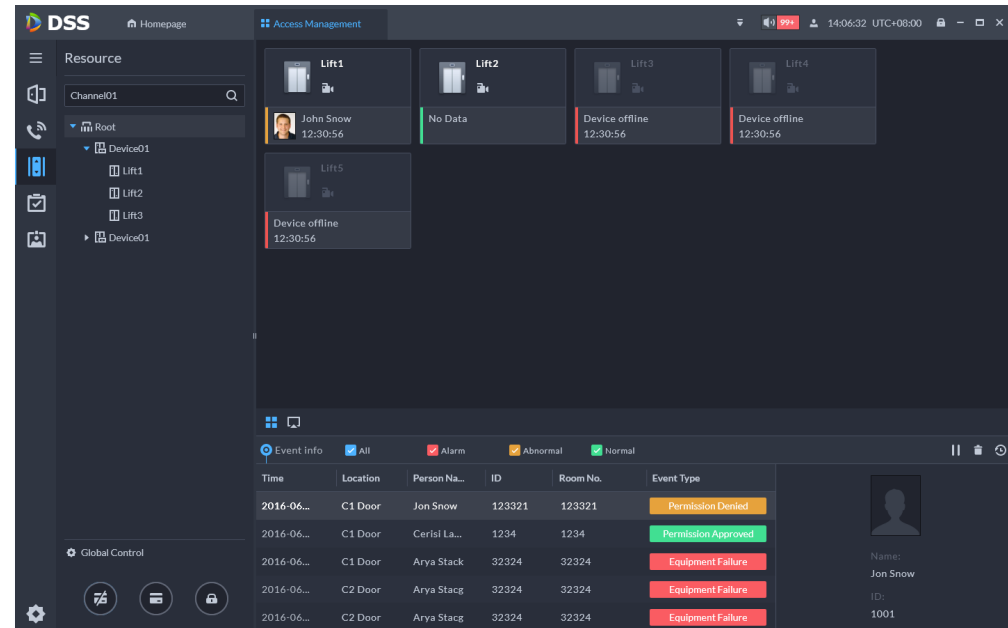
1. **Secure** the safety, **decrease** the human cost;
2. Digital visitor record, **easy** to verify and **save** the storage space;
3. **Improve** the visitor's satisfaction, **improve** the overall image of the visited unit;

Access Management | Lift Control

- Enable the authority of floor by using Face, QR code, card and etc., staff/visitor can go upstairs directly.
- Support remote public floor setting, no rights on public floor.
- Visitor can get visitor authority.
- Visitor go into elevator within a certain time.



Elevator



The screenshot displays the DSS Access Management interface. The top section shows a resource tree on the left and a grid of lift status cards for Lift1 through Lift5. Lift1 shows a user 'John Snow' at 12:30:56. Lift2 shows 'No Data'. Lift3 and Lift4 show 'Device offline' at 12:30:56. Lift5 also shows 'Device offline' at 12:30:56. Below this is an event log table with columns for Time, Location, Person Name, ID, Room No., and Event Type. The event log shows several entries for 'C1 Door' and 'C2 Door' with various event types like 'Permission Denied', 'Permission Approved', and 'Equipment Failure'. A user profile for 'Jon Snow' is visible on the right side of the interface.

Time	Location	Person Na...	ID	Room No.	Event Type
2016-06...	C1 Door	Jon Snow	123321	123321	Permission Denied
2016-06...	C1 Door	Cerisi La...	1234	1234	Permission Approved
2016-06...	C1 Door	Arya Stack	32324	32324	Equipment Failure
2016-06...	C2 Door	Arya Stacg	32324	32324	Equipment Failure
2016-06...	C2 Door	Arya Stacg	32324	32324	Equipment Failure

Richer video intercom application

- Call the App User directly.
- Call VTH device.
- **Call VTH device and APP at the same time.**
- Call VTH device first, and call can be forwarded to the APP if call forwarding has been set on the VTH device.

App Indoor Monitor(DSS Agile VDP)

- Residents can download DSS Agile VDP app by scanning App QR Code.
- Homeowner can register by scan register QR Code, only one homeowner can be registered per house.
- Homeowner can add/modify/freeze/delete member account.

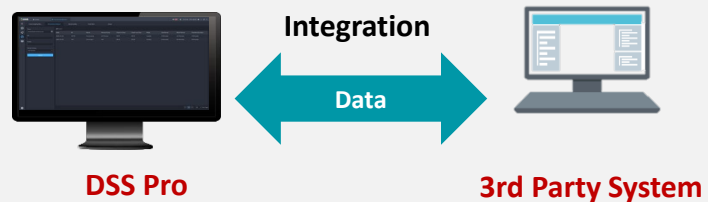
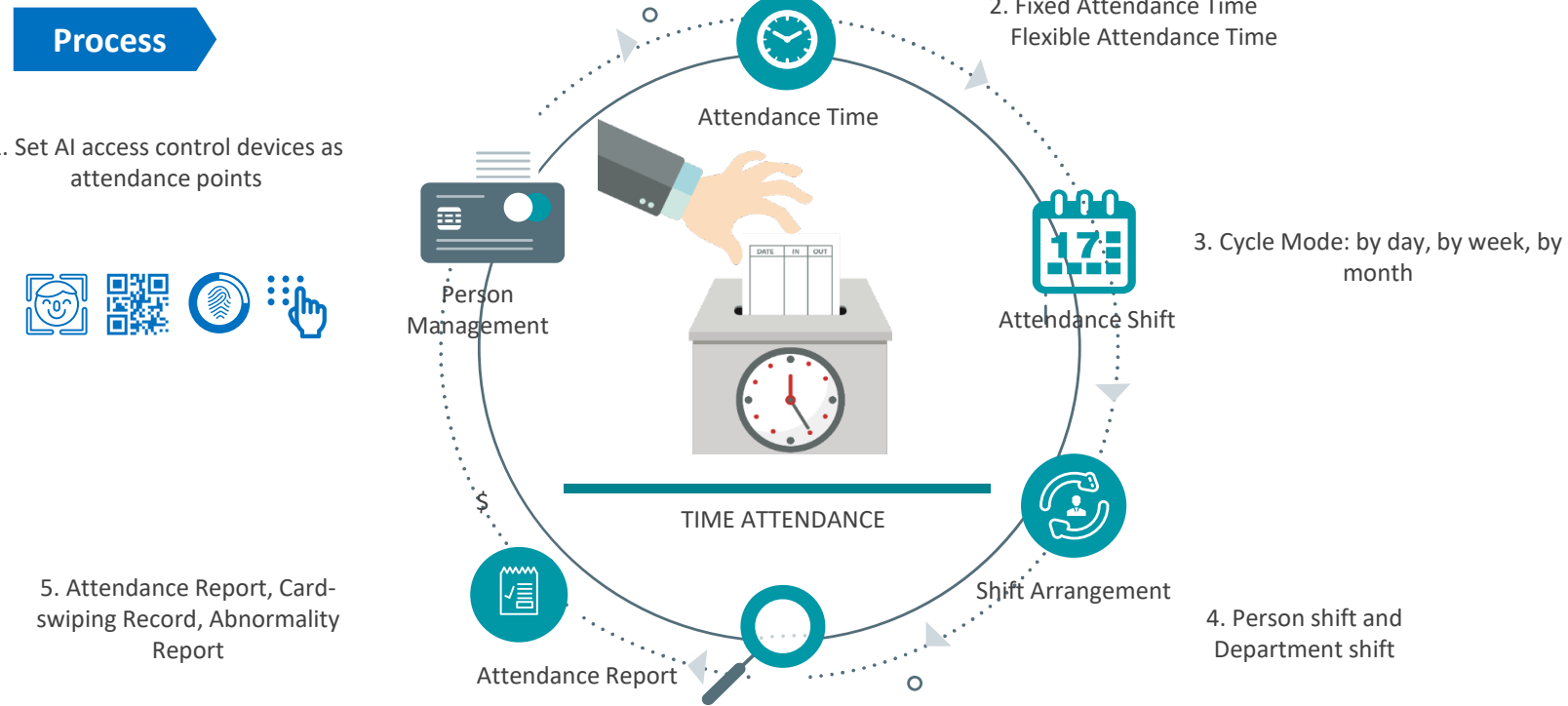
QR Code for App Download



Please scan the QR code to download the app.

DSS Agile VDP



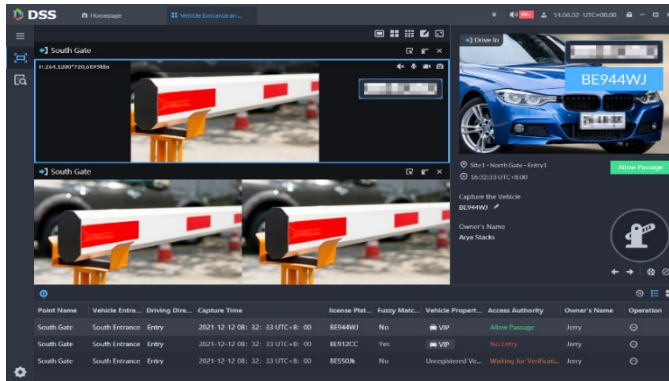


Flexible Time attendance Management

- Avoid abnormal behavior such as Fake Time And Attendance

Open API and Easy Integration

- Output standard API of Time Attendance Data for 3rd party integration
- Synchronizes attendance records from DSS to third-party system by interconnecting with databases.



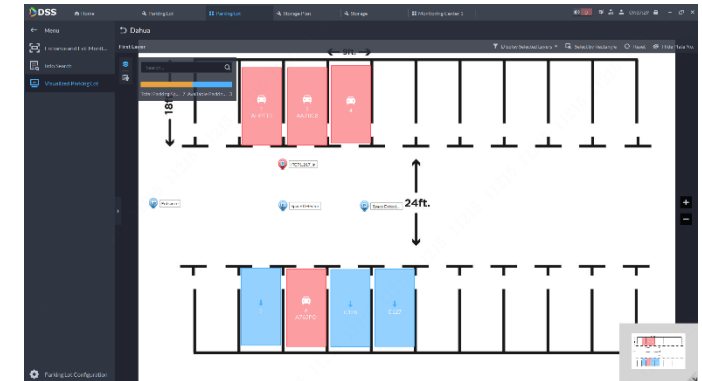
Vehicle Entrance and Exit Management

- Allows you to customize release rules for familiar/unfamiliar vehicles discretely.
- Users can respond to visitors or emergency calls through the VTO, ensuring safety even without an on-site watch house.
- Show available parking spaces clearly, and **available parking spaces counting rules can be configurable.**
- **Supports fuzzy match, multi rules are available.**
- **Open barrier after center verification.**
- Historical enter/exit/capture records can be conveniently tracked.



Parking Space Guidance

- The parking guidance screen displays the number of unoccupied parking spaces in each direction, while the parking camera indicates the exact locations of unoccupied parking spaces, helping drivers quickly find unoccupied spaces for parking.
- Parking camera help to offer video evidence when there is an argument.
- **Reserved parking spaces for special vehicles.**



Visualized Parking Lot Management

- Offers entrance and exit monitor application for on-site watch house, operator monitor vehicle entry and exit, and respond to abnormal situations in real time.
- Combined with map, realizes visualized parking lot management, visually display the status of each parking space.
- Supports Indoor and Outdoor parking space management.
- **Manager can receive some abnormal parking event in real time, such as parking overtime, no entry and exist record of special person.**

People Counting

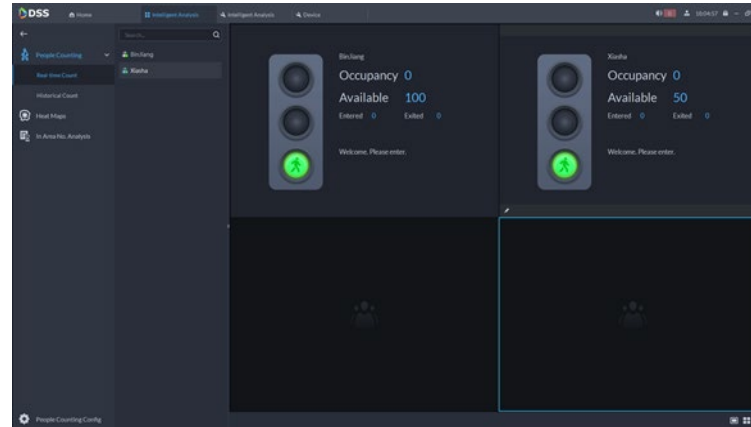
- Displays number of people in the area in real-time.
- A red light icon will be displayed on the screen and a voice prompt will be played when the number of people exceeds the threshold.
- Statistics and querying historical people counting by group or channel.
- Supports scheduled report send, by daily, weekly, monthly.

Heat Maps

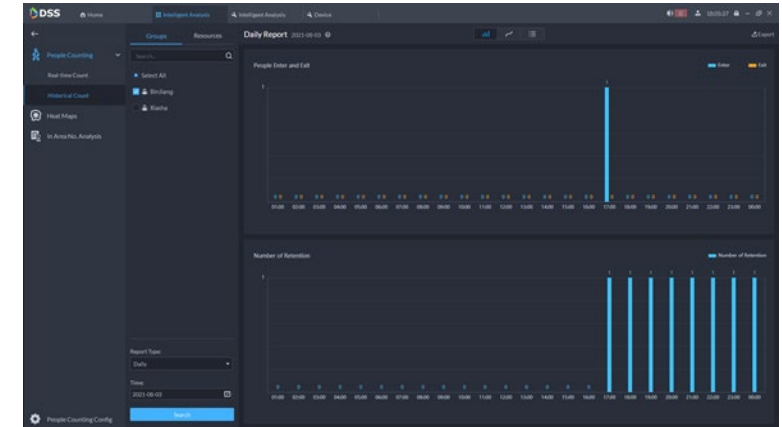
- View heat maps generated by devices. Shows the distribution of people flow by different colors.

In Area No. Analysis

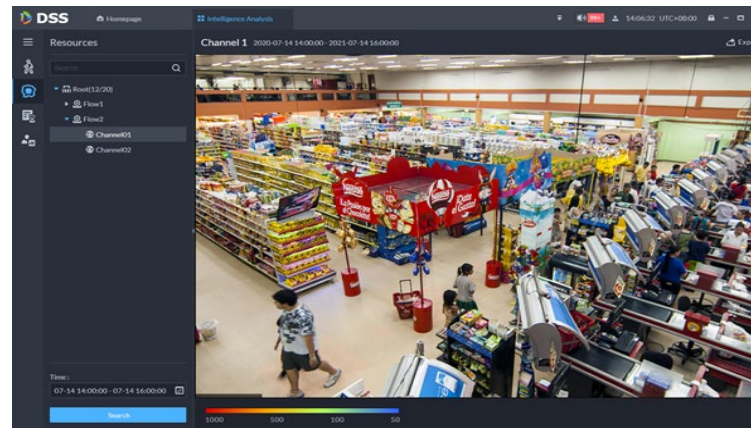
- View the in-area people number statistics of one or more channels.



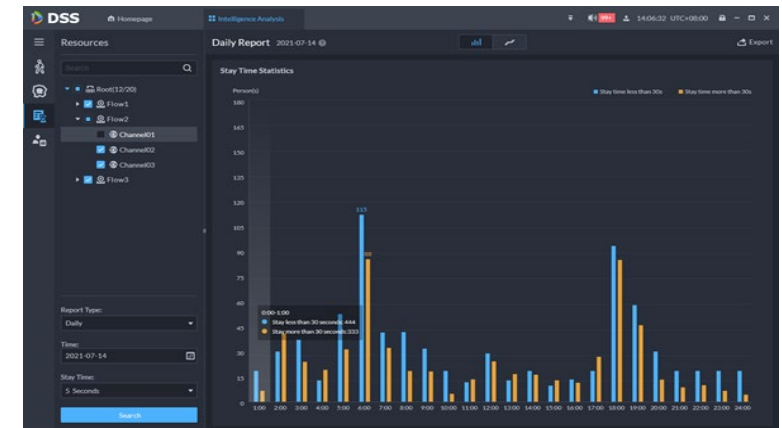
People Counting(Real-time)



People Counting(Historical)



Heat Maps

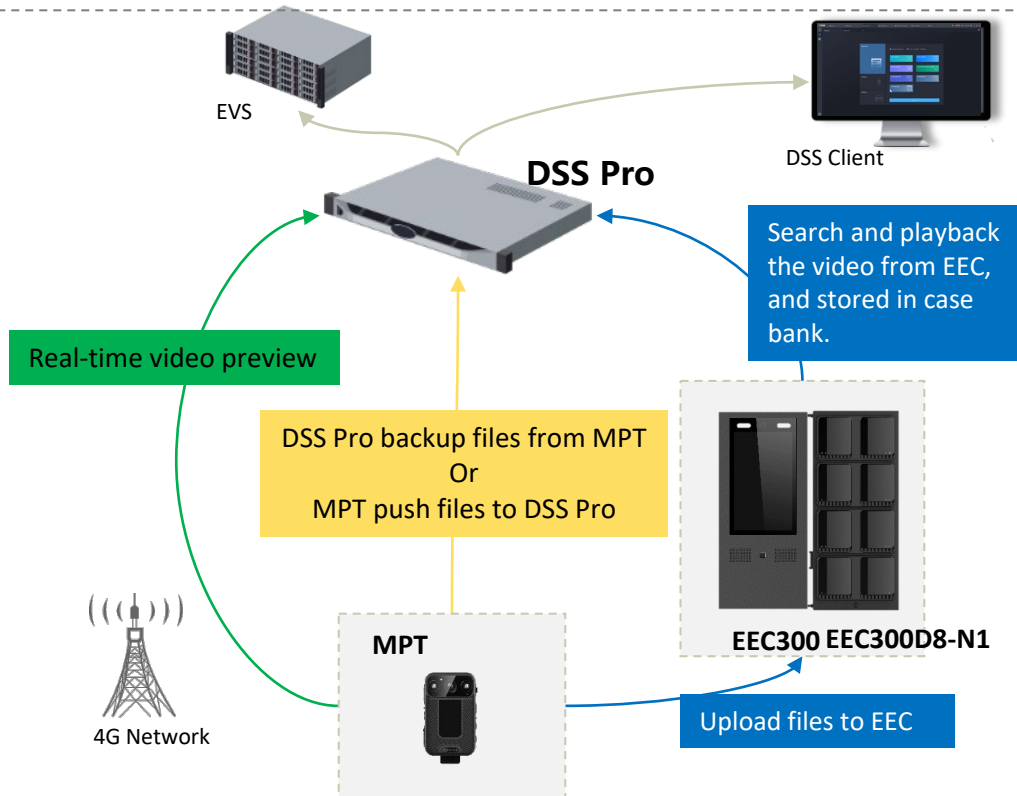


In Area No. Analysis

MPT Application

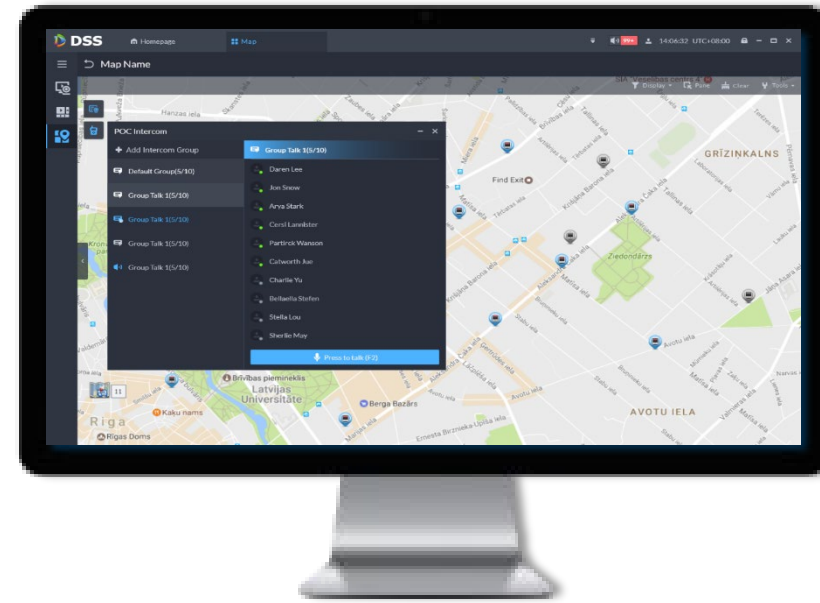
Retrieval files

1. Real-time video preview of MPT
2. DSS Pro retrieval files from MPT. Or MPT upload files to the DSS Pro.
3. DSS Pro search and playback files on EEC300, also can storage these files in **Case Bank(Incident file disk type, It can be only supported on sever local disk)**.



Group Talk

1. Combined with MPT device, DSS PC Client administrator and MPT user could create group and start any group talk, manager could check the real-time MPT user's location and assign task accordingly based on E-map.
2. Up to 30 group and 100 users per group.

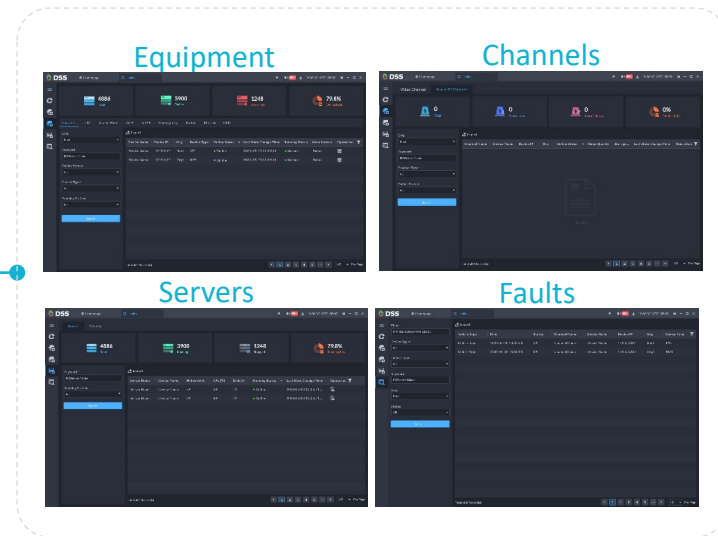


MPT220



MPT320

Easier to maintenance, ensure stability



• Resource Status

Independently displays the status of equipment, channels, services and faults.

Remote Upgrade Device Firmware(IPC, Access Controller).

• Overview

Visualized display of the health status of the platform, it provides real-time status and fault monitoring for various resources, and also with intelligent operation and maintenance applications for professional analysis.

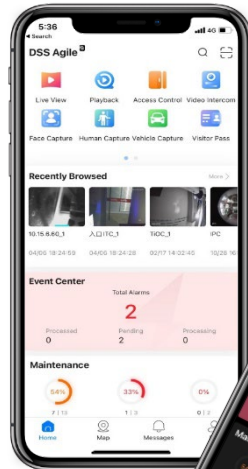
• Automatically Send Reports

Supports custom sending of report templates, including sending time, period, subject, data content, and recipients.

DSS Agile 8 (Mobile Client)

View video, and handle alarm anytime, and anywhere

White Mode



Black Mode



Scan QR code to download



Live



Playback



Favorites



File



Access



Face Recognition



Object Detection



Video Intercom

1. Push notification: You can receive and process various types of alarms. You can also receive alarms when DSS Agile is not running with a subscription button.
2. Live view: Even when you are away from your computer, you can also ensure the safety of your area right on DSS Agile
3. Playback: Videos stored on devices or the server can both be played up to 8X faster or 1/8X slower on DSS Agile. You can also use the manual recording function to record important content and save it to your phone.
4. Access control : With DSS Agile, you can remotely monitor and operate all access control devices. For example, you can open a door for someone who has a proven identity, or set a door to be always closed so that no one can access.
5. Target Tracking: For suspicious activities, you can locate targets directly in DSS Agile by searching for face recognition records from a period, uploading a face image of a specific target, or searching for capture records of people, non-motor vehicles, and motor vehicles by features.
6. Event center: With statistics, great tool for security managers.
7. Maintenance center: For better overview of your hardware.

Note:
For Operator and Manager.

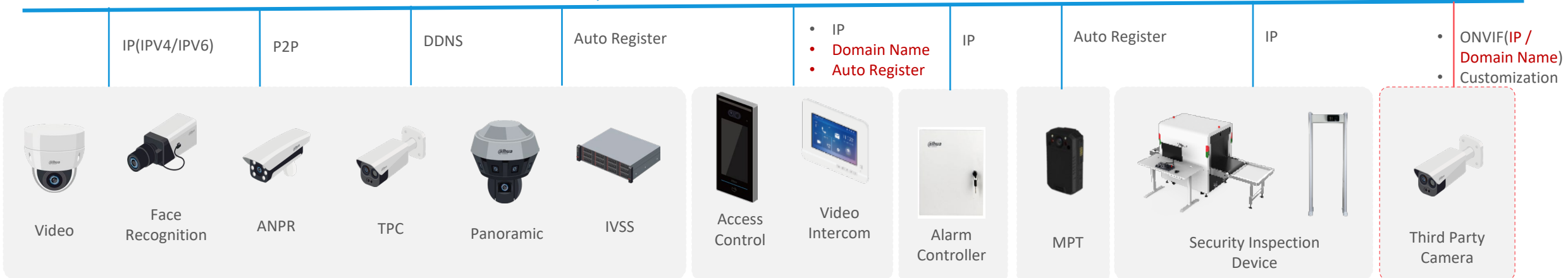
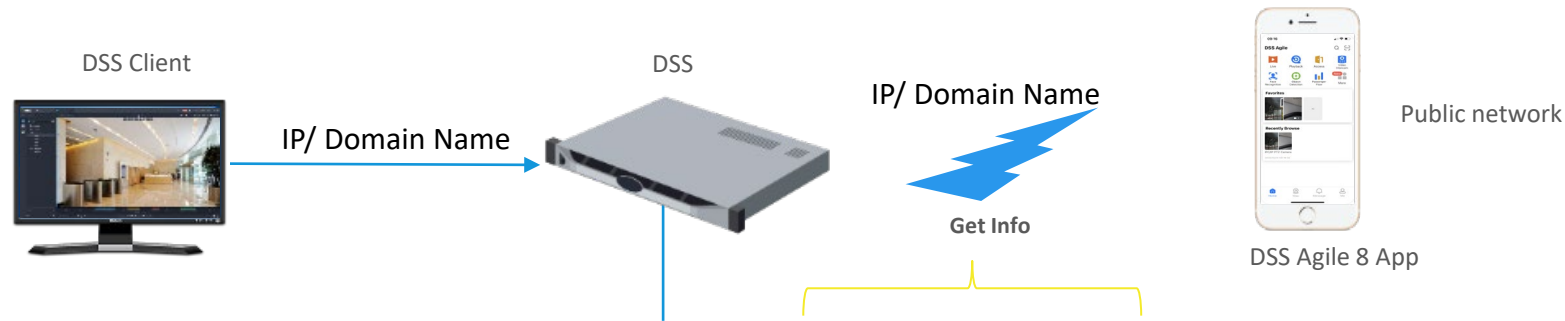
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Other Features



Diversity of device access methods

- Rich device types: compatible with the most Dahua products/third-party devices
- Various equipment access methods: IP/P2P/Auto Register/DDNS
- Support multiple DSS clients: DSS Client/DSS App, and Login in by Domain Name
- Adapt to different network environments: local area network and public network



Three-tier user authority management, safety in use

Three-tier user system

- Super administrators, administrators and ordinary users.
- User hierarchical management, users cannot operate and manage superior users.

Three types of permission control

- Menu Permission, Operating Authorization, Device permission.

Multiple security guarantees

- First login reset password settings
- Password expiration date setting
- Password valid time setting (1-365 days)
- Multiple MAC address binding operations (up to 5)

Super Administrator

System Deployment

- Distributed Configuration
- Cascade Configuration

Log

- Service Log

License

Backup And Restore

Administrator

Device

- Add Device
- Device Configuration

User

- User
- Role

Synthesis

- Event Sync
- Data Sync

Storage

- Net Disk
- Local Disk
- Disk Group

Maintenance Center

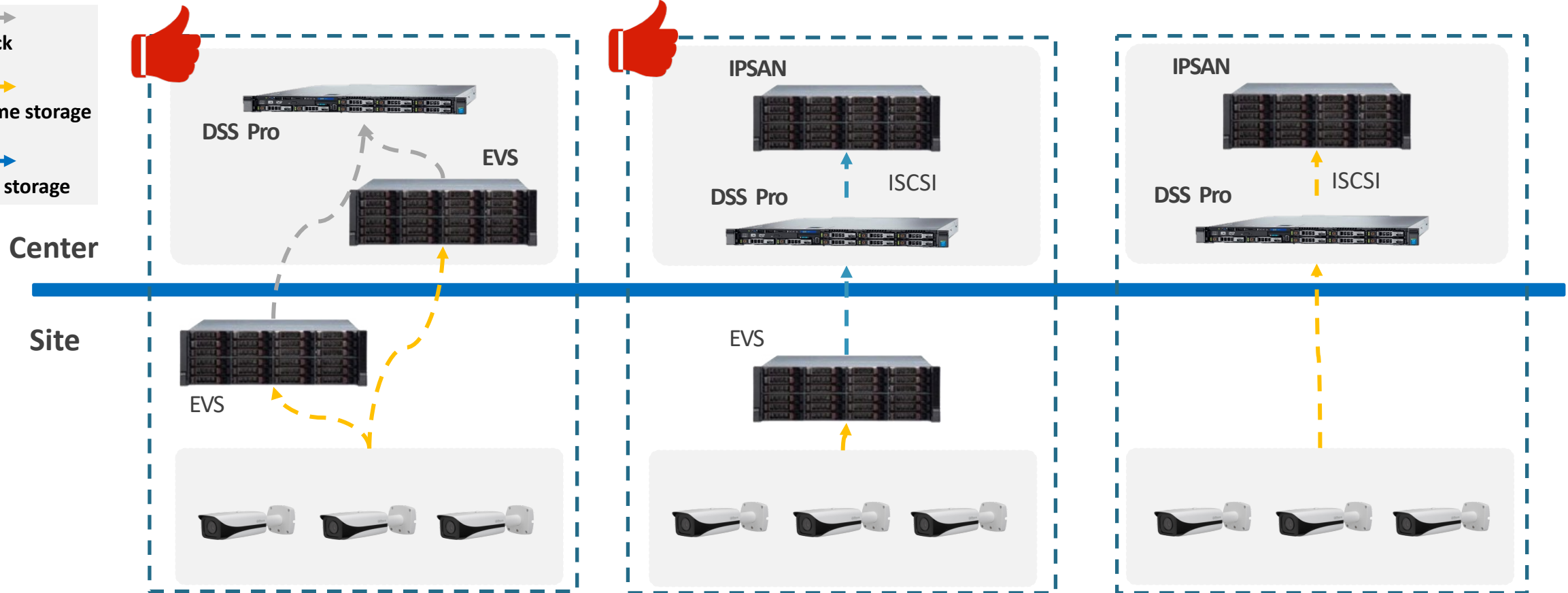
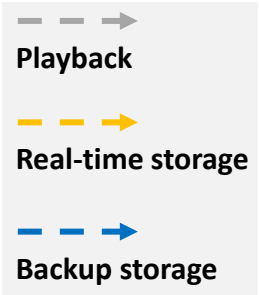
- Device Upgrade

System Parameter

Normal User

Normal permissions

Different Scenarios, Different Storages



Device Storage

- The storage device can be deployed in the center or site, the Storage device is recommended deploying on the site If a network with limited bandwidth.
- No need for record redundancy.

Device Storage & Central(IPSAN) schedule backup

- Need record redundancy
- Network with limited bandwidth

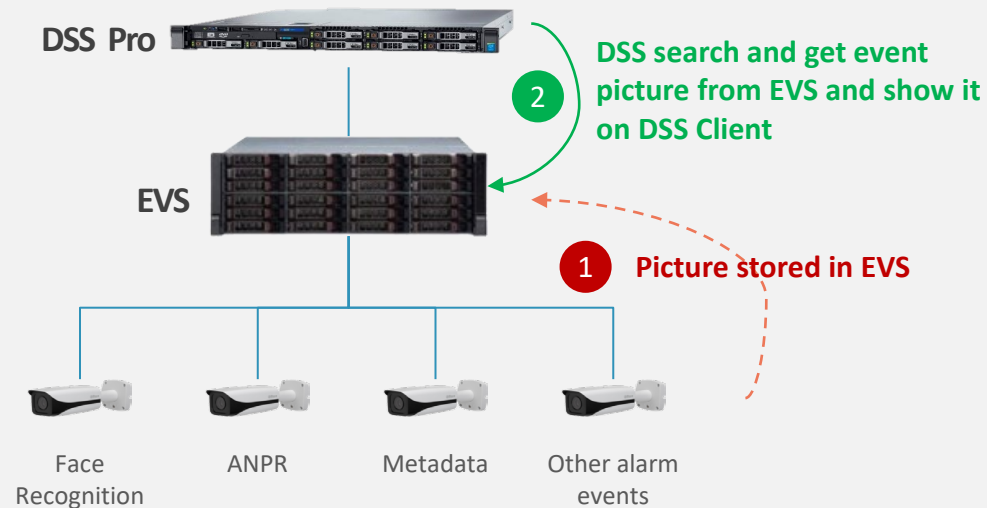
Central Storage(IPSAN)

- Projects needs
- Not recommended

Different Scenarios, Different Storages

Event Picture can be stored in EVS

Prerequisite: The configuration of obtaining images from the device and enabling event capture is complete on the DSS.

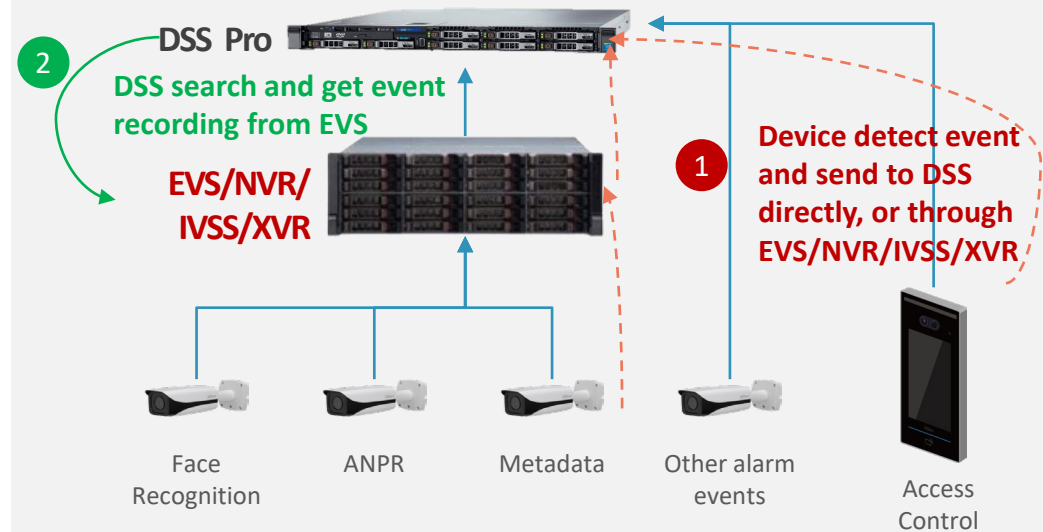


Note:

1. Until now, only EVS can support this feature;
2. This feature is effective only when the event source and linked snapshot channel are same channel, and the architecture must be IPC connect to EVS then to DSS.
3. This feature is ineffective when front device didn't link to capture an image when event occurs, such as device disconnected, motion detect, and parking overtime ,etc.

Event Recording can be stored in EVS/NVR/IVSS/XVR

Prerequisites: The DSS has been configured to obtain video from the device and enable event linkage video.



Note:

1. No matter where the event source comes from, as long as the channel for linkage recording is the EVS/NVR/IVSS/XVR channel.
2. EVS/NVR/IVSS/XVR must configure a 24-hour recording plan, DSS will search recording from EVS/NVR/IVSS/XVR according event time.

High standards, ensure system security

DSS has its own professional security team and was created following three important security standards: design, development and verification.

Security Standards

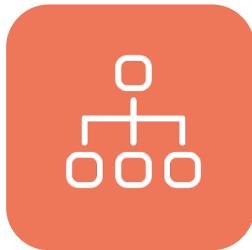
Application Security



Privacy Security



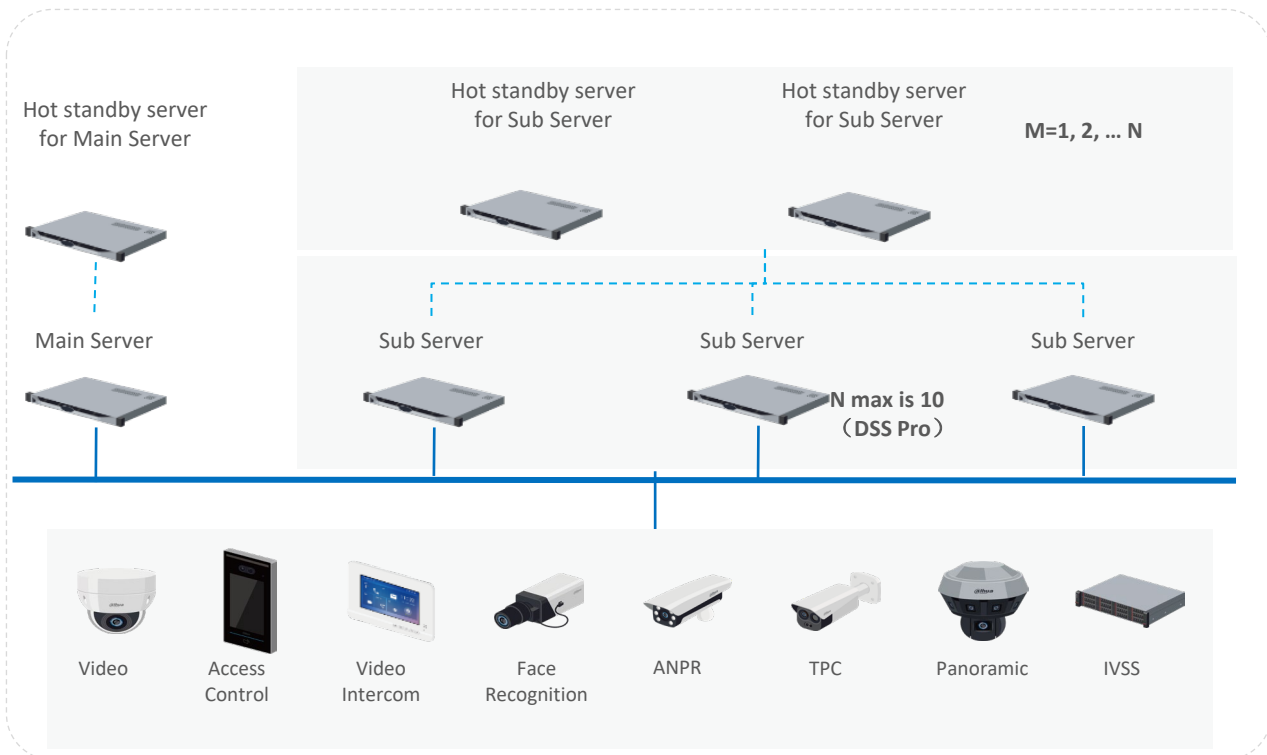
Network Security



Data Security



System Failover (Hot standby / N+M)



DSS Professional Integration Architecture

3 Types of Integration Scenarios

■ Device Access

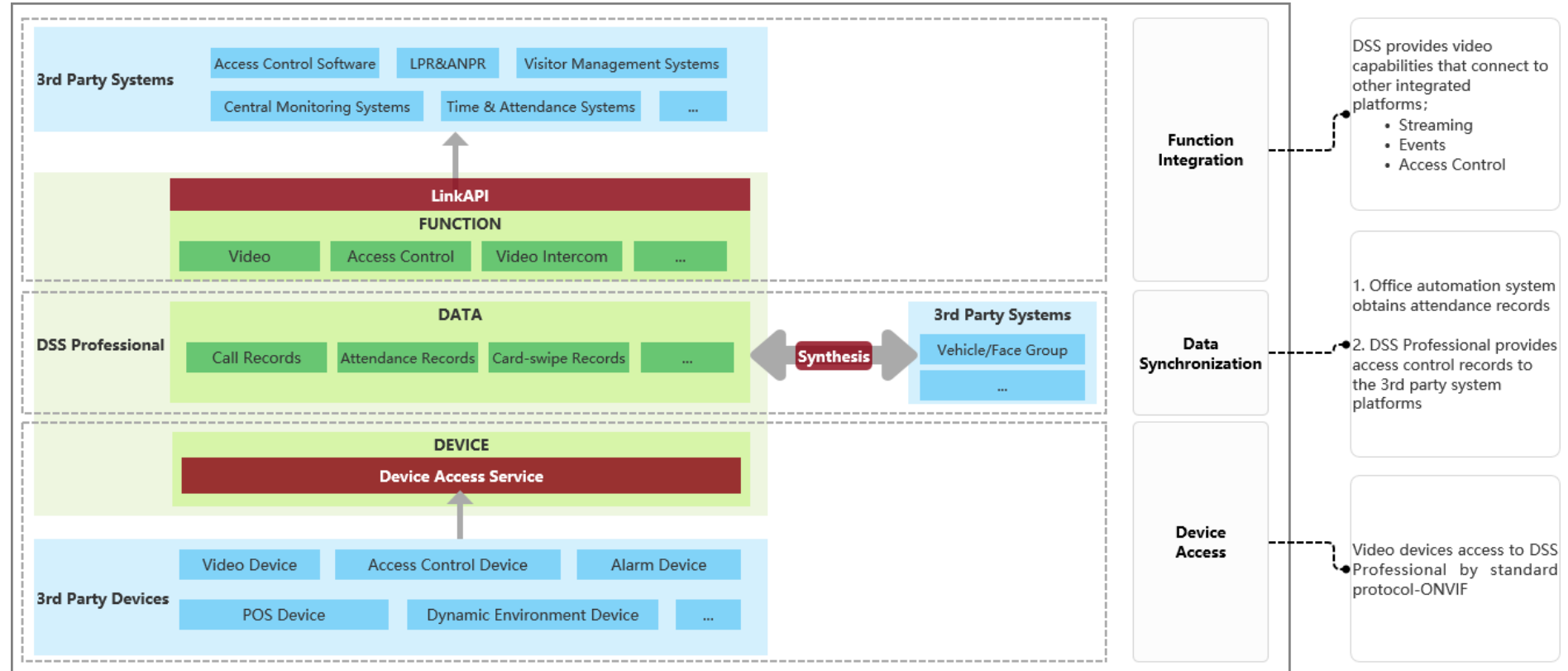
Connect devices to the DSS platform. All kinds of third-party devices are connected to the DSS platform. After the device is added, all functions that the devices have are consistent with those of the DSS

■ Data Synchronization

Synchronize data with third-party platforms. DSS platform and third-party platform are independent from each other, and their business functions do not affect each other. The platforms of both parties must be used during the interconnection

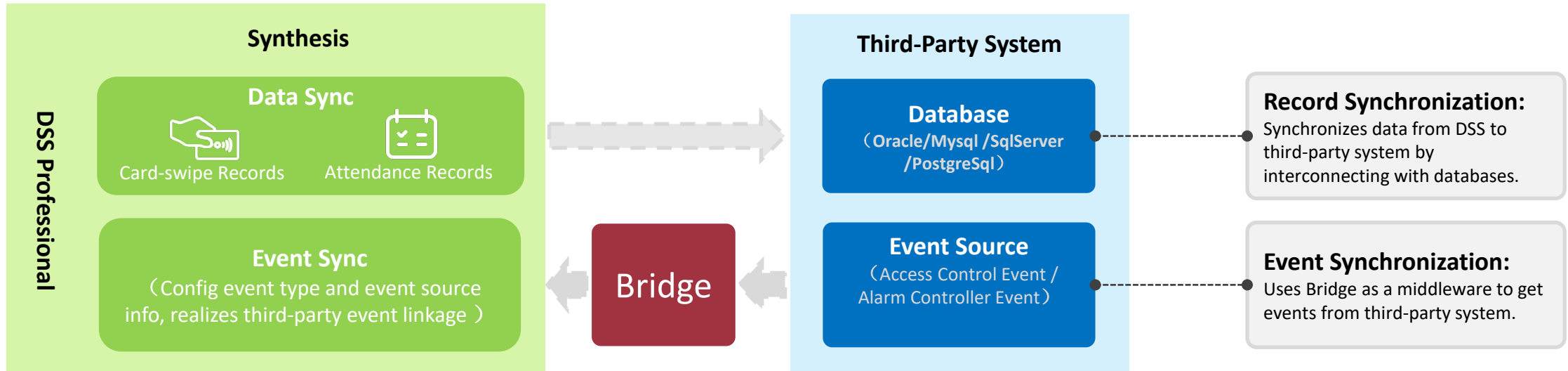
■ Function Integration

The third-party system platform needs to integrate and apply the service functions in DSS on the third-party system platforms



Third Party Integration-Data Synchronization

Supports synchronization of triggered events and records between two independent systems



*Bridge - Decoupling, Flexible, and Code-agnostic

A Bridge is a middleware between a DSS Professional and a third-party system that integrates two independent systems.

- ✓ Third-party systems can connect events to the DSS platform through the Bridge
- ✓ Authenticate and obtain resources from the third party
- ✓ Push the events of the third party to the DSS platform
- ✓ Deployed independently and runs independently, or it can be deployed on the same server as the DSS platform
- ✓ Configure Synthesis modules on the DSS platform
- ✓ Dahua development team is available to develop the Bridge or the third-party system can get the Bridge Development Guide to develop the Bridge
- ✓ **Materials:** Bridge Development [Note: NDA is necessary and contacts third party team to get it]

Record Synchronization

Manually or regularly synchronize data in the platform to a third-party database, such as attendance data. The third-party database can use this data to generate attendance report.

Database Type: Oracle, Mysql, SqlServer, PostgreSQL.

Business Type: Access Control, Attendance.

/05

Success Cases



Success Cases



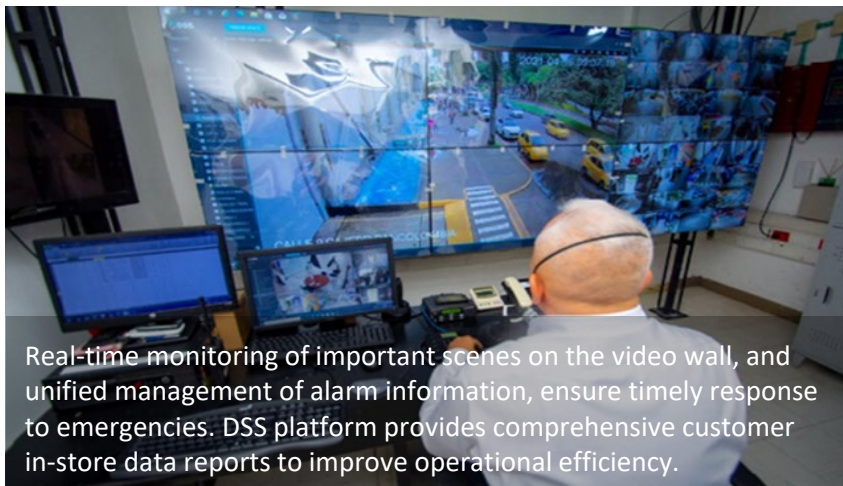
Centralized, visualized & multi systems linkage management, includes vehicle entrance & exit, visitor management, lift control, etc.

Malaysia Lemanjia Residential Project



Over 800 branches and an average of 16 cameras at each branch, the Centre can backup recording in case of data loss in the branch, receive an alarm when robbers or thefts happen in the ATM area, and timely took action on ATM vandalism and saved financial lost.

X Country Bank Project in Pakistan



Real-time monitoring of important scenes on the video wall, and unified management of alarm information, ensure timely response to emergencies. DSS platform provides comprehensive customer in-store data reports to improve operational efficiency.

Palmetto Plaza Mall Project in Colombia



Unified manage 1,800+ schools and 35,000+ front-end cameras, more Than 10 clients and 1000-channel D1 video on the video wall, realizing efficient regulation of college entrance examination behaviour.

X Country Ministry of Education Project



Thanks

ENABLING A SAFER SOCIETY AND SMARTER LIVING