Dahua Security Software 8.0

Application-Based / Scalable / Secure / Open

CONTENT

OUR PHILOSOPHY

Dahua has been committed to investment and improvement in VMS products to meet various applications. We are also willing to work and collaborate with our partners to provide more valuable functions and services.

Application-Based

Customer-oriented is our core in designing and developing DSS products to maximize the customer value based on actual application. We provide various DSS products for different application scenarios. The integration of video, access control, and AI features offers end users with one-stop solution that streamline daily operation.

DSS is a highly scalable and pay-as-you-go software that satisfies the increasing demands of our customers. The pay-as-you-go model is achieved through various methods such as licensing, distributed deployment, value-added modules, upgrades, as well as custom services.
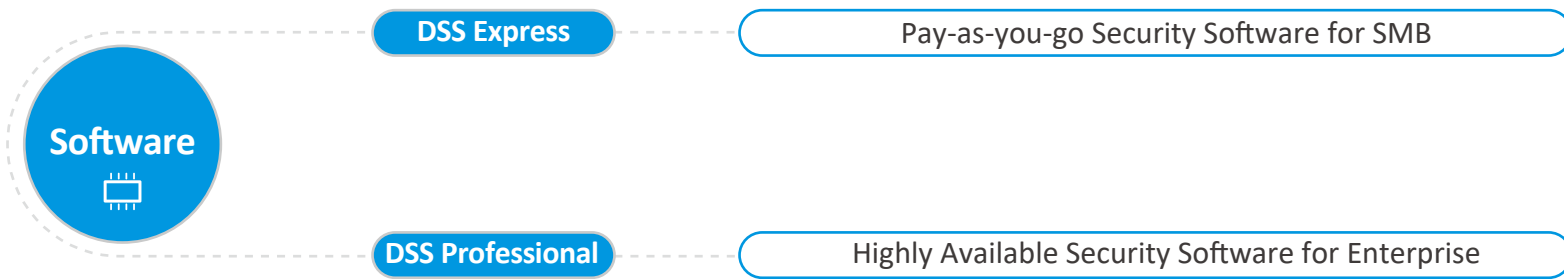
Scalable

Secure

The DSS security level adheres to its principle of "secure by design, development and verification", and lead by a dedicated and professional team. It complies with various international standards in application security, data security, network security and privacy security.

We are in continuous pursuit of cooperation with partners in order to provide users with more diversified products and services. With standard API/SDK/ONVIF interface, DSS has been integrated with multiple surveillance products and systems, which benefits the upgrading of the security industry and helps address various challenging demands.

Open

Software

DSS Express ----- Pay-as-you-go Security Software for SMB

DSS Professional ----- Highly Available Security Software for Enterprise

DSS Family

The DSS Professional and DSS Express are pure software-based systems. Their capacity and features can be flexibly adapted to different projects. DSS Express is generally tailored for small-sized applications, while DSS Professional is ideal for large and medium-sized applications.

DSS4004-S2 and DSS7016D-S2 are hardware-based series with Plug & Play which enables users to use the product with minimal initial configuration and management.

All-in-One

DSS4004-S2 — All-in-One Security Management Platform for SMB

DSS7016D-S2 — All-in-One Security Management Platform for Enterprise

DSS Express
Pay-as-you-go Security Software for SMB

DSS Express can be used with 64 cameras for free and supports up to 256 cameras with license. In addition, it is easy to integrate with access control, video intercoms and AI features such as facial recognition, automatic number plate recognition (ANPR), and video meta-data. DSS Express is suitable for retail stores, vehicle entrance management and office buildings.

Lower Investment
- Free for 64 cameras.
- Purchase other licenses on-demand.
- Low hardware performance requirements.

Pay-as-you-go
- With license, it is an easily scalable product with up to 256 cameras, 64 doors, and 256 video intercoms.

Easy Upgrade
- For more features and capacity, simply convert your license into DSS Pro version.
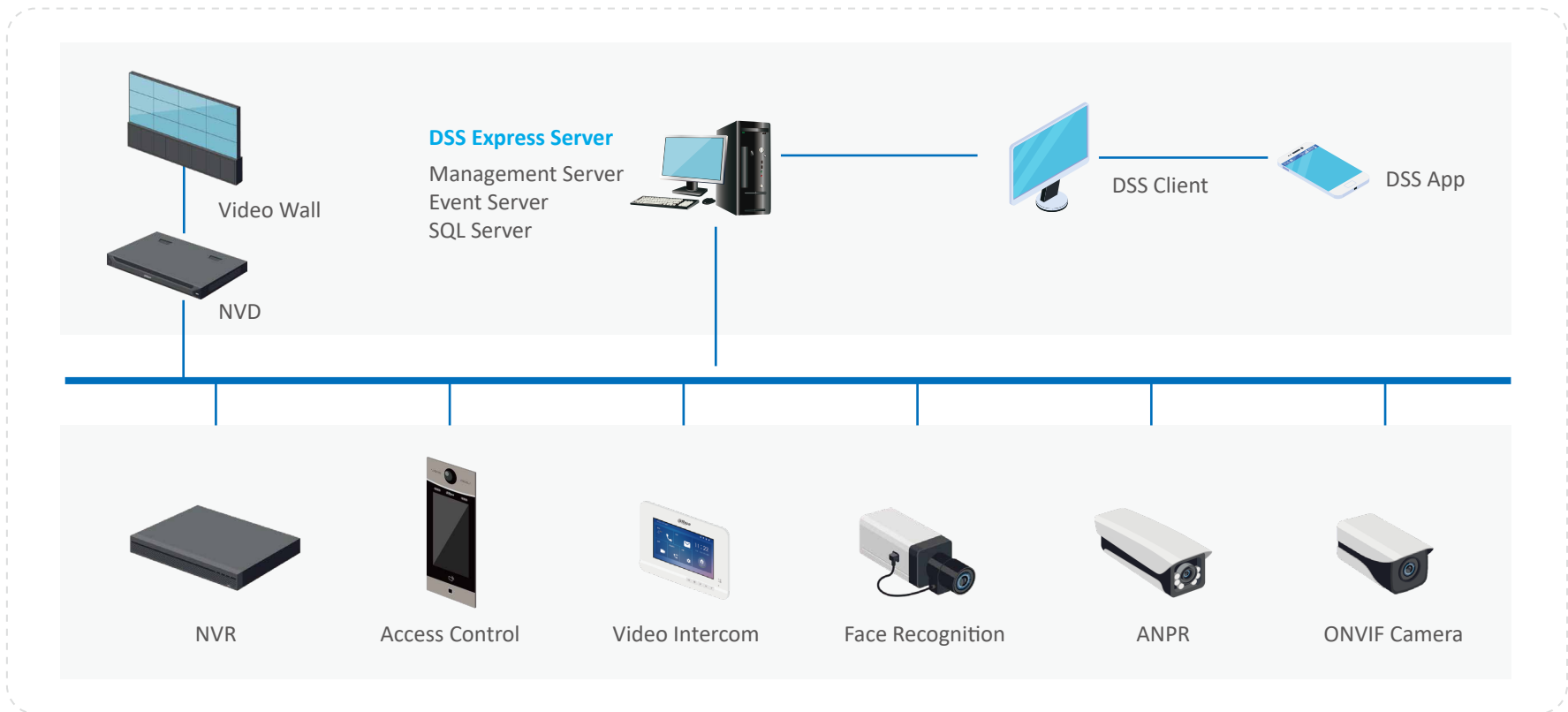
Unified Platform
- Integrates intelligent features such as video, access control, video intercoms, face recognition, and ANPR into the DSS Express, achieving one unified and easy to use solution.

Single Server Deployment & Simple System

The DSS Client and all DSS server components can run on the same server/PC with simple network architecture. It also offers API and SDK for third-party development and supports access to third-party standard ONVIF cameras.

Video Wall

NVD

DSS Express Server
Management Server
Event Server
SQL Server

DSS Client

DSS App

NVR   Access Control   Video Intercom   Face Recognition   ANPR   ONVIF Camera

DSS Professional
Highly Available Security Software for Enterprise

DSS Professional is a centralized management system designed for large-scale and industrial applications. It enhances hardware performance and provides centralized video monitoring, access control, video intercoms, alarm controller, POS, radar and AI features. Besides security application, DSS Professional has also been exploring possibilities in different industries, such as parks, chain stores, bank, oil & gas, logistics and so on.

Scalable
- It can be easily expanded to up to 20,000 channels and 2PB storage capacity through the distributed system.
- DSS Professional can be used as an upper-level platform to cascade and manage all DSS series products.

DeepXplore
- It is an AI-based search feature enabling intelligent retrieval of humans and vehicles in time and space.
- The archive can uniformly manage case-related events, pictures, and videos, and realize cross-event tracking.

High Availability
- Supports hot standby and N + M redundancy that enables the failover servers to serve as backup to primary recording and event servers.
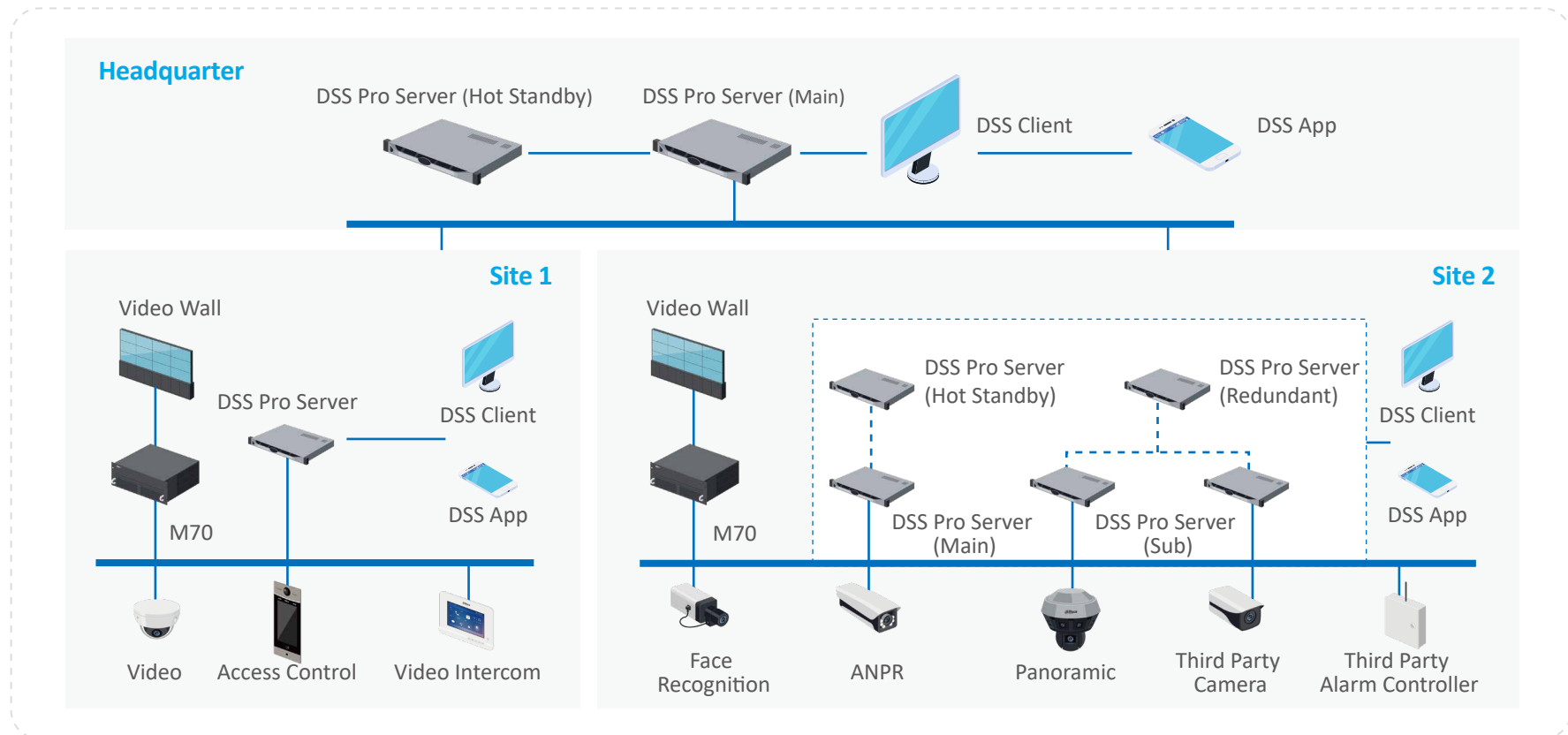
Customizable
- Allows integration of other systems and devices via API/SDK/ONVIF.
- Meets customers' personalized needs and assists them in formulating their market competitive advantage.

High Availability & Powerful System

- Allows expansion of system performance through distributed deployment for a single site and cascading deployment for multiple sites.
- Supports hot standby and N + M redundancy.
- NVD and Matrix devices can be integrated for the video wall.

Headquarter

DSS Pro Server (Hot Standby)   DSS Pro Server (Main)   DSS Client   DSS App

Site 1

Video Wall

DSS Pro Server   DSS Client

M70   DSS App

Video   Access Control   Video Intercom

Site 2

Video Wall

DSS Pro Server (Hot Standby)   DSS Pro Server (Redundant)   DSS Client

DSS Pro Server (Main)   DSS Pro Server (Sub)   DSS App

M70

Face Recognition   ANPR   Panoramic   Third Party Camera   Third Party Alarm Controller

DSS4004-S2

All-in-One Security Management Platform for SMB

DSS4004-S2 is a Plug & Play security management platform based on Linux OS and pre-installed DSS software. It provides higher performance in the low-end and mid-end market, offering a reasonably low price for a highly efficient and carefully designed system.

Easy to Use
• All-in-One, Plug & Play.

Cost-effective
• One-time payment for hardware and whole software capacity.
• Lower price per channel.

High Capacity
• Up to 256 cameras, 64 doors, 1,000 video intercoms and 100TB storage capacity per server.

Stable and Reliable
• Linux OS based design with high efficiency and reliability.
• Less maintenance investment.

All-in-One, Simple System

• Performs unified management of video, access control, video intercoms, alarm controller, ANPR camera and face recognition camera through one DSS4004-S2.
• Users need to separately install DSS Client on a PC to access the system.
• NVD and Matrix devices can be integrated for video wall.
• Offers API/SDK for third-party development.

Video Wall   NVD

DSS4004-S2   DSS Client   DSS App

Video   Access Control   Video Intercom   Face Recognition   ANPR   ONVIF Camera
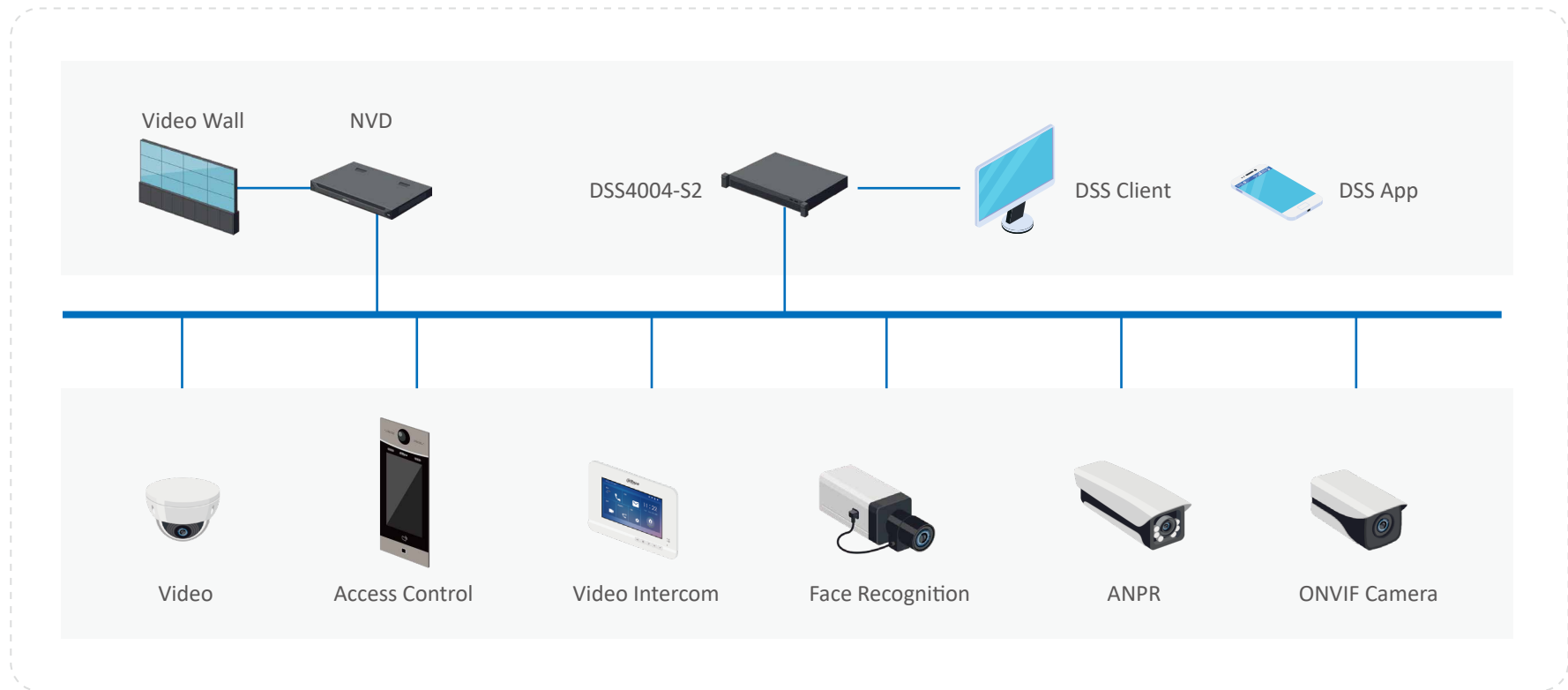
DSS7016D-S2
DSS7016DR-S2
All-in-One Security Management Platform for Enterprise

DSS7016D-S2 is a high-performance security management platform based on Linux OS and pre-installed DSS software, offering outstanding performance and excellent reliability. It is ideal for medium and large scenes, such as residential areas and casinos.

Easy to Use
• All-in-One, Plug & Play.

Powerful
• Up to 1,000 channels per server.
• Up to 5,000 channels via distributed deployment.
• Up to 2,000 video intercoms per server.

High Storage Performance
• 15 built-in storage disk interface.
• Up to 200TB per server, maximum 1PB through distributed deployment.
• Up to 600Mbps storage bandwidth.

Stable and Reliable
• Hot standby system design.
• Dahua's unique N+M redundancy mode.
• Redundant power design of DSS7016DR-S2 makes the system more stable.

Centralized & Single-site Management

• Single-site deployment.
• System performance can be expanded through distributed deployment.
• Supports hot standby and N + M redundancy.
• Users need to separately install DSS Client on a PC to access the system.
• NVD and Matrix devices can be integrated for video wall.
• Offers API/SDK for third-party development.

Video Wall   M70   DSS7016D-S2 (Hot Standby)   DSS7016D-S2 (Redundant)   DSS Client

DSS App

DSS7016D-S2 (Main)   DSS7016D-S2 (Sub)

Video   Access Control   Video Intercom   Face Recognition   ANPR   ONVIF Camera
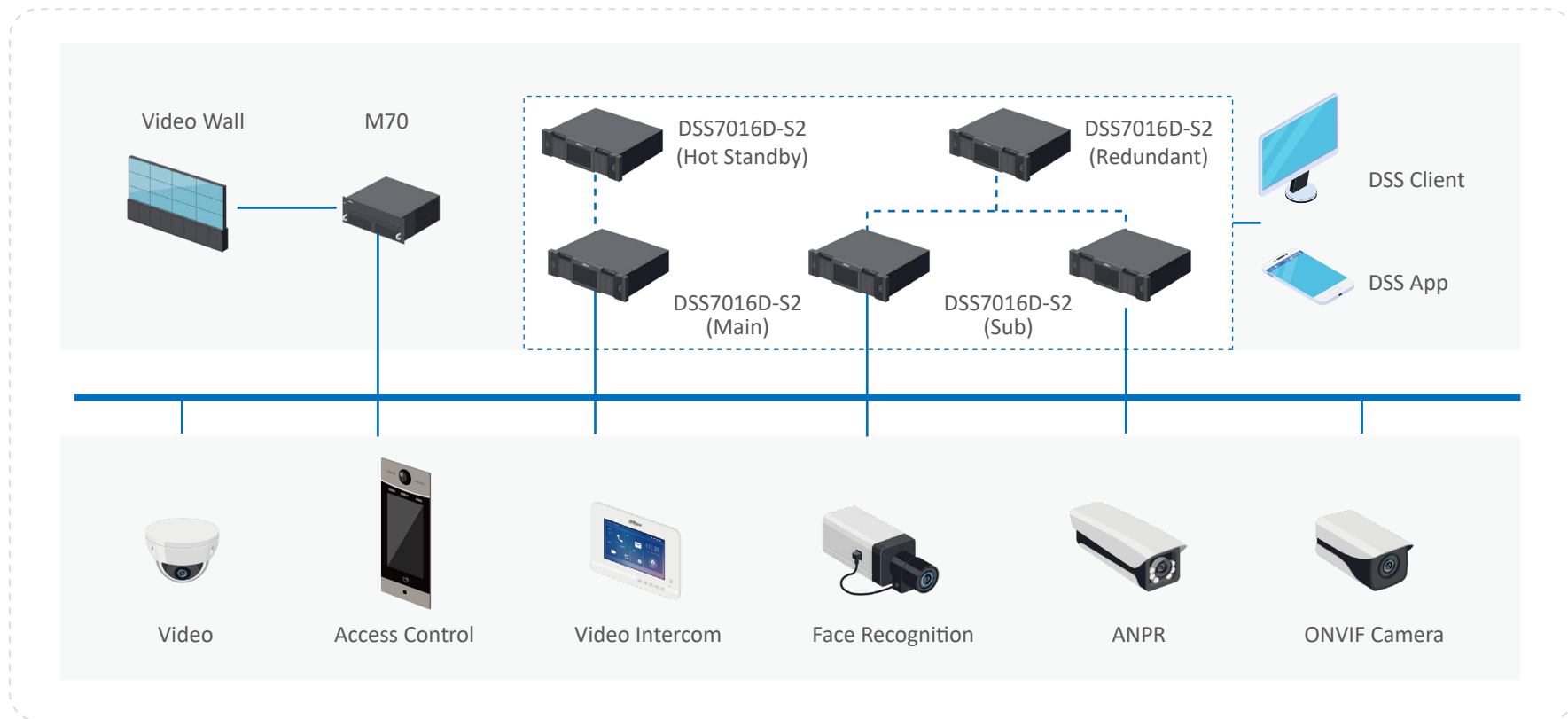
UPDATES IN DAHUA SECURITY SOFTWARE (DSS) 8

The Dahua Security Software (DSS) 8 is our latest and most secure version of VMS product.
This version has a brand new UI and UE, which greatly improves user experience.
Through its application-based design concept, it offers unified management of 6 major business scenarios ("3+2+1" scheme) to meet and satisfy customers' needs.
It includes 3 major security applications, 2 major object management and 1 major maintenance management.
It also further strengthens the performance and security of the system, and enhances its competitiveness.

New User Friendly UI/UE

We have redesigned and decluttered the DSS 8 interface making it more responsive, colorful and simple.
The system can be managed and operated by one single PC client through the fine-tuned authority management to control the user's different operation range, maximize the user's ease of use, and reduce the training cost.

DSS 8 is designed based on the actual business application. We call it "3+2+1 application-based design". They are three security application management modules, two target object (people and vehicles) management modules, and one system operation and maintenance management module.
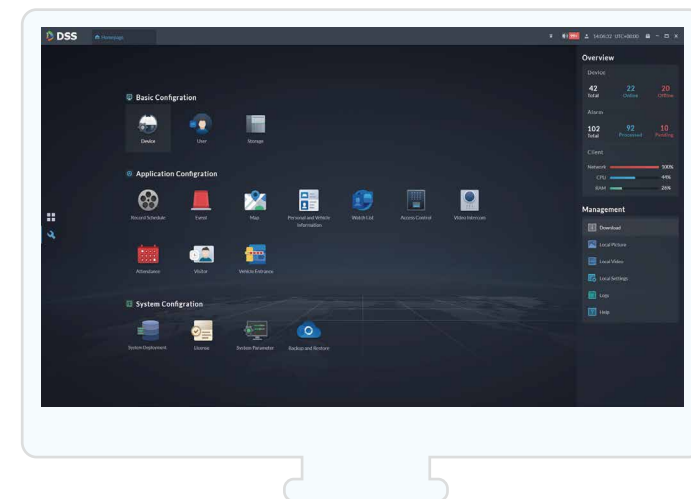
3+2+1

3: Security application management modules

2: Target object (people and vehicles) management modules

1: System operation and maintenance management module

Monitoring Center

Small Monitor Center

- For small monitoring centers, the DSS PC client can provide multi-screen output and more multidimensional surveillance.

- 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.

Face Recognition   Maps   Event Monitor

Access Control   Web Pages   ANPR
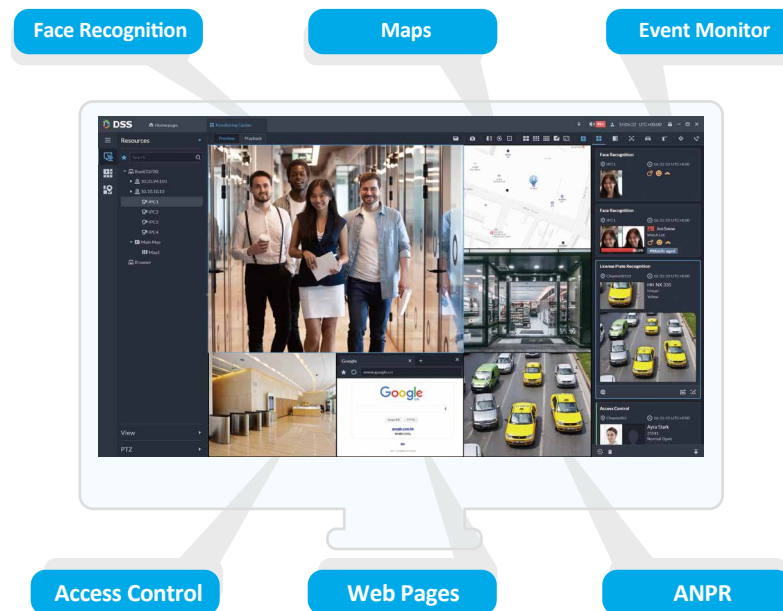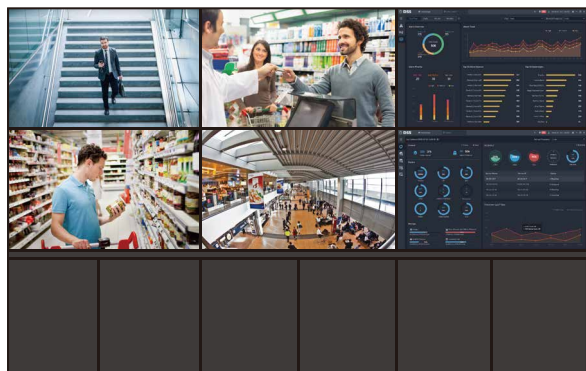
Video Wall

- For medium and large monitoring centers, combined with decoding/matrix equipment, the DSS can uniformly manage and control the video wall.

- By outputting the signal of PC with installed DSS client, the operation and maintenance status of the system can be easily checked on the video wall.

- Supports adding video wall tasks to the video wall to realize manual switching, and adding video wall plans to realize automatic switching.

- Supports USB-connected or network-connected keyboard to control the live view, play back and video wall of the DSS client.

Event Center

Event Statistics

- 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 situation, priority, time, and processor, users can utilize alarm history query and analyze events.
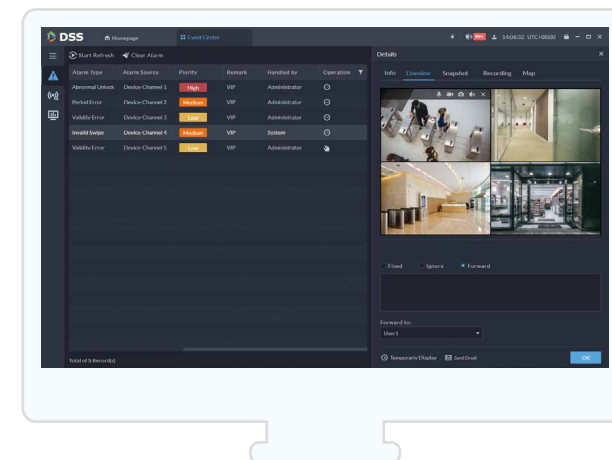
DeepXplore

DeepXPlore implements intelligent search of human and vehicle targets in time. It not only enables you to quickly find the information that you need according to the characteristics of people and vehicles in the scene, but also from the trajectory based on time and location of the target. This feature enables quick searching of relevant events and suspects, allowing security personnel to facilitate further investigation and promoting proactive security measures.

Quick Search Entry

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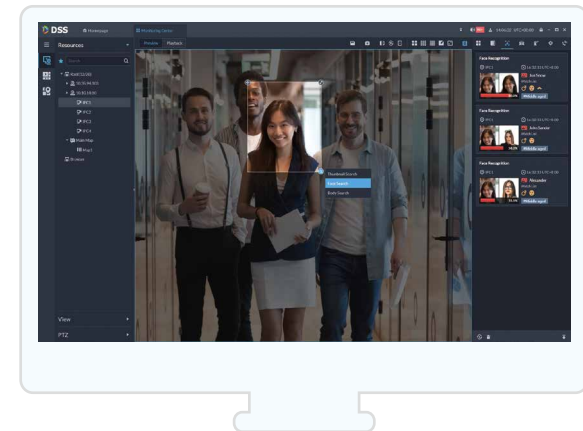
Integrated Search

- Achieves intelligent searching of human and vehicle targets based on time and location.
- Allows archiving of people and vehicle's entry and exit records, capturing images of people, saving driving records of vehicles, etc.
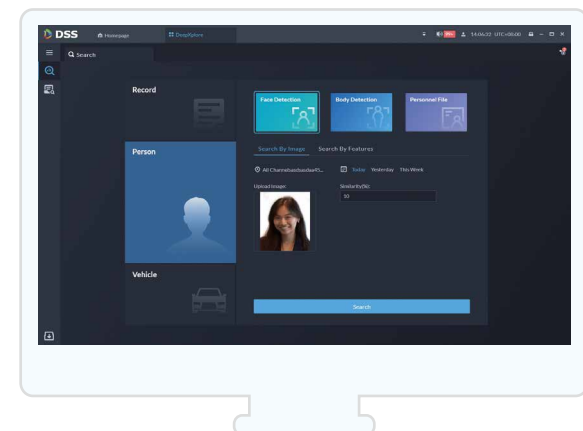
Activity Tracking

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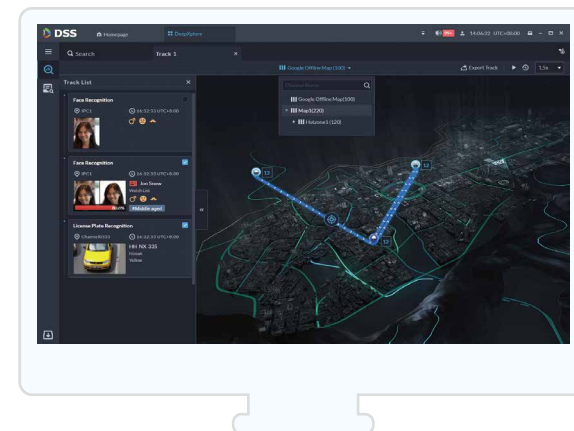
Case Archive and Report

- A case library can be created in a unified manner to manage case-related events, pictures, videos, documents, etc.
- Generate and export system reports, including basic information, videos, pictures, and updated records.
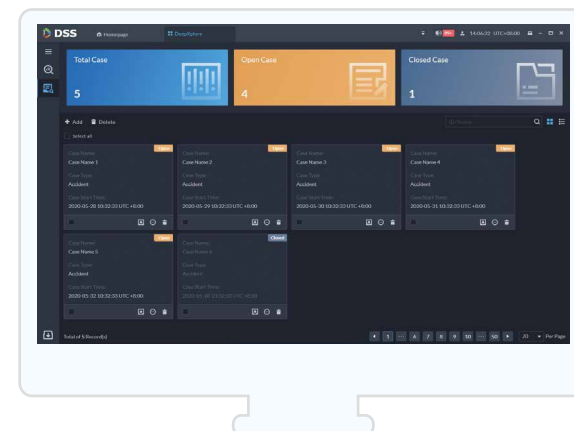
Maintenance Center

Overview

- Displays the overall situation of equipment, channels, storage, servers and faults, utilizes different colors to distinguish different status, and detects abnormalities intuitively and quickly.
- Shows the failure related trends in the past 7 days and provide timely warnings.

Resource Status

- Independently displays the operation and maintenance status of equipment, channels, services and faults, including online, offline, video quality, etc.
- Search historical faults of equipment and services.

Automatically Send Reports

- Supports custom sending of report templates, including sending time, period, subject, data content, and recipients.
- Administrators can make decisions through relevant reports.

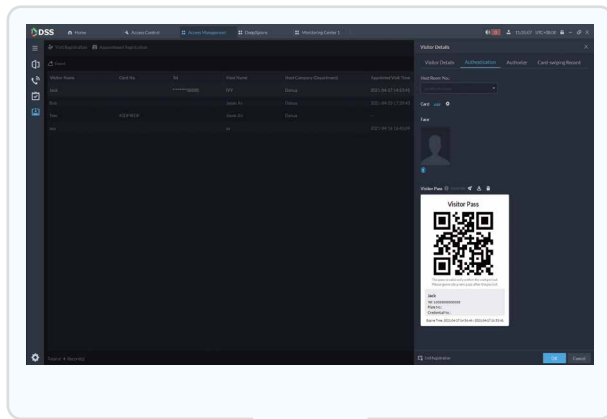# Convenient and Efficient Access Management

Manage the entry and exit of people in residential areas, parks and other scenes to improve automation and intelligence. It includes access control management, video intercoms, visitor management, and attendance management, realizing a multi-dimensional people management system.
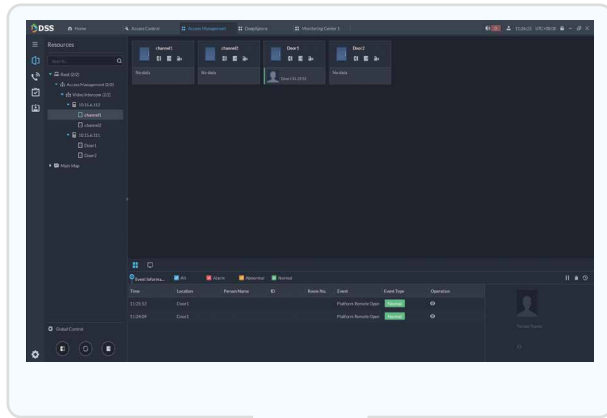
Access Control
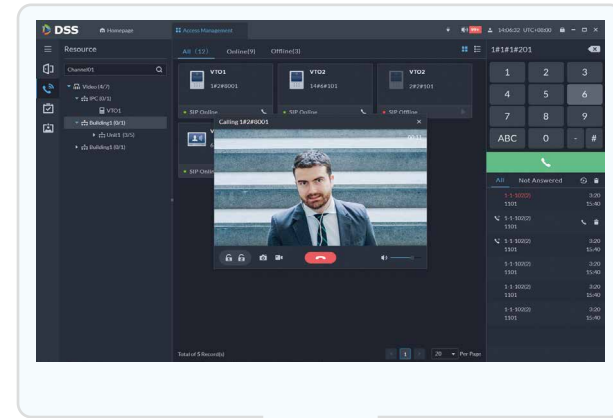
Video Intercoms

Visitor Management
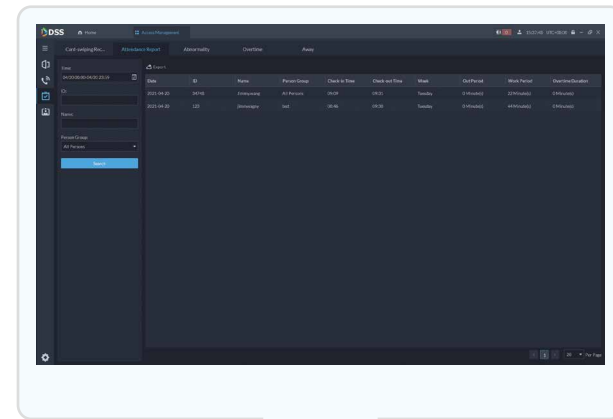
Attendance Management

Vehicle Entrance & Exit Management

Adopts advanced ANPR technology and integrates VTO into a well coordinated vehicle management system, enabling a safe and efficient vehicle entrance and exit.

- Record and search the history list of entering and exiting vehicles.
- **Comprehensive Surveillance:** It offers real-time video preview and playback, allows modification of plate info if it's incorrect, and helps security personnel to quickly respond when an incident happens.

- **Smart Search:** It allows searching of videos and images by date, time and license plate number to locate evidences efficiently.

- **Intercom Handling:** Users can respond to visitors or emergency calls through the VTO, ensuring safety even without on-site watch house.

- **Multiple Linkage:** The administrator can set different linkage rules following the ANPR such as opening the barrier gate or sending an e-mail when a number plate has been recognized.

- **Flexible Visitor Management:** It offers flexible rules for barrier management. It allows automatic access for those in the allowlist, or manual opening of barrier gate via the software platform.
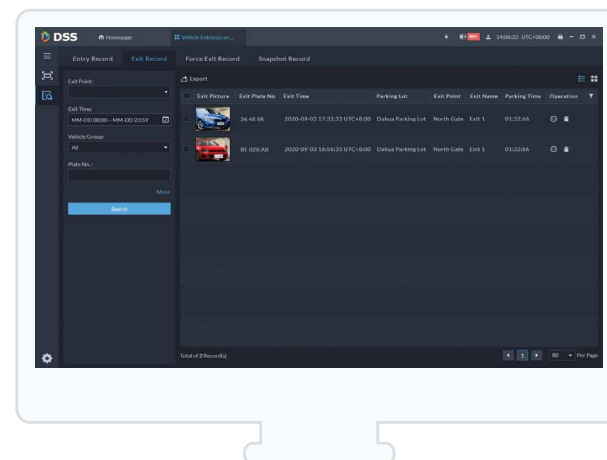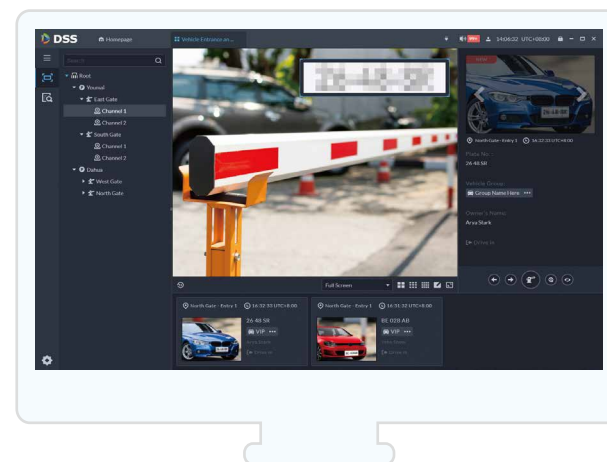
High Scalability

All DSS products use the same architecture and design.

- Unified user interface reduces additional training costs.
- Using C/S architecture, all operations can be completed in the DSS PC client.
- The DSS Express can be upgraded to DSS Pro depending on business needs.
- In case of multi-site management, different DSS products can be deployed at sub site and DSS Pro can be installed in the headquarters, realizing centralized real-time preview and playback.

DSS Professional

DSS4004-S2

One Architecture

DSS Express

DSS7016D-S2

Phase 2 Headquarters — DSS Pro

Phase 1 Site 1 — DSS7016D-S2
- NVR — IPC
- Access Control

Phase 2 Site 2 — DSS Pro
- NVR — IPC
- IVSS — Face Recognition

Phase 3 Site 3 — DSS4004-S2
- NVR — IPC
- Access Control
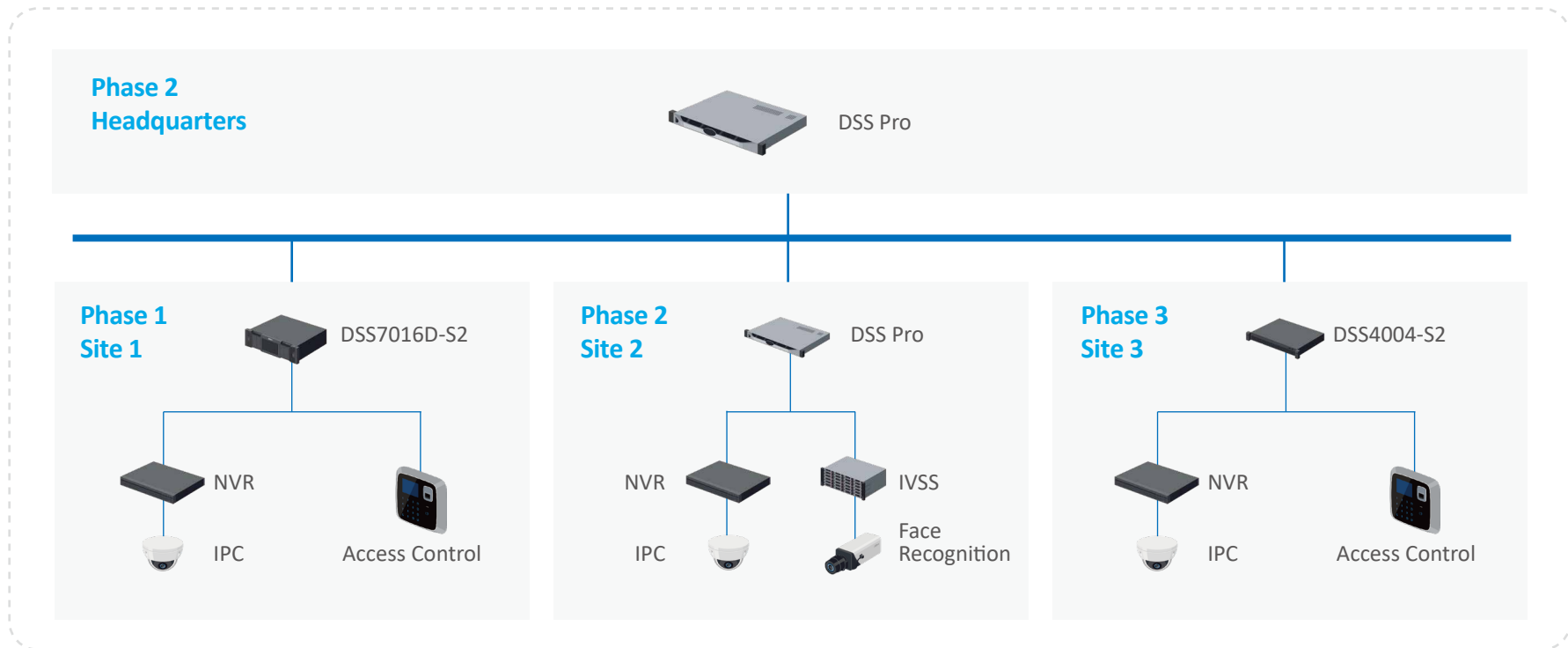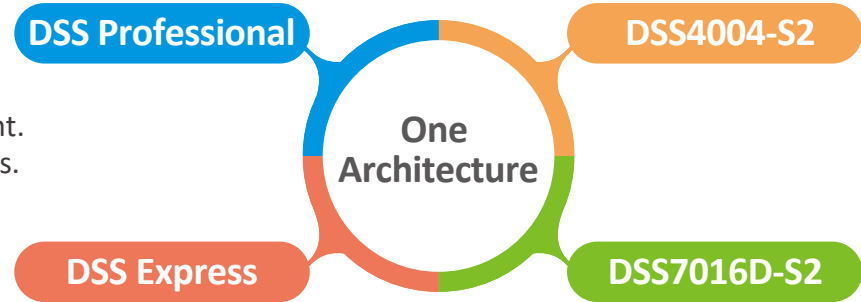
* All DSS products are limited to version 8

Wide Compatibility

Higher Performance

This new system includes upgraded architecture and System Management Center (SMC) service clustered for higher concurrency.

- **Device access:** DSS Pro supports 10,000 devices and 20,000 channels, regardless of access method (IP or auto registration).
- **Event concurrency:** Up to 600 concurrency events per second.
- **Number of event records:** Up to 20 million.

Device access
10,000 Devices
20,000 Channels

Event concurrency
600/s

Number of event records
20 Million
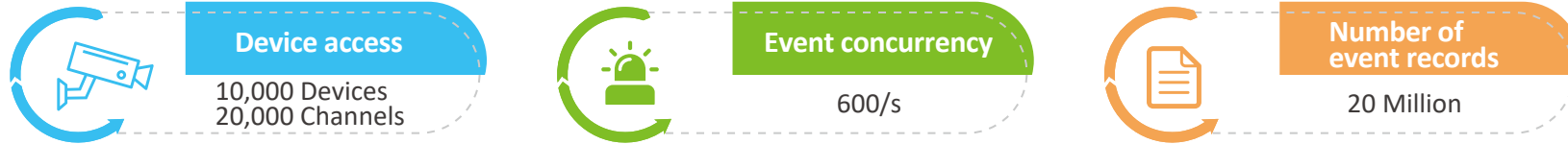
Multiple Time Zone Application

Our system can normally operate in different time zones and countries, and does not influence user experience.

PST — DSS Client
CST — DSS Client
EST — DSS App

CST — DSS Pro Server

MST — NVR   IPC
EST — NVR   IPC
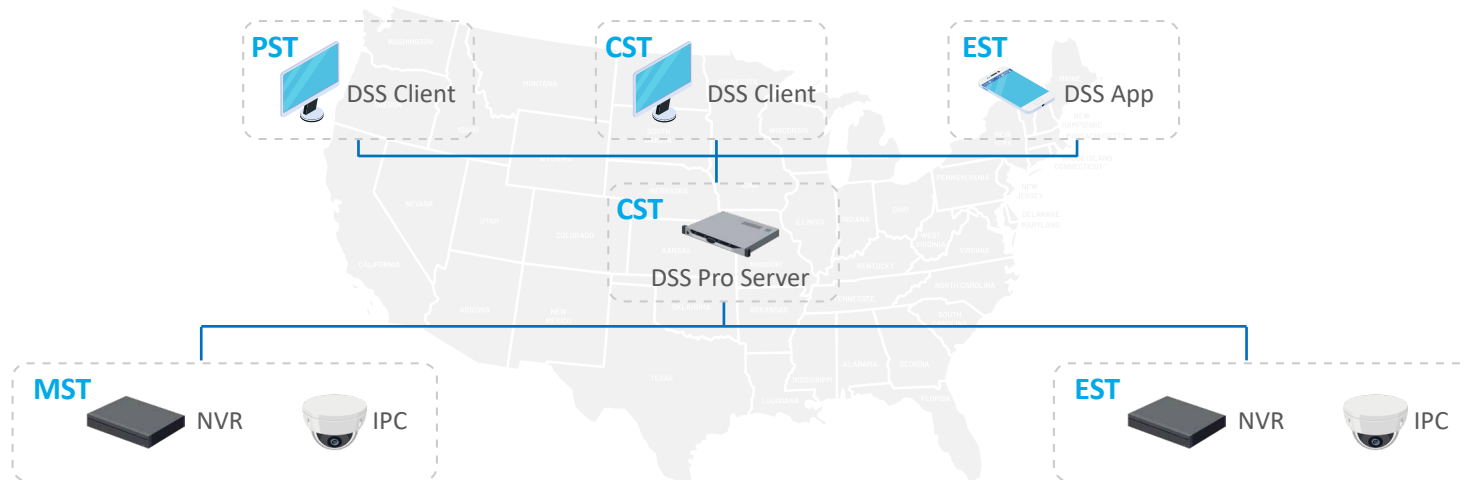
Secure

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

Application Security

- Control users access based on their access permission.
- Synchronously backup important system logs to the log server.

Privacy Security

- Decentralizes and minimizes data.
- Desensitizes private information.
- Face mosaic technology.

Network Security

- Utilizes RASP or WAF to prevent web attacks.
- When system detects network attacks, users will receive notification by email, mobile phone, etc.
- Supports CA certificate.

Data Security

- Secure encryption on network transmission, storage, download, and export.
- The storage duration of each video channel can be configured.

Open

By offering API/SDK, DSS can be easily integrated with other innovative systems.

Dahua

| Resource | Video Record | Access Control |
| Alarm | AI | Attendance |

API / SDK

Third-Party System

Client

Web

DSS supports access of third-party devices through standard ONVIF protocol.

DSS Pro can be customized to integrate third-party alarm devices.

DSS

ONVIF Camera

Alarm Controller
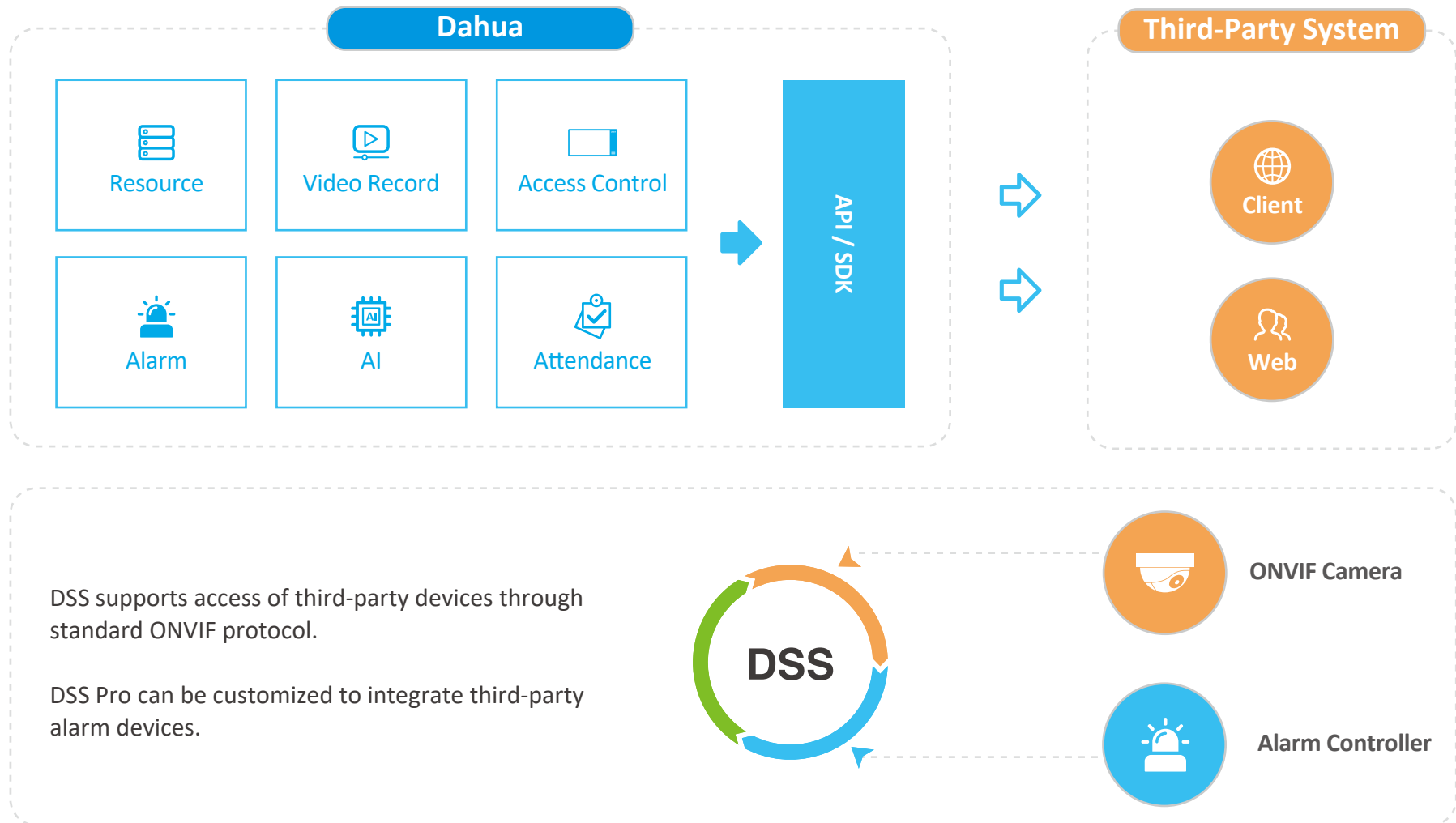
Success Cases
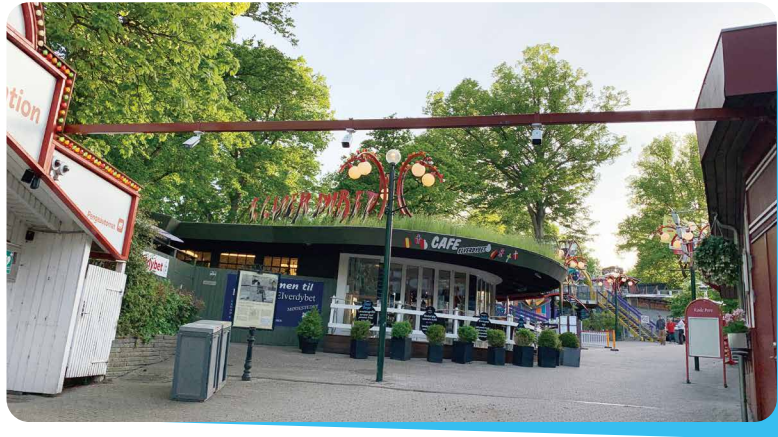
Bakken, the World's Oldest Amusement Park, Deploys Dahua PCFC Solution for Reopening.

Upgraded BI-City Tokyo with Dahua Smart Residential Solution.

Dahua AI Helps Haier Create Intelligent Industrial Park in Russia.

Jadara University Implements AI-enabled Dahua Smart Education Solution.

Features	DSS Express[①] (Free Version)	DSS Express[①] (License Version)	DSS Professional[②]	DSS4004-S2	DSS7016D-S2 DSS7016DR-S2
Deployment					
OS	Windows[③]	Windows[③]	Windows[③]	Linux	Linux
Form	Software	Software	Software	All-in-One	All-in-One
Type of Deployment	Single-server	Single-server	Distribute and Cascade	Single-server	Distribute
Hot Standby	--	--	√	--	√
Number of Sub Servers Per System	--	--	10	--	5
N+M	--	--	√	--	√
Performance					
Number of Camera Per Server	64 IP, 64 Channels	256 IP, 256 Channels	1,000 IP, 2,000 Channels	256 IP,256 Channels	500 IP, 1,000 Channels
Number of Doors Per Server	--	64 IP, 64 Doors	500 IP, 1,000 Doors	64 IP, 64 Doors	200 IP, 500 Doors
Number of VDP Per Server	--	256	2,000	1,000	2,000
Number of ANPR Per Server	8 (4 for entrance)	8 (4 for entrance)	500 (60 for entrance)	32 (6 for entrance)	100 (16 for entrance)
Number of FR Per Server	8	8	500	32	100
User	50	50	2,500	50	200
Number of Online Users	10	10	200	10	50
Microsoft Active Directory	--	--	√	--	√
Video Input or Output Per Server	200Mbps[④]	200Mbps[④]	600Mbps[④]	350Mbps	600Mbps
Video Storage Bandwidth Per Server	100Mbps[⑤]	100Mbps[⑤]	600Mbps[⑥]	150Mbps	600Mbps
Maximum Capacity Per Storage Server (IPSAN)	--	--	200TB	100TB	200TB
Device					
Camera (ANPR, FR, Counting Camera, Thermal)	√	√	√	√	√
Third-party Cameras (ONVIF)	8	√	√	√	√
Access Control	--	√	√	√	√
Video Intercoms	--	√	√	√	√
Alarm Controller	--	√	√	√	√
POS	--	--	√	--	--
Radar	--	--	√	--	--

Features	DSS Express (Free Version)	DSS Express (License Version)	DSS Professional	DSS4004-S2	DSS7016D-S2 DSS7016DR-S2
Applications					
Monitor Center	√	√	√	√	√
Live View	√	√	√	√	√
Record Playback	√	√	√	√	√
Video Wall	--	√ (Only NVD)	√	√	√
Emap (PNG, JPG, and JPEG)	√	√	√	√	√
Google Map	--	--	√	--	√
Event Center	√	√	√	√	√
DeepXplore	√	√	√	√	√
Track Generation	--	--	√	--	√
Case Bank	--	--	√	--	--
Maintenance Center	--	--	√	--	√
Personnel and Vehicle Management	--	√	√	√	√
Access Control Management	--	√	√	√	√
First card unlock, Multiple card unlock, Inter-lock, Anti-passback, Remote Verification	--	--	√	--	√
Visitor Management	--	√	√	√	√
Visitor Appointment Registration	--	--	√	--	√
Video Intercoms Management	--	√	√	√	√
Add-ons					
Vehicle Entrance Management	--	√	√	√	√
Attendance Management	--	--	√	--	--

①The DSS Express performance requires Intel® Core™ i7-9700K or higher.

②The DSS Professional performance requires Intel® Xeon Silver 4114 or higher.

③HDD for OS: Enterprise-class HDD or high performance network HDD.

④NIC: GbE Network Interface Card

⑤Local HDD for Storage: Surveillance-class HDD or high performance network HDD.

⑥IPSAN Storage.

* For more detailed parameters, please refer to the relevant datasheet.

ENABLING A SAFER SOCIETY
AND SMARTER LIVING

Dahua USA
Tel: +1 (949) 679-7777
Email: sales.usa@dahuatech.com
　　　support.usa@dahuatech.com

Dahua Mexico
Tel: +52 55 67231936
Email: sales.mx@dahuatech.com
　　　support.mx@dahuatech.com

Dahua Colombia
Tel: +571 7446110
Email: sales.co@dahuatech.com
　　　support.co@dahuatech.com

Dahua Brazil
Tel: +55 11 32511871
Vendas: comercial.br@dahuatech.com
Suporte Técnico: suporte.br@dahuatech.com

Dahua Perú
Tel: +511 500-8555
Email: sales.pe@dahuatech.com
　　　support.pe@dahuatech.com

Dahua Chile
Tel: +56 232705421
Email: sales.cl@dahuatech.com
　　　support.chile@dahuatech.com

Dahua Argentina
Email: project.ar@dahuatech.com

Dahua Panama
Email: sales.pa@dahuatech.com
Support: support.pa@dahuatech.com

Dahua Thailand
Tel: +66 2541 5188
Email: info.th@dahuatech.com
　　　hr.th@dahuatech.com

Dahua Singapore
Tel: +65 65380952
Email: sales.sg@dahuatech.com

Dahua Turkey
Email: sales.tr@dahuatech.com
　　　support.tr@dahuatech.com

Dahua Malaysia
Tel: +60376620731
Email: sales.my@dahuatech.com

Dahua Indonesia
Tel: +62 811 867 7728
Email: sales.indo@dahuatech.com

Dahua S.Korea
Tel: +82 7081618889
Email: sales.kr@dahuatech.com
　　　support.kr@dahuatech.com

Dahua India
Tel: +91 1244569100
Email: sales.india@dahuatech.com

Dahua Russia
Tel: 8 (499) 682-60-00
Email: info@dahuatech.com

Dahua Kazakhstan
Tel: +7 727 3110838
Email: sales.kz@dahuatech.com

Dahua VISION LLC
Tel:+998 (78) 1488666
E-mail:dh_uzbekistan@dahuatech.com

Dahua UK
Tel: +44(0)1628 613 500
Email: sales.uk@dahuatech.com

Dahua the Netherlands
Tel: +31 (0) 79 799 96 96
Email: sales.benelux@dahuatech.com

Dahua Iberia
Tel: +34 917649862
Email: sales.iberia@dahuatech.com

Dahua Italy
Tel: +39 362182681
Email: sales.italy@dahuatech.com

Dahua Germany
Tel: +49 211 20544121
Email: sales.de@dahuatech.com

Dahua France
+33 1 48 53 70 53
Email: sales.france@dahuatech.com

Dahua CEE & Nordic
Tel: +48 223957400
Email: dh.cen@dahuatech.com

Dahua Poland
Tel: +48 223957400
Email: biuro.pl@dahuatech.com

Dahua SRB
+38 1 (11) 4429999
Email: dh.srb@dahuatech.com

Dahua Denmark
Email: Nordic.ne@dahuatech.com

Dahua Hungary
Tel: +36 17899852
Email: sales.hu@dahuatech.com

Dahua Bulgaria
Tel: +35929950013
Email: support.bg@dahuatech.com

Dahua SRL
Email:marketing.ro@dahuatech.com

Dahua Czech
Tel: +420 225 986 001
Email: admin.cz@dahuatech.com

Dahua S. Africa
Email: sales.za@dahuatech.com

Dahua Australia
Tel: +61 299285200
Email: sales.oc@dahuatech.com

Dahua Middle East
Tel: +971 48815300
Email: sales.me@dahuatech.com
　　　info.me@dahuatech.com

DAHUA TECHNOLOGY
No.1199 Bin'an Road, Binjiang District, Hangzhou, China. 310053
Tel: +86-571-87688883　Fax: +86-571-87688815
Email: overseas@dahuatech.com
www.dahuasecurity.com