

# DSS Professional

Highly Available Security System for Enterprises

A person is shown from the side, sitting at a desk in a dimly lit room. They are talking on a mobile phone held to their ear with their right hand. In front of them are two computer monitors. The monitor on the left displays a complex interface with various panels and data. The monitor on the right displays a grid of seven colored squares (blue, red, teal, purple, green, etc.) each containing a different icon or image. The person's left hand is visible at the bottom of the frame, resting on the desk.

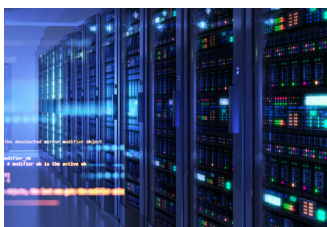
V8.6.0

## ■ Introduction

Dahua Security System (DSS) Professional is designed for centralized security management. Relying on powerful hardware performance, it provides centralized video monitoring, access control, video intercom, alarm management, and POS records search. Also, it can help you improve your security management efficiency with the help of artificial intelligence technologies such as face recognition, license plate recognition, and video metadata.

Whether you are a small business with a few cameras, or a global business with over 20,000 cameras, DSS Professional is the right solution for you. Even if your needs change in the future, you can easily scale, upgrade or add functionalities to DSS Professional so that your needs are met. Build your security management system on a solid foundation with DSS Professional.

## ■ Features



### ***Scalable Design, Easy to Grow***

With distributed deployment, you can easily expand the supported channels to 20,000 and central storage capacity to 4 PB. The multi-site function allows you to incorporate multiple DSS platforms into one, and conveniently show their information on one PC client. You can access live and recorded videos, real-time and historical events, and more.



### ***AI-Powered Applications, Proactive Security***

DSS Professional integrates various AI capabilities that devices have, such as face recognition, automatic number plate recognition, and video metadata. You will be notified immediately when the target you are interested in appears, allowing you or security personnel to take necessary security measures.



### ***Highly Available Technology, More Stable***

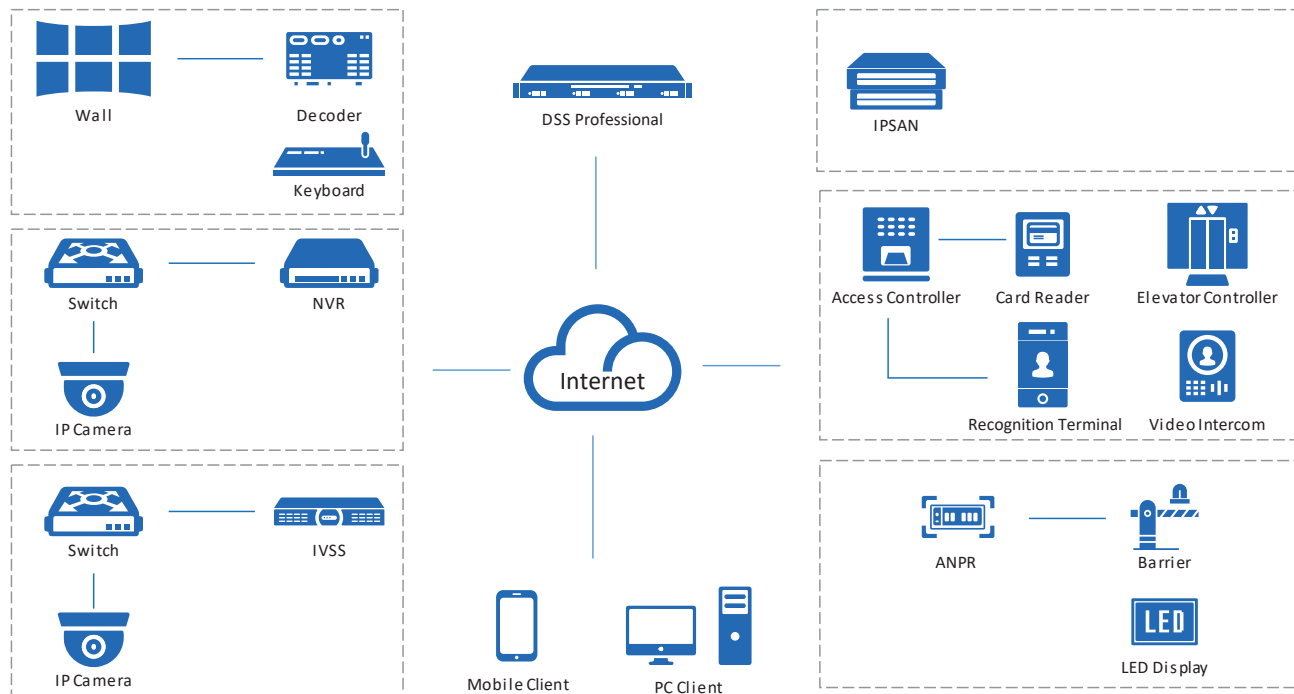
With hot standby and N+M redundancy, DSS Professional ensures that your business will not be interrupted by failed servers.



### ***Customized Services, Enhanced Competitiveness***

We offer services for you to build DSS Professional into your own platform, allowing it to fully suit your needs and give you a competitive edge in the market.

## ■ System Architecture



## ■ Main Functions

### **Monitoring Center**

#### ◆ **Live View**

With its ease to use live view, you can both customize and control how you view videos in real time. The layout can also be configured to display videos in different sizes, enabling you to give priority to important areas by placing them in larger windows. You can also remotely control certain devices to perform various actions such as talking to people through the camera, and unlocking the barrier of a turnstile to grant access to people. The visual tracking function allows you to follow a target across different areas or locations, without losing sight of the target, as long as the places that the target passes through are covered by the associated cameras. If an emergency occurs, manual recording is just a click away, so that you can quickly save that particular part of the video for evidence.

#### ◆ **Playback**

The playback function allows you to play recorded videos stored on the server and devices in multiple windows. To help you efficiently wade through tons of videos, you can play them 64X faster than the normal speed to skip parts that you are not interested in, slow them down to 1/64X to focus on important sections, or play the previous or next video clip of the most recent time to track the event easily. To control the data in the videos, you can add tags to mark relevant content, and you can even lock them to prevent them from being overwritten when the disk space is full. The filter function can also be very helpful when you only need to deal with a specific type of video, or a type of target that appeared in one or more areas.

#### ◆ **Video Wall**

Video wall is used to display videos on a large screen that consists of many smaller screens. Highly customizable, you can not only configure the layout of the video wall, but you can also display recorded videos and real-time videos to zero in on important details in the video. With the task function, you can schedule videos from different channels to be displayed on the video wall at specified times or in a loop.

### ◆ **Map**

The map is a very useful function that allows you to keep track of devices and events through their location information. With it, you can mark a device and immediately know the location of an event when the device triggers an alarm and flashes red on the map. You can also add submaps to different areas. For example, a plan view of a public square can be added to a map to reveal the exact location of people who are inside the public square.

### ◆ **Group Talk**

The real-time location of MPT devices are shown on the map, making it easy for dispatchers to effectively send officers and resources to address issues such as a burglar or duress alarm going off in a building. Dispatchers can start a group talk and engage in a real-time conversation with the officers who were assigned the task to efficiently guide them through the process.

### ◆ **AR**

Empowered by AI overlay and effortless target tracking, the AR function helps elevate your monitoring capabilities by not only providing panoramic view, but simplifying the task of tagging targets on the video image based on our user-friendly tag templates. You can experience unmatched convenience of efficiently categorizing surveillance targets, including critical locations like hospitals and road junctions, and also customize your preferences, such as marking tags as favorites or prioritizing them, to take control of your monitoring system.

## **DeepXplore**

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Powered by AI technology, you can easily search for targets, look for records on them and even generate tracks on their movement to observe their whereabouts through setting simple search conditions. To gain an overview on the target, you can organize information on them into a case and generate a report.

## **Event Management**

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You can monitor and process over 200 types of alarms right from the event center, while it continuously generates statistics. To give you a clear picture of what is happening in your area, the alarm center also displays a variety of useful information such as the number of alarms that were processed, and the type of alarms that are triggered most frequently. Highly flexible, you also have a selection of predefined alarm types available to you, and the option to not only create your own alarm, but to also manually trigger it to take snapshots and send emails for important events.

## **Maintenance Center**

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By just visiting one page, you can stay up to date with information on alerts, devices, servers and more to instantly recognize issues such as offline devices and abnormal servers. In the maintenance center, switches can also be conveniently configured and details, such as their network topology, can also be viewed. Scheduled reports are also sent based on the information collected to give you a full picture of how your system is running. Updating is also a breeze, as you can easily update multiple devices in batches when new versions are available.

## **Access Management**

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### ◆ **Access Control**

Doors and lifts in different zones can all be effectively controlled for added security. A zone-based management model is used, which maintains maps for each zone to make it easy for you to locate access points. Through the use of access rules, you can quickly grant and deny access to people with great efficiency, strengthening the security of each zone. From the access panel, you can also view and control the channels of doors and lifts at the same time across different zones to manage access.

### ◆ **Video Intercom**

All video intercom devices can be managed directly through one easy-to-use interface that offers two-way communication and remote access control. Through the interface, you can secure access to your premises, and receive calls and emergency reports directly from people on-site. Building management is also very convenient, as you can send group notices to all the indoor monitors, keeping people informed of important events, such as scheduled power outages.

### ◆ **Visitor**

DSS Professional offers a complete process to manage visitors, including appointment, registration, access permission authorization, and ending visit with all permissions canceled. A complete, detailed record of all visits is available for your review at any time.

## **Intelligent Analysis**

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To help build your profits and strengthen your services, the platform provides invaluable information on people on your premises through performing a variety of intelligent analysis and generating heat maps. Through it, you can know the number of people in an area at any given time, where they frequent the most, and precisely when the highest peaks in numbers occurs.

## **Parking Lot Management**

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From just one platform, you can remotely manage all the devices in your parking lots, such as parking space detectors and ANPR devices, to guide vehicles in an orderly fashion. The visualization function makes it easier for you to drag and drop devices on the visual map of your parking lots.

The platform also offers a vehicle search system for vehicle owners to use when they are leaving, and the fuzzy search function allows you to quickly and accurately locate vehicles even with limited information, making it easier than ever to find what you're looking for.

The platform supports scenes without barriers to ensure smooth navigation for drivers, and it helps keep your parking occupancy information up-to-date with the function of resetting available parking spaces. Insightful information is also provided in the form of statistics, which supports automatic export of parking lot reports and improved statistics of entry and exit data, on an easy-to-use dashboard, keeping you up to date on key activities taking place in your parking lots to help you effectively manage them.

## **Intelligent Inspection**

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Both your properties and equipment are effectively monitored through our user friendly platform. The settings can even be customized to meet your particular needs for item inspection. Inspection plans can also be scheduled to capture images and monitor temperatures with HD cameras and temperature imaging technology, to help you quickly identify equipment failures and safety hazards when detected. This type of intelligent inspection greatly improves upon manual methods, increasing the accuracy and efficiency of inspection, while reducing labor cost.

## **Synthesis**

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DSS Professional is friendly with other systems in your infrastructure. By developing bridges, linkage actions can be flexibly configured on DSS Professional based on the events that are triggered on other platforms. Also, the platform can send device status and events to third-party systems through BACnet, SNMP, Modbus, and SIA protocols.

Access control records can be synchronized with the databases of other platforms. For added convenience, the devices, people, and vehicle information on third-party platforms can be seamlessly synchronized with DSS Professional to aid in opening and closing doors, and performing other functions.

## ■ System Requirements

|                  | Server                                                                                                                                                                                                                                                                      |                                                      | PC Client                                                                                                                                                                                                                                                                                                |                                  |
|------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------|
|                  | Recommended                                                                                                                                                                                                                                                                 | Minimum                                              | Recommended                                                                                                                                                                                                                                                                                              | Minimum                          |
| CPU              | Intel Xeon Silver 4114 @2.2 GHz<br>10 Core Processor                                                                                                                                                                                                                        | Intel Xeon E-2224 @3.4 GHz, 8M<br>cache              | Intel® Core i7-11700 @2.50 GHz                                                                                                                                                                                                                                                                           | Intel® Core i5-9500 @3.00 GHz    |
| Memory           | 32 GB                                                                                                                                                                                                                                                                       | 16 GB                                                | 16 GB                                                                                                                                                                                                                                                                                                    |                                  |
| System Disk      | 1TB 7200 RPM SATA 6 Gbps<br>512n 3.5 in Hot-plug Hard Drive                                                                                                                                                                                                                 | 1 TB 7200 RPM SATA Entry 3.5 in<br>Cabled Hard Drive | -                                                                                                                                                                                                                                                                                                        |                                  |
| Storage Disk     | 7200 RPM Enterprise Class HDD 1 TB, 500 GB free space for DSS                                                                                                                                                                                                               |                                                      | 200 GB free space for DSS Client                                                                                                                                                                                                                                                                         | 100 GB free space for DSS Client |
| Graphics Card    | -                                                                                                                                                                                                                                                                           |                                                      | NVIDIA® GeForce® RTX 3060                                                                                                                                                                                                                                                                                | Intel® UHD Graphics 630          |
| Ethernet Port    | 4 Ports@1000 Mbps                                                                                                                                                                                                                                                           | 2 Ports@1000 Mbps                                    | 1000 Mbps                                                                                                                                                                                                                                                                                                |                                  |
| Operating System | Microsoft® Windows Server 2019 Standard (64-bit)<br>Microsoft® Windows Server 2022 Standard (64-bit)<br>Microsoft® Windows 10 20H2 Pro (64-bit)<br>Microsoft® Windows 11 21H2 Pro (64-bit)<br>VMware®ESXi™ 7.x<br>Microsoft® Hyper-V with Windows Server 2019               |                                                      | Microsoft® Windows 10 20H2 Pro (32-bit)<br>Microsoft® Windows 10 20H2 Pro (64-bit)<br>Microsoft® Windows 11 21H2 Pro (64-bit)<br>Microsoft® Windows Server 2019 Standard (64-bit)<br>Microsoft® Windows Server 2022 Standard (64-bit)<br>VMware®ESXi™ 7.x<br>Microsoft® Hyper-V with Windows Server 2019 |                                  |
| Languages        | Arabic, Bulgarian, Czech, Danish, English (United States), Finnish, French, German, Hebrew, Hungarian, Italian, Japanese, Korean, Macedonian, Polish, Brazilian Portuguese, Russian, Simplified Chinese, Spanish, Thai, Traditional Chinese, Turkish, Ukrainian, Vietnamese |                                                      |                                                                                                                                                                                                                                                                                                          |                                  |

- ① We recommend that you install an operating system on a physical server and directly deploy the DSS platform on the server to achieve optimal and reliable performance. If you have to deploy the DSS platform on a virtual server, please see the deployment manual for more instructions.
- ② The platform supports using a maximum of 2 network cards at the same time. You can either use 1 network card for accessing devices on a local area network, and 1 network card for services on the Internet; or use both network cards for accessing devices on a local area network, and then map one of them to the Internet.

## ■ Performance Specification

| Organization, Role and User |                                        |
|-----------------------------|----------------------------------------|
| Organizations               | 10 levels; 999 organizations in total  |
| Roles (User Permission)     | 500                                    |
| Users                       | 200 online users and 2,500 total users |
| Roles per User              | 32                                     |
| DSS Agile VDP Users         | 500 online users and 5,000 total users |
| User Groups                 | 20                                     |
| Users per User Group        | 500                                    |

| Recording Plan                   |       |
|----------------------------------|-------|
| General Recording Plans          | 3,000 |
| Motion Detection Recording Plans | 3,000 |
| Video Retrieval Plans            | 3,000 |
| File Retrieval Plans             | 3,000 |

| Live View and Playback    |       |
|---------------------------|-------|
| Total Public View Folders | 999   |
| Total Public Views        | 1,000 |

| Event                         |       |
|-------------------------------|-------|
| Event Sources for Event Rules | 3,000 |
| Combined Event Rules          | 100   |
| Combined Events               | 1,000 |
| Generic Event Rules           | 50    |

| Map                             |                                               |
|---------------------------------|-----------------------------------------------|
| Hierarchies                     | 8                                             |
| Size of Offline GIS Map Package | 1 GB                                          |
| Raster Maps                     | 256                                           |
| Maximum Size of Raster Map      | 15 MB                                         |
| Raster Map Resolution           | 8,100 × 8,100                                 |
| Resources on GIS Map            | 300 (after merging)<br>2,000 (before merging) |
| Resources per Raster Map        | 300 (after merging)<br>2,000 (before merging) |
| Static Visual Range             | 1,000 channels                                |

| Person and Vehicle Management             |         |
|-------------------------------------------|---------|
| Person and Vehicle Groups                 | 999     |
| Group Levels                              | 10      |
| Total Persons                             | 300,000 |
| Persons on the DSS Platform               | 300,000 |
| Persons from Third-party Systems          | 30,000  |
| Person Groups that a Person can Belong to | 20      |
| Cards                                     | 600,000 |
| Faces                                     | 300,000 |
| Fingerprints                              | 600,000 |
| Vehicles                                  | 50,000  |

| Face and Vehicle Watch Lists <sup>①</sup> |         |
|-------------------------------------------|---------|
| Total Faces                               | 300,000 |
| Face Watch Lists                          | 50      |
| Faces per Face Watch List                 | 50,000  |
| Vehicle Watch Lists                       | 32      |
| Vehicles per Vehicle Watch List           | 50,000  |

| Access Control                 |     |
|--------------------------------|-----|
| Zones                          | 256 |
| Zone Levels                    | 8   |
| Access Rules (Doors and Lifts) | 500 |

|                                                                             |                                                                                  |
|-----------------------------------------------------------------------------|----------------------------------------------------------------------------------|
| Persons for Access Rules (Doors and Lifts)                                  | 100,000                                                                          |
| Persons for Door Access Rules                                               | 100,000 (1 password, 2 face images, 3 fingerprints, and 5 cards for each person) |
| Door Access Rules                                                           | 500                                                                              |
| Persons for Lift Access Rules                                               | 100,000                                                                          |
| Lift Access Rules                                                           | 300                                                                              |
| Global Anti-passback Rules                                                  | 16                                                                               |
| Anti-passback Groups per Global Anti-passback Rule                          | 2–4                                                                              |
| Card Readers per Anti-passback Group for Global Anti-passback Rule          | 64                                                                               |
| Global Interlock Rules                                                      | 16                                                                               |
| Door Access Points per Group for the Rule of Global Interlock within Groups | 2–4                                                                              |
| Interlock Groups for the Rule of Global Interlock between Groups            | 2                                                                                |
| Doors per Interlock Group for the Rule of Global Interlock between Groups   | 1–4                                                                              |
| Total Public Passwords                                                      | 1,500                                                                            |
| Public Passwords per Device                                                 | 500                                                                              |

### Visitor

|                           |        |
|---------------------------|--------|
| Appointments in Progress  | 50,000 |
| Visitor Permission Groups | 50     |

### Video Intercom

|                       |       |
|-----------------------|-------|
| Rooms                 | 5,000 |
| Persons per Room      | 10    |
| VDP Accounts per Room | 5     |

### Intelligent Analysis

|                                                        |     |
|--------------------------------------------------------|-----|
| People Counting Groups                                 | 30  |
| People Counting Rules per Group                        | 20  |
| Channels for Extracting People Counting Data at a Time | 100 |
| Metadata Statistics Channels Searched at a Time        | 200 |

### Parking Lot Management

|                                       |        |
|---------------------------------------|--------|
| Parking Lot Organization Levels       | 10     |
| Total Parking Lot Organizations       | 999    |
| Vehicles                              | 50,000 |
| Vehicle Groups                        | 512    |
| Vehicle Groups per Parking Lot        | 32     |
| Main Parking Lots                     | 16     |
| Sub Parking Lots per Main Parking Lot | 16     |
| Entrances                             | 128    |

|                                                     |               |
|-----------------------------------------------------|---------------|
| Exits                                               | 128           |
| Total Entrance/Exit Points                          | 128           |
| Total Entrances and Exits                           | 128           |
| Parking Space Categories (Unclassified Excluded)    | 5             |
| Parking Spaces per Category (Unclassified Excluded) | 1,000         |
| Total Reserved Parking Spaces                       | 10,000        |
| Total Reserved Parking Space Groups                 | 3,000         |
| Parking Spaces per Reserved Parking Space Group     | 1,000         |
| License Plates per Reserved Parking Space Group     | 1,000         |
| Reserved Parking Space Groups per Parking Lot       | 3,000         |
| Parking Space Detectors per Parking Lot             | 500           |
| Parking Spaces per Parking Lot                      | 1,500         |
| Parking Space Available Displays per Parking Lot    | 30            |
| Image Size per Layer                                | 15 MB         |
| Resolution per Layer                                | 8,100 × 8,100 |
| Total Layers                                        | 128           |
| Layers per Parking Lot                              | 16            |
| Resources per Layer (parking spaces not included)   | 600           |
| Parking Spaces per Layer                            | 1,000         |
| Vehicle Search Rules                                | 32            |
| Vehicle Search Point Links per Vehicle Search Rule  | 32            |
| Parking Overtime Rules                              | 128           |
| Rules for Sending Scheduled Reports                 | 32            |

### Maintenance Center

|                             |       |
|-----------------------------|-------|
| Alert Rules                 | 3,000 |
| SNMP Protocol Manufacturers | 5     |

### Synthesis

|                                                                   |       |
|-------------------------------------------------------------------|-------|
| Event Synchronization Projects                                    | 5     |
| Incoming Triggered Event Types per Event Synchronization Project  | 300   |
| System Integration Projects                                       | 5     |
| Event Types per System Integration Project                        | 300   |
| Total Trigger Out Event Sources                                   | 3,000 |
| SNMP Event Sources                                                | 3,000 |
| Total BACnet Event Sources (Sum of Event Sources for Each Object) | 3,000 |
| Total BACnet Objects                                              | 3,000 |
| Max Event Sources per BACnet Object                               | 3,000 |
| Total Modbus Event Sources                                        | 3,000 |

### Group Talk

|                 |     |
|-----------------|-----|
| Groups          | 30  |
| Users per Group | 100 |

### AR

|                                               |    |
|-----------------------------------------------|----|
| Tag Templates                                 | 50 |
| Tags per AR Channel                           | 50 |
| Live Video Channels Bound to a Single Tag     | 5  |
| Recorded Video Channels Bound to a Single Tag | 5  |
| Locally Uploaded Images per Tag               | 5  |
| Linked Channels per Tag                       | 16 |

### Notification Center

|          |       |
|----------|-------|
| Messages | 1,000 |
|----------|-------|

### Quick Commands

|                            |    |
|----------------------------|----|
| Quick Commands per User    | 20 |
| Commands per Quick Command | 20 |

### Intelligent Inspection (plug-in)

|                                           |        |
|-------------------------------------------|--------|
| Inspection Organizations                  | 999    |
| Levels of Inspection Organizations        | 10     |
| Inspection Objects                        | 10,000 |
| Inspection Points                         | 10,000 |
| Inspection Points per Organization        | 1,000  |
| Inspection Plans                          | 1,000  |
| Inspection Points per Inspection Plan     | 100    |
| Execution Time Points per Inspection Plan | 24     |

### Retail (plug-in)

|                                                     |                   |
|-----------------------------------------------------|-------------------|
| Persons                                             | 50,000            |
| Total Areas                                         | 100               |
| Total Stores                                        | 500               |
| Floors Supported by a Single Store                  | B2–F8 (10 floors) |
| People Counting Regions Supported by All Stores     | 1,000             |
| People Counting Regions Supported by a Single Store | 10                |

|                                    |    |
|------------------------------------|----|
| Rules of Sending Scheduled Reports | 32 |
|------------------------------------|----|

| Education (plug-in)                                    |                                          |
|--------------------------------------------------------|------------------------------------------|
| Total Attendance Groups                                | 1,000                                    |
| People Supported by All Attendance Groups              | 50,000                                   |
| People Supported by a Single Attendance Group          | 2,000                                    |
| Total Classrooms                                       | 1,000                                    |
| Face Recognition Channels Linked to a Single Classroom | 5                                        |
| Total Courses                                          | 5,000                                    |
| Total Course Templates                                 | 50                                       |
| Students per Classroom                                 | 10,000                                   |
| Students Taking Classes at the Same Time               | Standalone: 4,000<br>Distributed: 40,000 |
| Total Attendance Points                                | 64                                       |
| Total Attendance Rules                                 | 50                                       |

| Data Storage                                      |            |
|---------------------------------------------------|------------|
| Event Records                                     | 20,000,000 |
| Face Recognition Records                          | 20,000,000 |
| ANPR Records                                      | 20,000,000 |
| Metadata Records                                  | 20,000,000 |
| Access Records                                    | 20,000,000 |
| Analysis Records for People Enter and Exit        | 5,000,000  |
| Video Intercom Records                            | 20,000,000 |
| Historical Count Records                          | 20,000,000 |
| In Area Statistical Records                       | 20,000,000 |
| <b>Heat Map Records</b>                           | 5,000,000  |
| Hourly/Daily/Monthly Face Statistics              | 20,000,000 |
| Hourly/Daily/Monthly Human Body Statistics        | 20,000,000 |
| Hourly/Daily/Monthly Motor Vehicle Statistics     | 20,000,000 |
| Hourly/Daily/Monthly Non-motor Vehicle Statistics | 20,000,000 |
| Visitor Records                                   | 20,000,000 |
| Vehicle Enter Records                             | 20,000,000 |
| Vehicle Exit Records                              | 20,000,000 |
| People Entering and Exiting Records               | 5,000,000  |
| Parking Records                                   | 20,000,000 |
| Vehicle Forced Exit Records                       | 20,000,000 |
| Vehicle Parking Duration Records                  | 20,000,000 |

|                                           |            |
|-------------------------------------------|------------|
| Parking Duration Records of Parking Space | 20,000,000 |
| MPT Records                               | 20,000,000 |
| Operator Logs                             | 20,000,000 |
| POS Records                               | 20,000,000 |
| Maintenance Alert Records                 | 20,000,000 |
| Maintenance Fault Records                 | 5,000,000  |
| Plug-in Logs                              | 20,000,000 |
| Service Logs                              | 20,000,000 |

### Data Storage-Independent Data Deployment

|                          |            |
|--------------------------|------------|
| Video Metadata Records   | 30,000,000 |
| Event Records            | 30,000,000 |
| Face Recognition Records | 30,000,000 |
| ANPR Records             | 30,000,000 |

### Data Storage-Intelligent Inspection Plug-in

|                          |            |
|--------------------------|------------|
| Inspection Records       | 20,000,000 |
| Inspection Point Records | 20,000,000 |

### Data Storage-Retail Plug-in

|                                |           |
|--------------------------------|-----------|
| Accurate People Flow           | 5,000,000 |
| General People Flow            | 5,000,000 |
| Queue Analysis                 | 5,000,000 |
| People Flow Analysis in Region | 5,000,000 |
| Analysis of Heat in Region     | 5,000,000 |
| General Customer Portrait      | 5,000,000 |
| Accurate Customer Portrait     | 5,000,000 |

### Data Storage-Education Plug-in

|                           |            |
|---------------------------|------------|
| Class Attendance Records  | 20,000,000 |
| School Attendance Records | 20,000,000 |

## ■ Server Specification

The following specifications are obtained in servers with recommended system requirements.

| Parameter                         |                                                 | Single Server                            | Multiple Servers                           |
|-----------------------------------|-------------------------------------------------|------------------------------------------|--------------------------------------------|
| <b>Sub Servers per System</b>     | Sub Servers                                     | -                                        | 10 servers                                 |
| <b>Total Devices</b>              | Devices <sup>②</sup>                            | 2,000 devices                            | 20,000 devices                             |
|                                   | Auto-registered Devices                         | 1,000 devices                            | 10,000 devices                             |
| <b>Video Devices and Channels</b> | Video Devices and Channels <sup>③</sup>         | 1,000 devices; 2,000 channels            | 10,000 devices; 20,000 channels            |
|                                   | Devices Added by Hikvision Protocol             | 500 devices; 2,000 channels              | 5,000 devices; 20,000 channels             |
|                                   | P2P Devices                                     | 32 devices                               |                                            |
|                                   | Devices Added by ONVIF Protocol                 | 1,000 devices; 2,000 channels            | 10,000 devices; 20,000 channels            |
|                                   | ANPR Channels                                   | 500 channels (128 channels for entrance) | 5,000 channels (128 channels for entrance) |
|                                   | Face Recognition Devices and Channels           | 100 devices; 500 channels                | 1,000 devices; 5,000 channels              |
|                                   | Video Metadata Channels                         | 500 channels                             | 5,000 channels                             |
|                                   | MPT Devices                                     | 100 devices                              | 300 devices                                |
|                                   | EEC Devices                                     | 32 devices                               |                                            |
|                                   | MDVR/MNVR                                       | 100 devices; 800 channels                | 1,000 devices; 8,000 channels              |
|                                   | Devices Accessed via RTSP                       | 1,000 devices; 2,000 channels            | 10,000 devices; 20,000 channels            |
|                                   | Access Control Devices and Lift Control Devices | 500 devices; 1,000 channels              | 1,500 devices; 3,000 channels              |
| <b>Access Control Devices</b>     | Total Access Control Devices                    | 500 devices; 1,000 doors                 | 1,500 devices; 3,000 doors                 |
|                                   | Access Control Devices on the DSS Platform      | 500 devices; 1,000 doors                 | 1,500 devices; 3,000 doors                 |
|                                   | Access Control Devices from Third-party Systems | 500 devices; 1,000 doors                 | 1,500 devices; 3,000 doors                 |
|                                   | Lift Control Devices                            | 500 devices; 1,000 channels              | 1,500 devices; 3,000 channels              |
|                                   | Visitor Terminals                               | 32 devices                               |                                            |
|                                   | Video Intercom Devices                          | 2,000 devices                            |                                            |
| <b>VDP Devices</b>                | Video Intercom Devices                          | 2,000 devices                            |                                            |
| <b>Alarm Devices</b>              | Alarm Controllers                               | 100 devices; 1,000 zones                 | 500 devices; 5,000 zones                   |
|                                   | Emergency Phone Towers                          | 1,000 devices; 2,000 channels            | 10,000 devices; 20,000 channels            |
|                                   | EAS Alarm Channels                              | 1,000 channels                           | 10,000 channels                            |
| <b>Security Screening Devices</b> | Security Screening Machines                     | 20 devices                               | 200 devices                                |
|                                   | Walk-through Metal Detectors                    | 60 devices                               | 600 devices                                |
| <b>Radars</b>                     | Radars                                          | 20 devices                               |                                            |
| <b>Parking Lot Devices</b>        | Parking Space Detectors                         | 500 devices; 1,500 parking spaces        | 2,000 devices; 6,000 parking spaces        |
|                                   | Parking Space Available Displays                | 150 displays                             | 600 displays                               |
| <b>Intelligent Analysis</b>       | People Counting Channels                        | 100 channels                             | 300 channels                               |
|                                   | Heat Map Channels                               | 100 channels                             | 300 channels                               |
| <b>IP Speaker</b>                 | IP Speakers (ONVIF)                             | 1,000 devices                            | 10,000 devices                             |
| <b>Multi-site</b>                 | Sites                                           | 100 sites                                |                                            |
|                                   | Total Devices                                   | 10,000 devices; 20,000 channels          |                                            |

|                                  |                                                           |                         |                |
|----------------------------------|-----------------------------------------------------------|-------------------------|----------------|
| <b>Network Devices</b>           | Switches                                                  | 200 devices             | 500 devices    |
| <b>Others</b>                    | POS Channels                                              | 100 channels            | 300 channels   |
| <b>Media Transmission Server</b> | Total Incoming Bandwidth                                  | 600 Mbps                | 6,000 Mbps     |
|                                  | Incoming Video Bandwidth                                  | 600 Mbps                | 6,000 Mbps     |
|                                  | Incoming Picture Bandwidth                                | 200 Mbps                | 2,000 Mbps     |
|                                  | Total Outgoing Bandwidth                                  | 600 Mbps                | 6,000 Mbps     |
|                                  | Outgoing Video Bandwidth                                  | 600 Mbps                | 6,000 Mbps     |
|                                  | Outgoing Picture Bandwidth                                | 200 Mbps                | 2,000 Mbps     |
|                                  | Total Storage Bandwidth                                   | 600 Mbps                | 6,000 Mbps     |
|                                  | Video Storage Bandwidth                                   | 600 Mbps                | 6,000 Mbps     |
|                                  | Picture Storage Bandwidth                                 | 200 Mbps                | 2,000 Mbps     |
|                                  | Prerecording Bandwidth for Alarm Recordings               | 400 Mbps                | 4,000 Mbps     |
| <b>Central Storage</b>           | Central Storage Position                                  | Local Server and IP SAN |                |
|                                  | Maximum Capacity per Storage Server                       | 400 TB                  | 4 PB           |
| <b>Event<sup>④</sup></b>         | Total Events <sup>⑤</sup>                                 | 300 per second          | 600 per second |
|                                  | Storage of Events or Alarms without Pictures <sup>⑥</sup> | 300 per second          | 600 per second |
|                                  | Alarms with Snapshots (Stored on Devices)                 | 300 per second          | 600 per second |
|                                  | Access Control Events                                     | 300 per second          | 600 per second |
|                                  | Combined Events                                           | 100 per second          |                |
| <b>Third-party Integration</b>   | Concurrent SNMP Protocol Push Events                      | 50 per second           |                |
|                                  | Concurrent Access Control Commands of Third-party System  | 15 per second           |                |

① A face can belong to multiple face database. All the devices together cannot contain more than 10 million faces when the number of faces in the watch lists are multiplied by the number of devices. For example, if a face watch list with 200,000 faces is sent to 40 devices, you can only send another face watch list with 100,000 faces to 20 devices. Or, you can send a list with 50,000 faces to 20 devices and another list with 100,000 faces to 10 devices.

② The maximum number of devices, including IPC, NVR, and ITC, cannot exceed 2,000 for a single server, and 20,000 for multiple servers.

③ When adding video channels and video devices, such as IPC, NVR and ITC, to the platform, you cannot add more than 1,000 devices, 2,000 channels for a single server, and 10,000 devices, 20,000 channels for multiple servers.

④ These values represent the maximum number of events that can be triggered at the same time. The numbers are measured based on the peak concurrency tests that were carried out 3 times a day. Each test lasted 20 minutes, with 30% of the peak concurrency being applied to the remaining day.

⑤ The maximum number of events that can be triggered at the same time largely depends on the concurrent write capability of the database.

⑥ For events with snapshots, you must take into account the ability for disks and servers to concurrently write images at the same time. For servers it is 200 Mbps.

## ■ DSS Mobile Client Main Functions

### ***DSS Agile 8***

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#### ◆ ***Live View***

Even when you are away from your computer, you can also ensure the safety of your area right on DSS Agile. You can watch the real-time videos remotely from up to 16 channels at the same time with 3 stream types for you to choose according to the status of your mobile network. PTZ control is also supported so that you can cover most of the area. When anything of interest happens, you can take snapshots or recordings as evidence that stores on your phone, or send a voice message to deter unwanted activities.

#### ◆ ***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.

#### ◆ ***Visitor Management***

You can create visitor pass and grant access permissions for visitors, and effortlessly keep tabs on visitors' status, from visit information to end of the visit. Automatic visit and automatic leave can be set for unrivaled convenience.

#### ◆ ***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.

#### ◆ ***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.

#### ◆ ***Event***

You can receive and process various types of alarms. You can also receive alarms when DSS Agile is not running with a subscription button.

#### ◆ ***Video Intercom***

You can make calls to and receive calls from main stations, indoor monitors and door stations. After subscribing to offline calls, you will still receive calls even when the App is not running. Also, a complete record of incoming and outgoing calls ensure that you will not miss any important message.

#### ◆ ***Alarm Control Panel***

Alarm controllers can be remotely operated through DSS Agile to protect areas. You can arm and disarm areas, bypass and isolate zones, display the status of areas and zones in real-time, and filter the status of areas and zones to display information you are specifically interested in.

◆ **File Management**

Snapshots and videos stored on devices or the server can be managed by deleting them, exporting them to albums, and more. Video downloads can be automatically and manually paused, saving you time from redownloading them when there are connection issues.

**DSS Agile VDP**

◆ **Visitor Management**

You can easily manage visitors by registering their information and generating visitor passes with necessary access permissions. When they arrive, they can use the passes to gain access to where you are. DSS Agile VDP will log when visitors begin and end their visits.

◆ **Intercom Monitoring**

When guests arrive, they can call you on the door station or you can verify their identities through the live video. After confirming they are who you are expecting, you can remotely open the door for them directly on DSS Agile VDP. If you spot any unwanted activities, tap and call the management center to report an emergency.

◆ **Message Center**

The unlock records and alarm messages on the indoor monitor are fully accessible on DSS Agile VDP, allowing you to identify potential threats and ensure the safety of your residence.

■ **DSS Mobile Client Requirements**

|                  | iOS                                                                                                                                                                                                                | Android              |
|------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------|
| Model            | iPhone 5S or later                                                                                                                                                                                                 | -                    |
| RAM              | -                                                                                                                                                                                                                  | 2 GB or more         |
| Resolution       | -                                                                                                                                                                                                                  | 1280 × 720 or higher |
| Operating System | iOS 12.0 or later                                                                                                                                                                                                  | Android 8.0 or later |
| Language         | Arabic, Bulgaria, Czechish, English (United States), French, Japanese, Korean, Latin American Spanish, Poland, Portugal, Russian, Simplified Chinese, Spanish, Traditional Chinese, Turkish, Ukrainian, Vietnamese |                      |