# All-in-one Security System for Enterprises

## Security Management Platform with Pre-installed DSS Software

- Integrates All Management Functions into One Client
- Allows Device Initialization and Management
- Live Video Playback from Edge Device
- Supports Access Control and Video Intercom Integration
- Configure Video Wall Layout and Scheme

### System Overview

DSS7016DR-S2 is a high-performance security management platform based on Linux OS and pre-installed DSS software. It enhances hardware performance and provides centralized video monitoring, access control, video intercom, alarm controller, and analytic features such as face detection and automatic number plate recognition. It is suitable for medium and large scenes, such as residential areas and casinos.

### Functions

Compatability

DSS Pro is compatible with all Dahua IP-enabled devices: network cameras, NVRs, DVRs, video intercom devices, and access control devices.

Scalability and Interoperability

The DSS software supports up to 5,000 channels1 PB TB storage capacity per server with distributed deployment and customized integration of other systems and devices such as SDK and API as well as ONVIF for integration with other 3rd party cameras on the market. The server supports hot standby and N + M redundancy enabling failover servers if the primary server goes offline.

Access Control and Intercom

DSS Pro offers full support and integration for access control and video intercom products to support a complete security system. The server monitors door status and events, manages access rights, and support advanced rules management. In addition to access controls, the server supports two-way communication between intercom and control center.

Video Wall

The software offers settings to configure all aspects of a video wall application including layout, live preview, scheme configuration, and tour set-up. In addition, the application supports video wall splicing and roaming.

Management Operations and Applications

DSS Pro manages the devices and users accounts for an entire organization. Operators can assign different camera ranges, active use periods, and business roles for each user. The server also supports different schemes for various events, including IVS, to record and view all event history information.

## Hardware Specification

### System

| | |
|---|---|
| Main Processor | Intel i5-6600, 64 bits 4 Core Processor |
| Operation System | Embedded Linux |
| Memory | 8 GB |
| System Disk | Seagate 7200 RPM Enterprise Class HDD 1 TB |
| Motherboard | Embedded Board (7 × 24 Operation) |
| Hard Disk Hot Swap | Supports |
| Hard Disk Compatibility | SAS/SATA disk |
| Power Redundancy | 1+1 redundant power |

### Interface

| | |
|---|---|
| Network Ports | Four (4) Ethernet (100/1000 Mbps) |
| USB Ports | Front Panel: Two (2) USB 2.0<br>Back Panel: Two (2) USB 3.0 |
| HDMI Ports | Three (3) |
| VGA Ports | One (1) |

### Storage

| | |
|---|---|
| HDD Installation | Supports 15 HDDs (8 TB per HDD) at 3.5 inches each |
| Storage | Up to 200 TB per server |
| HDD Mode | Single |
| Bandwidth of Video Storage per Server | 6000 mbps |

### Electrical

| | |
|---|---|
| Power Consumption | Maximum: 315 W<br>Stable: 210 W |

### Environmental

| | |
|---|---|
| Operating Temperature | 0 °C to 40 °C (32 °F to +104 °F) |
| Operating Humidity | 10% to 80% (RH), Non-condensing |
| Storage Temperature | –20 °C to +70 °C (–4 °F to +158 °F) |
| Storage Humidity | 5% to 90% (RH), Non-condensing |
| Working Altitude | 0 m to 5000 m (0 ft to 16404.20 ft) |

### Construction

| | |
|---|---|
| Product Weight | 19.1 kg (42.11 lb) |
| Product Dimension | 444.8 mm × 133.2 mm × 522.2 mm<br>(17.51 in. × 5.24 in. × 20.56 in.) |
| Installation Method | Standard 19-inch Pallet Mount |
| Secondary Development | Platform SDK Provided |

## PC Client System Requirements

| Item | Description | |
|---|---|---|
| | Recommended | Minimum |
| CPU | Intel Core i7, 64 bits 4 Core Processor | Intel Core i3, 64 bits 4 Core Processor |
| Memory | 16 GB | 4 GB |
| Graphics Card | GeForce® GTX 1060 3 GB (Discrete Graphics Card) | Intel® HD Graphics 530 (Integrated Graphics) |
| Hard Drive Capacity | 200 GB Free for DSS Client | 100 GB Free for DSS Client |
| Ethernet Port | 1,000 Mbps | |

## Performance Specification

### Organization, Role, and User

| | |
|---|---|
| Organizations | 10 Levels<br>999 Organizations |
| Roles (User Permission) | 100 |
| Users | 50 Online Users<br>200 Total Users |
| Users for VDP Mobile App | 500 Online Users<br>5,000 Total Users |

### Recording Plan

| | |
|---|---|
| General Recording | 3,000 |
| Motion Detection Recording | 3,000 |
| Video Retrieval | 3,000 |

### Event

| | |
|---|---|
| Event Rules | 3,000 |
| Combined Event Rules | 100 |
| Combined Events | 200 |

### Map

| | |
|---|---|
| Hierarchies | Eight (8) |
| Size of Offline GIS Map Package | 500 |
| Raster Maps | 256 |
| Submaps per Map | 32 |
| Maximum Size of Raster Map | 15 MB |
| Raster Map Resolution | 8100 x 8100 |
| Resources on GIS Map | 300 |
| Resources per Raster Map | 300 |

### Person and Vehicle Management

| | |
|---|---|
| Persons and Vehicle Groups | 999 |
| Sub Groups per Level (Main Group Included) | 10 |
| Persons | 100,000 |
| Cards | 200,000 |
| Faces | 100,000 |
| Fingerprints | 200,000 |
| Vehicles | 20,000 |

### Face and Vehicle Watch Lists[1]

| | |
|---|---|
| Face Watch Lists | 50 |
| Vehicle Watch Lists | 16 |
| Total Faces | 100,000 |
| Faces per Watch List | 50,000 |
| Vehicles per Watch List | 20,000 |

### Intelligent Analysis

| | |
|---|---|
| People Counting Groups | Eight (8) |
| People Couting Rules per Group | 20 |

### Parking Lot Management

| | |
|---|---|
| Vehicles | 20,000 |
| Vehicle Groups | 16 |
| Parking Lots | Eight (8) |
| Entrance and Exits | 16 |

### Access Control

| | |
|---|---|
| Persons per Permission Group | 10,000 |
| Access Permission Groups | 200 |
| Door Groups | 200 |
| Public Passwords | 1,500 |

### Notification Center

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

### Record Storage

| | |
|---|---|
| Event | 5,000,000 |
| ANPR | 5,000,000 |
| Analytics | 5,000,000 |
| Access Control | 5,000,000 |
| Video Intercom | 5,000,000 |
| Visitor | 5,000,000 |

| | |
|---|---|
| Entrance | 5,000,000 |
| Exit | 5,000,000 |
| Forced Exit | 5,000,000 |
| Historical Counting | 5,000,000 |
| In-area Statistics | 5,000,000 |
| Heat Map | 5,000,000 |
| Operator Logs | 5,000,000 |
| Service Log | 5,000,000 |

## Server Specification

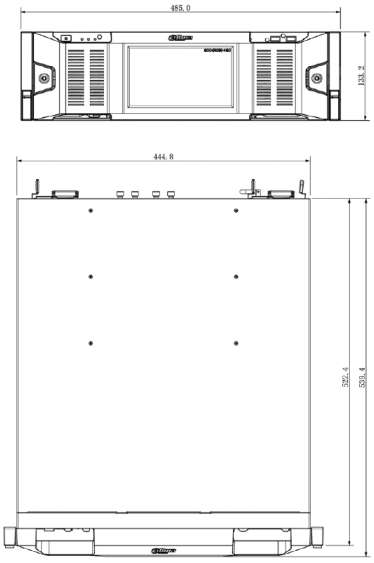
| Parameter | | Single Server | Multiple Servers |
|---|---|---|---|
| Subservers | Subservers per System | - | Five (5) |
| Total Devices | Devices[2] | 2,000 | 6,000 |
| | Auto-registered Devices | 1,000 | 5,000 |
| Video Devices and Channels | Video Devices and Channels[3] | 500 Devices<br>1,000 Channels | 2,500 Devices<br>5,000 Channels |
| | P2P Devices | 32 | |
| | Add Device by ONVIF | 500 Devices<br>1,000 Channels | 2,500 Devices<br>5,000 Channels |
| | Face Detection Devices and Channels | 20 Devices<br>100 Channels | 100 Devices<br>500 Channels |
| | ANPR Channels | 100 | 500 |
| | Video Analytics Channels | 100 | 500 |
| Access Control Devices | Access Control Devices | 200 Devices<br>500 Doors | 600 Devices<br>1,500 Doors |
| | VDP Devices | 2,000 | |
| Alarm Devices | Alarm Controllers | 64 Devices<br>320 Zones | 320 Devices<br>1,600 Zones |
| | Emergency Phone Towers | 20 Devices<br>40 Channels | 100 Devices<br>200 Channels |
| Intelligent Analysis | People Counting Channels | 32 Channels | 160 Channels |
| | Heat Map Channels | 32 Channels | 160 Channels |
| Media Transmission Server Bandwidth | Total Incoming | 600 Mbps | 3,000 Mbps |
| | Incoming Video | 600 Mbps | 3,000 Mbps |
| | Incoming Picture | 100 Mbps | 500 Mbps |
| | Total Outgoing | 600 Mbps | 3,000 Mbps |
| | Outgoing Video | 600 Mbps | 3,000 Mbps |
| | Outgoing Picture | 100 Mbps | 500 Mbps |
| | Total Storage | 600 Mbps | 3,000 Mbps |
| | Video Storage | 600 Mbps | 3,000 Mbps |
| | Picture Storage | 100 Mbps | 500 Mbps |
| Playback, Storage, and Download | Prerecording Bandwidth for Alarm Recordings | 400 Mbps | 2,000 Mbps |
| | Maximum Capacity per Storage Server (IPSAN) | 200 TB | 1 PB |
| Events[4] | Total Events[5] | 240 per Second | 480 per Second |
| | Storage of Events/Alarms with Pictures[6] | 240 per Second | 480 per Second |
| | Alarms with Snapshots (Stored on Devices) | 240 per Second | 480 per Second |
| | Access Control Events | 240 per Second | 480 per Second |
| | Number of Combined Events | 100 per Second | |

## DSS Mobile Client Requirements

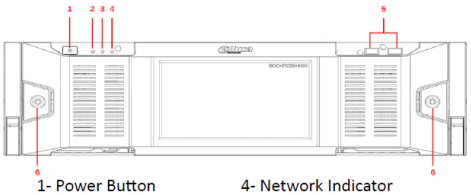
| | iOS | Android |
|---|---|---|
| Model | iPhone 5s or later | - |
| RAM | - | 2 GB or more |
| Resolution | - | 1280 x 720 or higher |
| Operating System | iOS 10.0 or later | Android 5.0 or later |
| Language | Arabic, English (US), French, Russian, Simplified Chinese | |

## Dimensions

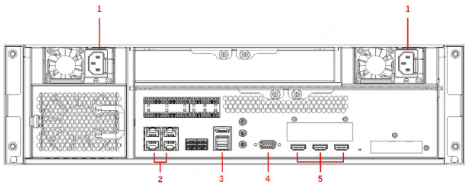
mm




## Front and Back Panels



1- Power Button
2- Hard Device Indicator
3- Alarm Indicator
4- Network Indicator
5- USB 2.0
6- Lock



1- Power Interface
2- Gigabit LAN Port 1-4
3- USB 3.0
4- VGA
5- HDMI Port 1-3

1. 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 6,000 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 500 devices, 1,000 channels for a single server, and 2,500 devices, 5,000 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.