

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

Compatibility

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 channels 1 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 setup. 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 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 Stable: 210 W
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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 (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 999 Organizations
Roles (User Permission)	100
Users	50 Online Users 200 Total Users
Users for VDP Mobile App	500 Online Users 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 Lists¹

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 Counting 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
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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

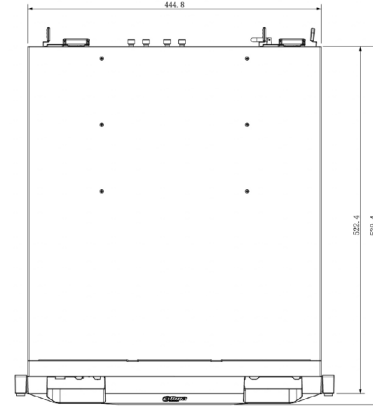
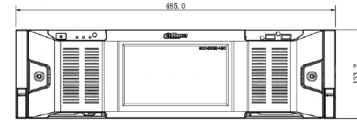
Parameter		Single Server	Multiple Servers
Subservers	Subservers per System	-	Five (5)
Total Devices	Devices ²	2,000	6,000
	Auto-registered Devices	1,000	5,000
Video Devices and Channels	Video Devices and Channels ³	500 Devices 1,000 Channels	2,500 Devices 5,000 Channels
	P2P Devices	32	
	Add Device by ONVIF	500 Devices 1,000 Channels	2,500 Devices 5,000 Channels
	Face Detection Devices and Channels	20 Devices 100 Channels	100 Devices 500 Channels
	ANPR Channels	100	500
	Video Analytics Channels	100	500
Access Control Devices	Access Control Devices	200 Devices 500 Doors	600 Devices 1,500 Doors
	VDP Devices	2,000	
Alarm Devices	Alarm Controllers	64 Devices 320 Zones	320 Devices 1,600 Zones
	Emergency Phone Towers	20 Devices 40 Channels	100 Devices 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
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

- 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.
- The maximum number of devices, including IPC, NVR, and ITC, cannot exceed 2,000 for a single server, and 6,000 for multiple servers.
- 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.
- 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.
- The maximum number of events that can be triggered at the same time largely depends on the concurrent write capability of the database.
- 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.