



# DSS Express System Requirements & Performance



V8.1

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## 1 System Requirements

Feature	Description
OS for DSS Express Server	Microsoft® Windows 10 20H2(64-bit) Microsoft® Windows 11(64-bit)
OS for DSS PC Client	Microsoft® Windows 7 (64-bit) Microsoft® Windows 10 20H2(64-bit) Microsoft® Windows 11(64-bit)
OS for DSS Mobile Client	IOS 10.0 and above Android 5.0 and above

## 2 Performance

### 2.1 Hardware for Server

Feature	Minimum	Recommended
CPU	Intel® Core(TM) I5-9400 CPU@2.90GHZ	Intel® Core(TM) I7-9700K CPU@3.60GHZ
Memory	8 GB	8 GB
System Disk	7200 RPM Enterprise Class HDD 1TB, 200G free space for DSS	7200 RPM Enterprise Class HDD 1TB, 500G free space for DSS
Storage Disk	7200 RPM Enterprise Class HDD	7200 RPM Enterprise Class HDD
Ethernet Port	Ethernet ports@1000Mbps	Ethernet ports@1000Mbps

## 2.2 Maximum Performance

Contents		Minimum	Recommended
Organizaton, User and Role	Organizations	10 levels; 999 organizations in total	
	Roles(User Permission)	20	
	Roles per User	32	
	DSS Agile VDP User	5 online users and 50 total users	10 online users and 50 total users
	Users for VDP Mobile APP	25 online users and 500 total users	50 online users and 500 total users
Recording Plan	General Recording Plans	64	256
	Motion Detection Recording Plans	64	256
Event Plan	Event Rules	64 event sources	256 event sources
Map	Hierarchies	8	
	Number of Raster Maps	32	
	Number of Submaps per Map	32	
	Maximum Size of Raster Map	15 MB	
	Raster Map Resoluton	8,100 × 8,100	
	Number of Resources per Raster Map	300	
Person and Vehicle Management	Persons	5,000	
	Cards	10,000	
	Faces	5,000	
	Fingerprints	10,000	
	Vehicles	5,000	

Contents		Minimum	Recommended
Face and Vehicle Watch Lists	Number of Face Watch Lists		50
	Total Faces for Face Watch List		5,000
	Faces per Face Watch List		5,000
	Number of Vehicle Watch Lists		8
	Vehicles per Vehicle Watch List		5,000
Access Control	Total Persons		5,000
	Access Permission Groups		50
	Door Groups		50
Video Intercom	Rooms		1,000
	Persons per Room		10
	VDP Accounts per Room		5
Parking Lot Management	Vehicles		5,000
	Vehicle Groups		8
	Parking Lots		1
	Number of Entrances and Exits		4
	Entrance and Exit Points		4
	Number of Entrances		2
	Number of Exits		2

Contents		Minimum	Recommended
Intelligent Analysis	People Counting Groups		4
	People Counting Rules		20
Data Info	Event Records		2,000,000
	Face Recogniton Records		2,000,000
	ANPR Records		2,000,000
	Video Metadata Records		2,000,000
	Access Control Records		2,000,000
	Video Intercom Records		2,000,000
	Visitor Records		2,000,000
	Entrance Records		2,000,000
	Exit Records		2,000,000
	Forced Exit Records		2,000,000
	Historical People Counting Records		2,000,000
	In Area Statistical Records		2,000,000
	Heat Map Records		2,000,000
	Operator Logs		2,000,000
Service Logs		2,000,000	

Contents		Minimum	Recommended
Notification Center Messages		1,000	
Total Devices	Devices	128	512
	Auto-registered Devices	32	
Video Devices and Channels	Total Video Devices and Channels	64 devices; 64 channels	256 devices; 256 channels
	P2P Video Devices	32	
	Add Devices by ONVIF	64 devices; 64 channels	256 devices; 256 channels
	ANPR Channels	8 channels	
	Face Recognition Channels	8 devices; 8 channels	
	Video Metadata Channels	8 channels	
ACS Devices	Access Control Devices	16 devices; 16 doors	64 devices; 64 doors
	Video Intercom Devices	64	256
Alarm Devices	Alarm Controller	4 devices; 40 zones	16 devices; 160 zones
Intelligent Analysis	People Counting Channels	16 channels	
	Heat Map Channels	16 channels	
Media Transmission Server	Video Input per Server	200 Mbps	
	Video Output per Server	200 Mbps	

Contents		Minimum	Recommended
Playback, Storage and Download	Storage Bandwidth per Server	100 Mbps	
	Prerecording Bandwidth for Alarm Recordings	50 Mbps	
	Maximum Capacity per Storage Server(Local)	2TB	
Pictures	Picture Bandwidth	50 Mbps	
Events	Storage of Events or Alarms without Pictures	30 per second	60 per second
	Access Control Events	30 per second	60 per second



## 3 Decoding Performance

### 3.1 Hardware for DSS PC Client

Feature	Minimum	Middle	High
CPU	Intel® Core™ i3-4160 CPU @3.60GHz	Intel® Core™ i5-9500 CPU @3.00GHz	Intel® Core™ i7-11700@ 2.50GHz
Memory	8.0GB	16.0GB	16.0GB
Graphic Card	Intel(R) HD Graphics 530 (Integrated Graphics)	HUD Graphics 630 (Integrated Graphics)	NVIDIA GeForce RTX 3060 (Discrete Graphics Card)
OS	Win10 64bit	Win10 64bit	Win10 64bit

### 3.2 Performance in Software Decoding

Encoding Format	Frame Rate (fps)	Bit Rate (Mbps)	Resolution	Maximum Live View Channels		
				Minimum	Middle	High
H.264H	30	0.5	CIF(352*288)	60	128	129
	30	1	D1(704*576)	24	55	90
	30	4	720P(1280*720)	16	50	71
	30	1	1080P(1920*1080)	8	21	33
	30	4	4MP(2688*1520)	4	16	18
	30	8	8MP(3840*2160)	1	8	4
H.265	30	0.25	CIF(352*288)	47	128	148
	30	1	720P(1280*720)	12	40	48
	30	2	1080P(1920*1080)	5	18	19
	30	2	4MP(2688*1520)	2	7	11
	30	4	8MP(3840*2160)	1	4	5
Smart H.265+	30	1	720P(1280*720)	14	30	54
	30	2	1080P(1920*1080)	5	17	19
	30	2	4MP(2688*1520)	3	7	9
	30	4	8MP(3840*2160)	1	6	6

### 3.3 Performance in Hardware Decoding

Encoding Format	Frame Rate (fps)	Bit Rate (Mbps)	Resolution	Maximum Live View Channels		
				Minimum	Middle	High
H.264H	30	0.5	CIF(352*288)	90	110	144
	30	1	D1(704*576)	56	109	95
	30	1	720P(1280*720)	41	65	50
	30	1	1080P(1920*1080)	20	28	23
	30	4	4MP(2688*1520)	11	18	11
	30	8	8MP(3840*2160)	6	7	5
H.265	30	0.25	CIF(352*288)	NA	110	140
	30	1	720P(1280*720)	NA	64	80
	30	2	1080P(1920*1080)	NA	26	45
	30	2	4MP(2688*1520)	NA	18	30
	30	4	8MP(3840*2160)	NA	8	12
Smart H.265+	30	1	720P(1280*720)	NA	65	82
	30	2	1080P(1920*1080)	NA	31	45
	30	2	4MP(2688*1520)	NA	18	22
	30	4	8MP(3840*2160)	NA	9	13

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