DSS Express System Requirements & Performance

V8.0.4

ZHEJIANG DAHUA VISION TECHNOLOGY CO., LTD.

1 System Requirements

Feature	Description
OS for DSS Express Server	Microsoft® Windows 7 (32-bit) Microsoft® Windows 7 (64-bit) Microsoft® Windows 10 20H2(32-bit) Microsoft® Windows 10 20H2(64-bit)
OS for DSS PC Client	Microsoft® Windows 7 (32-bit) Microsoft® Windows 7 (64-bit) Microsoft® Windows 10 20H2(32-bit) Microsoft® Windows 10 20H2(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; up to 999 organizations in total	
	Roles(User Permission)	20	
	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 and Event Plan	Central Recording	Up to 64 video channels	Up to 256 video channels
	Event Rules	Up to 64 event sources	Up to 256 event sources
Map	Hierarchies	8	
	Number of Raster Maps	Up to 32	
	Number of Submaps per Map	Up to 32	
	Maximum Size of Raster Map	15 MB	
	Raster Map Resoluton	8100 × 8100	
	Number of Resources per Raster Map	Up to 300	
Personnel 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	50
	Total Faces for Face Watch List	5,000	
	Faces per Face Watch List	5,000	
	Number of Vehicle Watch Lists	8	
Access Control	Total Persons	30,000	
	Access Permision Groups	50	
Entrance and Exit	Vehicles	5,000	
	Vehicle Groups	8	
Entrance and Exit	Parking Lots	1	
	Entrance and Exit Points	4	
	Number of Entrances	2	
	Number of Exits	2	
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	

Contents		Minimum	Recommended
Data Info	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	
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 (4 channels for entrance)	
	Face Recognition Channels	8 channels	

	Video Metadata Channels	8 channels	
Contents		**Minimum**	**Recommended**
ACS Devices	Access Control	16 devices; 16doors	64 devices; 64 doors
	VDP	64	256
Alarm Devices	Alarm Controller	2 devices; 8 zones	16 devices; 64 zones
Media Transmission Server	Video Input per Server	200 Mbps	
	Video Output per Server	200 Mbps	
Playback, Storage and Download	Storage Bandwidth per Server	100 Mbps	
	Maximum Capacity per Storage Server(Local)	2TB	
Pictures	Picture Bandwidth *Including event/alarm pictures, face pictures, and vehicle pictures	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™ i5-6500 CPU @3.20GHz	Intel® Core™ i7-6700 CPU @3.20GHz
Memory	8.0GB	16.0GB	16.0GB
Graphic Card	Intel(R) HD Graphics 530 (Integrated Graphics)	GeForce GTX 1050 (Discrete Graphics Card)	GeForce GTX 1060 3GB (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	97	117
	30	1	D1(704*576)	24	51	70
	30	4	720P(1280*720)	16	36	49
	30	1	1080P(1920*1080)	8	22	25
	30	4	4MP(2688*1520)	4	8	11
	30	8	8MP(3840*2160)	1	5	6
H.265	30	0.25	CIF(352*288)	47	89	102
	30	1	720P(1280*720)	12	24	31
	30	2	1080P(1920*1080)	5	12	14
	30	2	4MP(2688*1520)	2	8	8
	30	4	8MP(3840*2160)	1	4	4
Smart H.265+	30	1	720P(1280*720)	14	28	33
	30	2	1080P(1920*1080)	5	11	15
	30	2	4MP(2688*1520)	3	8	8
	30	4	8MP(3840*2160)	1	5	5

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	98	128
	30	1	D1(704*576)	56	83	122
	30	4	720P(1280*720)	41	46	62
	30	1	1080P(1920*1080)	20	25	29
	30	4	4MP(2688*1520)	11	11	13
	30	8	8MP(3840*2160)	6	6	8
H.265	30	0.25	CIF(352*288)	NA	86	128
	30	1	720P(1280*720)	NA	46	52
	30	2	1080P(1920*1080)	NA	23	26
	30	2	4MP(2688*1520)	NA	10	14
	30	4	8MP(3840*2160)	NA	7	8
Smart H.265+	30	1	720P(1280*720)	NA	36	52
	30	2	1080P(1920*1080)	NA	24	26
	30	2	4MP(2688*1520)	NA	11	16
	30	4	8MP(3840*2160)	NA	7	8

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ZHEJIANG DAHUA VISION TECHNOLOGY CO., LTD.
Address: No.1199 Bin'an Road, Binjiang District, Hangzhou, P. R. China | Website: www.dahuasecurity.com | Postcode: 310053
Email: overseas@dahuatech.com | Fax: +86-571-87688815 | Tel: +86-571-87688883