DSS Professional System Requirements & Performance

V8.0.4

ZHEJIANG DAHUA VISION TECHNOLOGY CO., LTD.

1 System Requirements

Feature	Description
OS for DSS Professional Server	Microsoft® Windows Server 2012（64 bit） Microsoft® Windows Server 2016 (64-bit) Microsoft® Windows Server 2019 (64-bit) Microsoft® Windows 10 20H2 (64 bit)
OS for DSS PC Client	Microsoft® Win7 (32-bit) Microsoft® Win7 (64-bit) Microsoft® Windows 10 20H2 (32-bit) Microsoft® Windows 10 20H2 (64-bit) Microsoft® Windows server 2008 (64-bit) Microsoft® Windows Server 2012 (64-bit) Microsoft® Windows Server 2016 (64-bit) Microsoft® Windows Server 2019 (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 Xeon E-2224 3.4GHz, 8M cache	Intel Xeon Silver 4114@ 2.2GHz 10 Core Processor
Memory	8GB	16 GB
System Disk	7200 RPM Enterprise Class HDD 1TB, 500G free space for DSS	7200 RPM Enterprise Class HDD 1TB, 500 GB free for DSS
Storage Disk	7200 RPM Enterprise Class HDD	7200 RPM Enterprise Class HDD
Ethernet Port	2 Ports@1000 Mbps	4 Ports@1000 Mbps

2.2 Maximum Performance

Contents		Minimum	Recommended
Organizaton, User and Role	Organizations	10 levels; up to 999 organizatons in total	
	Role(User Permission)	100	
	User	10 online users and 2,500 total users	200 online users and 2,500 total users
	DSS Agile VDP User	50 online users and 5,000 total users	500 online users and 5,000 total users
Recording Plan and Event Plan	Central Recording	Up to 256 video channels	Up to 3000 video channels
	Event Rules	Up to 256 event sources	Up to 3000 event sources

Contents		Minimum	Recommended
Map	Hierarchies	8 Hierarchies	
	Size of Offline GIS Map Package	500MB	
Map	Number of Raster Maps	Up to 32	Up to 256
	Number of Submaps per Map	Up to 32	
	Maximum Size of Raster Map	15MB	
	Raster Map Resoluton	8100 × 8100	
	Number of Resources on GIS Map	Up to 300	
	Number of Resources per Raster Map	Up to 300	
Personnel and Vehicle Management	Persons	5,000	300,000
	Cards	10,000	600,000
	Faces	5,000	300,000
	Fingerprints	10,000	600,000
	Vehicles	5,000	50,000
Face and Vehicle Watch Lists	Number of Face Watch Lists	50	
	Total Faces for Face Watch List	5,000	300,000
	Faces per Face Watch List	5,000	50,000
	Number of Vehicle Watch Lists	32	
Access Control	Total Persons	5,000	30,000
	Access Permision Groups	50	50

Contents		Minimum	Recommended
Entrance and Exit	Vehicles	5,000	50,000
	Vehicle Groups	32	
	Parking Lots	3	16
	Entrance and Exit Points	12	60
	Number of Entrances	6	30
	Number of Exits	6	30
Atendance Data	Atendance Terminals	64	
	Atendance Periods	64	
	Atendance Shifs	100	
Intelligent Analysis	People Counting Groups	NA	30
	People Counting Rules	NA	20
Synthesis	Bridges	5	
	Incoming Trigger Event	100	
	Incoming Trigger Source	500	
Data Info	Event Records	5,000,000	20,000,000
	Face Recogniton Records	5,000,000	20,000,000

Contents		Minimum	Recommended
Data Info	ANPR Records	5,000,000	
	Video Metadata Records	5,000,000	
	Access Control Records	5,000,000	
	Atendance Records	5,000,000	
	Video Intercom Records	5,000,000	
	Visitor Records	5,000,000	
	Entrance Records	5,000,000	
	Exit Records	5,000,000	
	Forced Exit Records	5,000,000	
	Historical People Counting Records	5,000,000	
	In Area Statistical Records	5,000,000	
	Heat Map Records	5,000,000	
	MPT Records	5,000,000	
	Operator Logs	5,000,000	
	Service Logs	5,000,000	
	Independent Database Deployment		
	Event Records	NA	30,000,000
	Face Recognition Records	NA	30,000,000
	ANPR Records	NA	30,000,000
	Video Metadata Records	NA	30,000,000

Contents		Minimum	Recommended
Single Server			
Total Devices	Devices	512 devices	2,000 devices
	Auto-Registrated Devices	256 devices	1,000 devices
Video Devices and Channels	Total Video Devices and Channels	256 devices; 256 channels	1,000 devices; 2,000 channels
	P2P Video Devices	32 devices	32 devices
	Add devices by ONVIF	256 devices; 256 channels	1000 devices; 2000 channels
	ANPR Channels	64 channels (12 channels for entrance)	500 channels (60 channels for entrance)
	Face Recognition Channels	64 channels	100 devices; 500 channels
	Video Metadata Channels	64 channels	500 channels
	People Counting Channels	16 channels	100 channels
	Heat Map Channels	16 channels	100 channels
	POS Channels	16 channels	100 channels
	MPT Devices	32 devices	100 devices
	EEC Devices	8 devices	64 devices
ACS Devices	Access Control	64 devices; 64 doors	500 devices; 1,000 doors
	VDP	256 devices	2,000 devices
Alarm Devices	Alarm Controller	16 devices	100 devices
Security Screening Devices	Security Screening Machine	10	20
	Walk-through Metal Detector	10	60

Contents		Minimum	Recommended
Media Transmission Server	Video Input per Server	350 Mbps	600 Mbps
	Video Output per Server	350 Mbps	600 Mbps
Playback, Storage and Download	Storage Bandwidth per Server	350 Mbps	600 Mbps
	Maximum Capacity per Storage Server	200 TB	
Pictures	Picture Bandwidth *Including event/alarm pictures, face pictures, and vehicle pictures	100 Mbps	200 Mbps
Events	Storage of Events or Alarms without Pictures	60 per second	300 per second
	Access Control Events	60 per second	300 per second
Multi-Servers			
Number of sub servers per system	Sub Server	NA	Up to 10
Total Devices	Devices	NA	20,000 devices
	Auto-Registred Devices	NA	10,000 devices
Video Devices and Channels	Total Video Devices and Channels	NA	10,000 devices; 20,000 channels
	P2P Video Devices	NA	32 devices
	ANPR Devices	NA	5,000 channels (60 channels for entrance)
	Face Recognition Channels	NA	1,000 devices; 5,000 channels
	Video Metadata Channels	NA	5,000 channels
	People Counting Channels	NA	300 channels
	Heat Map Channels	NA	300 channels
	POS Channels	NA	300 channels
	MPT Devices	300 devices	
	EEC Devices	64 devices	

Multi-Servers			
ACS Devices	Access Control	NA	1,500 devices; 3,000 doors
	VDP	NA	2,000 devices
Alarm Devices	Alarm Controller	NA	500 devices
Security Screening Devices	Security Screening Machine	200	
	Walk-through Metal Detector	600	
Pictures	Picture Bandwidth *Including event/alarm pictures, face pictures, and vehicle pictures	NA	2,000 Mbps
Events	Storage of Events or Alarms without Pictures	NA	600 per second
	Access Control Events	NA	600 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

ENABLING A SAFER SOCIETY AND SMARTER LIVING

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