



DSS Professional System Requirements & Performance



V8.0.3

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1 System Requirements

| Feature | Description |
|--------------------------------|--|
| OS for DSS Professional Server | Microsoft® Windows 10 20H2 (64 bit) Microsoft® Windows Server 2012 (64-bit) Microsoft® Windows Server 2016 (64-bit) Microsoft® Windows Server 2019 (64-bit) |
| OS for DSS PC Client | Microsoft® Win7 (32-bit) Microsoft® Win7 (64-bit) Microsoft® Win10 1809 (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 2500 total users | 200 online users and 2500 total users |
| | User for VDP Mobile APP | 50 online users and 5000 total users | 500 online users and 5000 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 |
| Map | Hierarchies | 8 Hierarchies | |
| | Size of Ofine 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 |

| Contents | | Minimum | Recommended |
|------------------------------|---------------------------------|---------|-------------|
| 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 Permission Groups | 50 | 50 |
| Entrance and Exit | Vehicles | 5,000 | 50,000 |
| | Vehicle Groups | 32 | |
| Entrance and Exit | Parking Lots | 3 | 16 |
| | Entrance and Exit Points | 12 | 60 |
| | Number of Entrances | 6 | 30 |
| | Number of Exits | 6 | 30 |
| Attendance Data | Attendance Terminals | 64 | |
| | Attendance Periods | 64 | |
| | Attendance Shifts | 100 | |
| Intelligent Analysis | People Counting Groups | NA | 30 |
| | People Counting Rules | NA | 20 |

| Contents | | Minimum | Recommended |
|-----------|------------------------------------|-----------|-------------|
| Data Info | Event Records | 5,000,000 | 20,000,000 |
| | Face Recogniton Records | 5,000,000 | 20,000,000 |
| | 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 | |
| | Operator Logs | 5,000,000 | |
| | Service Logs | 5,000,000 | |

| Contents | | Minimum | Recommended |
|--------------------------------|-------------------------------------|--|---|
| Single Server | | | |
| Total Devices | Devices | 512 devices | 2,000 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 |
| 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; 64 zones | 100 devices; 500 zones |
| 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 | |

| Contents | | Minimum | Recommended |
|----------------------------------|--|---------------|---|
| Pictures | Picture Storage Bandwidth per Server | 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 |
| 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 |
| ACS Devices | Access Control | NA | 1,500 devices; 3,000 doors |
| | VDP | NA | 2,000 devices |
| Alarm Devices | Alarm Controller | NA | 500 devices; 2,500 zones |
| Pictures | Picture Storage Bandwidth | 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 4400 (Integrated Graphics) | GeForce GTX 1050 (Integrated Graphics) | 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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