Security Management System - Hardware Recommendations (20.02.28.01)

(A) VMS Server

For managing up to 80 cameras supporting dual streaming (for camera resolutions up to 2 MP)

1. Processor – Intel(R) Xeon(R) CPU 2GHz (8 cores) or better
2. RAM – 8GB or more
3. Server class motherboard
4. 2 Gigabit network cards with PCI Express interface
   Note – if NIC teaming is required on server computer, please ensure that server computer with more NICs is selected; such that at least one non-teamed NIC is available on the server computer, after all NIC teaming operations are performed.
5. Operating System - Windows Server 2008 (R2) or Windows Server 2012 or Windows Server 2012 (R2) or Windows Server 2016 or Windows Server 2019
6. Local hard disk - minimum 100 GB free drive space where Security Management System server software is installed; minimum 50 GB drive free space on system drive, if its different than the one where Security Management System server software is installed
   Note – it is recommended to allocate a separate hard disk for Operating System installation; which will ensure that hard disks for data recording are separate / independent from OS installation
7. The storage device should be capable of providing the required throughput (bits per second) as required for the project. If network storage is used, recommended configuration is through iSCSI interface.

Notes –
(a) There should be no video monitoring (video viewing) happening on server. Server should run in optimized mode, after the settings are done. All video monitoring is expected to be from client computers,
(b) If video monitoring is expected on server computer, it is recommended to add one more client computer, physically placed near the server computer. Client computer should do the video monitoring.

(B) Video Analytics Server

For managing cameras supporting dual streaming (for camera resolutions up to 2 MP)

1. If video analytics processing is also needed, separate servers need to be allocated for VA processing.
2. There should be 1 server per 40 cameras for VA processing, server hardware requirements would be same as those described for '(A) VMS Server'
(This server will be able to manage both VMS and VA for 40 channels)

Notes –
(a) There should be no video monitoring (video viewing) happening on server. Server should run in optimized mode, after the settings are done. All video monitoring is expected to be from client computers,
(b) If video monitoring is expected on server computer, it is recommended to add one more client computer, physically placed near the server computer. Client computer should do the video monitoring.

(C) VMS Client 1

For viewing up to 8 cameras supporting dual streaming (for camera resolutions up to 2 MP), at a time, on single monitor

1. Processor – 4 core 2 GHz processor
2. RAM – 4GB or more
3. Gigabit network card
4. Graphics card 1 GB or more
5. Operating System - Windows 7 / Windows 8 / Windows 8.1 / Windows 10
6. Local hard disk - minimum 100 GB free drive space where Security Management System client software is installed; minimum 50 GB drive free space on system drive, if its different than the one where Security Management System client software is installed

Notes –
(a) The VMS client workstation hardware recommendations are NOT valid for cameras which require special processing at display time (eg 360 fisheye cameras with de-warping enabled at display). Client workstation hardware requirements will depend on the type of the cameras used and will be available from the camera manufacturer.

(D) VMS Client 2

For viewing more cameras supporting dual streaming (for camera resolutions up to 2 MP), at a time; up to 64 cameras

1. Processor – 8 core 2 GHZ processor
2. RAM – 8GB or more
3. Gigabit network card
4. Graphics card 4 GB or more.
   Note - The selected graphics card should also be validated for expected number of output display ports, type of output display ports, and compatibility with the selected monitors / display devices.
5. Operating System - Windows 7 / Windows 8 / Windows 8.1 / Windows 10 (64 bit OS version is recommended)
6. Local hard disk - minimum 100 GB free drive space where Security Management System client software is installed; minimum 50 GB drive free space on system drive, if its different than the one where Security Management System client software is installed

Notes –
(a) The VMS client workstation hardware recommendations are NOT valid for cameras which require special processing at display time (eg 360 fisheye cameras with de-warping enabled at display). Client workstation hardware requirements will depend on the type of the cameras used and will be available from the camera manufacturer.