



# com<sup>TM</sup> sur

the missing piece of CCTV

COM-SUR<sup>TM</sup> EMPOWERS PEOPLE TO ACHIEVE  
OPTIMAL OUTCOMES FROM SURVEILLANCE VIDEO,  
LEADING TO A SAFER WORLD.

We thank you for your interest in COM-SUR. Please go through the following workflow to install and configure COM-SUR.

## Installation

Installing COM-SUR is like plug and play. Before you proceed with the installation, do ensure that your computer matches the system requirements as given below. For best results, please use robust hardware for any version of COM-SUR.

SYSTEM CONFIGURATION				
Number of cameras and ‘Windows’	1 to 16 cameras in ONE ‘Window’ (in a 4 x 4 grid)	16 to 48 cameras in THREE ‘Windows’ (in a 4x4 grid for each ‘Window’)	48 to 64 cameras in FOUR ‘Windows’ (in a 4x4 grid for each ‘Window’)	64 to 128 cameras in EIGHT ‘Windows’ (in a 4x4 grid for each ‘Window’)
Processor	Intel Core i5 (latest gen.) with base frequency ≥ 3.6 Ghz	Intel Core i9 (latest gen.) with base frequency ≥ 3.6 Ghz	Intel Core i9 (latest gen.) with base frequency ≥ 3.6 Ghz, <u>OR</u> Xeon Bronze 3204 (latest gen.) with base frequency 1.9 Ghz	Intel Xeon Silver 4210R (latest gen.) with base frequency 2.4 Ghz
Memory	8GB RAM	16GB RAM	32 GB RAM	32GB RAM
Graphic Card	On-board graphics card	On-board graphics card	Nvidia Quadro P2200	NVIDIA Quadro P5000 or AMD Radeon Pro WX 9100
Recommended Operating system	Win 10 Pro/ Win 11 Pro/ Windows Server (2016/2019)	Win 10 Pro/ Win 11 Pro/ Windows Server (2016/2019)	Win 10 Pro/ Win 11 Pro/ Windows Server (2016/2019)	Windows Server (2016/2019/ Datacenter)
Estimated range of network bandwidth (considering the total bandwidth needed for camera, VMS, and storage)	53-240 Mbps	240-740 Mbps	740-980 Mbps	980-2960 Mbps
	Note:  Please refer to point no. 2 below for more details on the network bandwidth estimation.			
Hard Disk	Rotational speed	Space needed for COM-SUR installation	Space needed for storing the screenshots captured by COM-SUR	
	10000 RPM	Minimum 200MB (recommended 500MB)	Minimum of 750GB to store screenshots of ONE ‘Window’ for approximately 30 days. Minimum of 6TB to store screenshots of EIGHT ‘Windows’ for approximately 30 days.	
	Please refer to point no. 4 below for more details on the hard disk recommendation.			

Important notes:

- 1) The sizing for the processor, memory, and graphic card is approximate in nature and will also depend on the camera/VMS/NVR/DVR being used. Therefore, please confirm these with the VMS maker, your system integrator/IT team before proceeding.
- 2) The network bandwidth estimation is based on the consideration that the average bandwidth for each camera is 15 Mbps. In reality, the actual bandwidth usage of each camera can vary depending on factors such as camera resolution, frame rate, and compression settings. For example, for 16 cameras, the estimated bandwidth would be  $16 \times 15 = 240$  Mbps. Therefore, please confirm the bandwidth requirements with the VMS maker, your system integrator/IT team.
- 3) The choice of the Operating System may depend on various factors and hence it is recommended to check with the VMS maker whether the VMS is compatible with the OS.
- 4) The above hard disk recommendation is based on the consideration that the average size of each screenshot is approximately 300kb on a full HD monitor. The screenshot size may vary depending on several criteria such as the number of cameras, image complexity, screen resolution, etc.

## SOFTWARE

Software (for certain features)	Microsoft Office 2013 or above (preferred), Adobe Reader, Windows Media Player.
Miscellaneous	Supported Browsers - Google Chrome, Mozilla Firefox Minimum Screen Resolution - 1280 X 768

Notes:

1. Depending on the number and type of cameras, and the existing IT infrastructure, you will need to consult your system integrator/IT team/computer installer to suggest other requirements like the network infrastructure and so on.
2. Where relevant, you must ensure that you are able to open multiple 'Windows' of the VMS /Browser/Media Player on the computer on which COM-SUR is installed. A 'COM-SUR compliant' VMS will be able to do this.
3. In case of more than 32 cameras, it is recommended to use a COM-SUR compliant VMS instead of a browser for better performance.

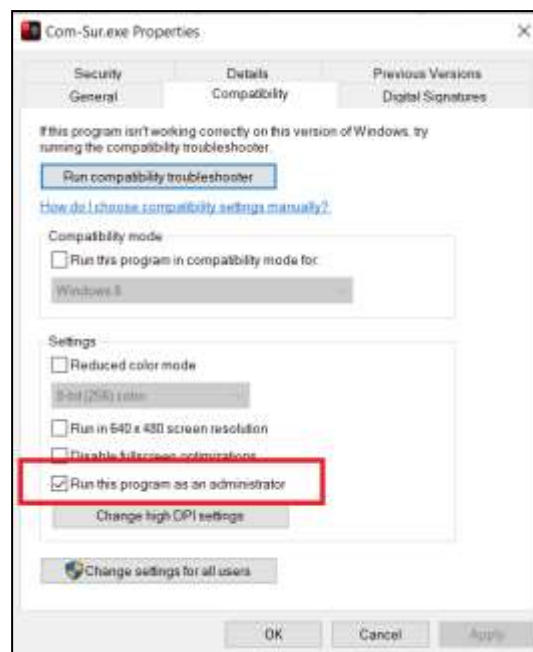
4. It is not recommended to display more than 16 cameras in one 'Window'. While COM-SUR does not prevent you from displaying more than 16 cameras, for best results during the auditing process, 16 cameras or lesser are ideal.
5. You must have administrator rights/privileges to install as well as to run COM-SUR for the first time.
6. In case there are multiple programs/applications running concurrently along with COM-SUR, COM-SUR may not perform optimally. Also, the performance of COM-SUR will vary depending on the system configuration.
7. The system configuration and storage space requirements will increase in case you are using a 4K monitor.

#### Steps for Installing COM-SUR

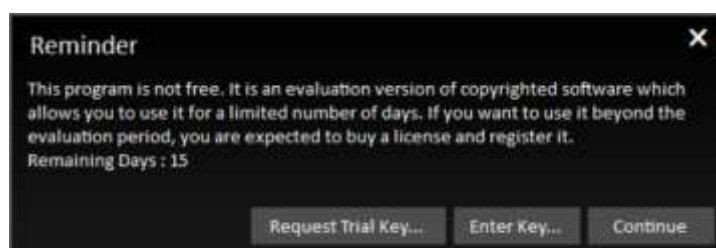
1. Please ensure that you have Administrator **Rights/Privileges** on the computer where you will be installing COM-SUR.
2. Once you download the setup zip file from the respective download link provided to you, please extract the same.
3. The extracted folder contains a file named '**setup.exe**'. Right click on the same. In the ensuing right click menu, select the 'Run as administrator' option.
4. Then follow the instructions as given in the subsequent screens.

### 15-day trial

1. Once COM-SUR is installed, launch it in the **administrator** mode. To do so, right-click on its shortcut and in the ensuing menu, select the 'Properties' option.
2. The **Properties** dialog box will appear. Here, go to the **Compatibility** tab and check the checkbox 'Run this program as an administrator' and click **OK**. (Please see below screenshot for reference). This is a one-time activity.



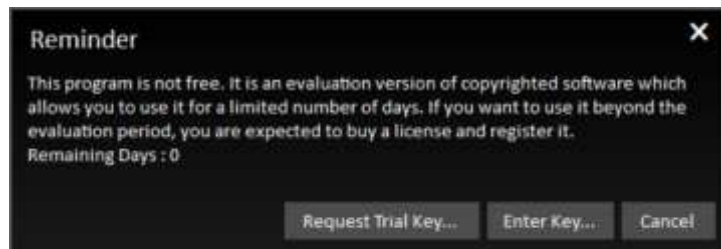
3. Now double click on the COM-SUR shortcut. The 'Reminder' dialog box is displayed (please refer to the below screenshot).



4. The 'Reminder' dialog box will display the 'Remaining Days' as **15** indicating that COM-SUR will work for a trial period of 15 days without any license key. In this case, the screenshots captured by COM-SUR will display the '**COM-SUR<sup>™</sup> TRIAL VERSION**' watermark. Once the 15-day trial period has expired, you can request for a license key as per the following steps.

### Steps to request for license key for COM-SUR

1. Double click on the COM-SUR shortcut. The '**Reminder**' dialog box is displayed (please refer to the below screenshot). Here, click the '**Request Trial Key**' button.



2. The '**Request Trial Key**' dialog box is displayed (please refer to the below screenshot). Here, please enter the details in the '**Name**' and '**Company**' fields. The **Hardware ID** of the computer will be displayed by default.



3. Then, click the '**Copy Details**' button. Open your e-mail client and paste the details in the body of the e-mail and send it to us.

### Steps to activate the License Key for COM-SUR (License Key details are sent via e-mail)

1. Close the COM-SUR exe and then re-launch the same in the **administrator** mode.
2. The '**Reminder**' dialog box will appear. Here, click the '**Enter Key**' button.
3. Enter the relevant details in the respective fields as has been provided to you via e-mail:

Name: XXX

Company: XXX

No. of Windows: X

Key: XXXXX

Alternate method to activate the license key

In case you face any issues, you can also choose to activate the license key by this alternate method as follows:

1. Close the COM-SUR exe.
2. Please save DAT file for the license key as provided to you via e-mail, on your computer. Please copy the same to this folder location **C:\Program Files (x86)\Hayagriva\Com-Sur (respective version)**.
3. Then re-launch COM-SUR in the **administrator** mode.

Checklist of settings to be done for optimal performance of COM-SUR

In order for COM-SUR to perform optimally, you must customize the following settings in your computer.

Setting	Done (Y/N)
<b>Power Options</b>  <b>Power mode</b> (this can be found in Windows OS settings at <b>System&gt; Power &amp; Battery</b> ) - Here ' <b>Best performance</b> ' should be selected.  <b>Power Options - Plan Settings</b> (These can be found in <b>Control Panel\All Control Panel Items\Power Options\Edit Plan Settings</b> )  <b>Turn off the display:</b> ' <b>Never</b> ' should be selected.  <b>Put the computer to sleep:</b> ' <b>Never</b> ' should be selected.  Under <b>Plan Settings</b> , click the ' <b>Change Advanced Power Settings</b> ' and customize the following settings:  <b>Hard Disk</b> - Turn off hard disk after - ' <b>Never</b> ' should be selected. <b>Sleep</b> - 1) Sleep after - ' <b>Never</b> ' should be selected. 2) Hibernate after - ' <b>Never</b> ' should be selected.  <b>Processor Power Management</b> - 1) Minimum Processor State - ' <b>100%</b> ' should be selected. 2) Maximum Processor State - ' <b>100%</b> ' should be selected.	
<b>Screen Saver</b>  The Screen Saver should be disabled. i.e., the ' <b>None</b> ' option should be selected in the respective dropdown.	



### Windows Updates/Other Updates

When your Computer is online, the Windows Operating System and/or other Applications check for updates and install the same. In some cases, this may require you to restart your computer. Please make the **appropriate** selections in the **Windows Update Settings** of your computer and in the respective applications to ensure that the updates restart your computer **only at a time as specified by you**.

### Anti-virus/Firewall

Add COM-SUR in the list of '**Allowed Programs/Exceptions**' in the respective **Anti-Virus/Application Firewall Program** installed on your computer.

### After installation and key activation

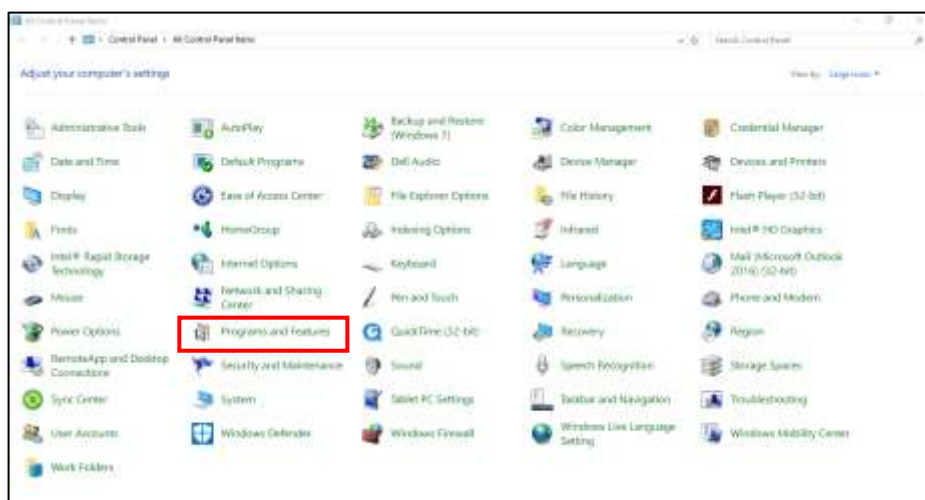
#### Enabling Microsoft Message Queue (MSMQ) Server

After installation and key activation, when you launch COM-SUR for the first time, you will see the following message.

Please wait... Enabling 'Microsoft Message Queue (MSMQ) Server'.

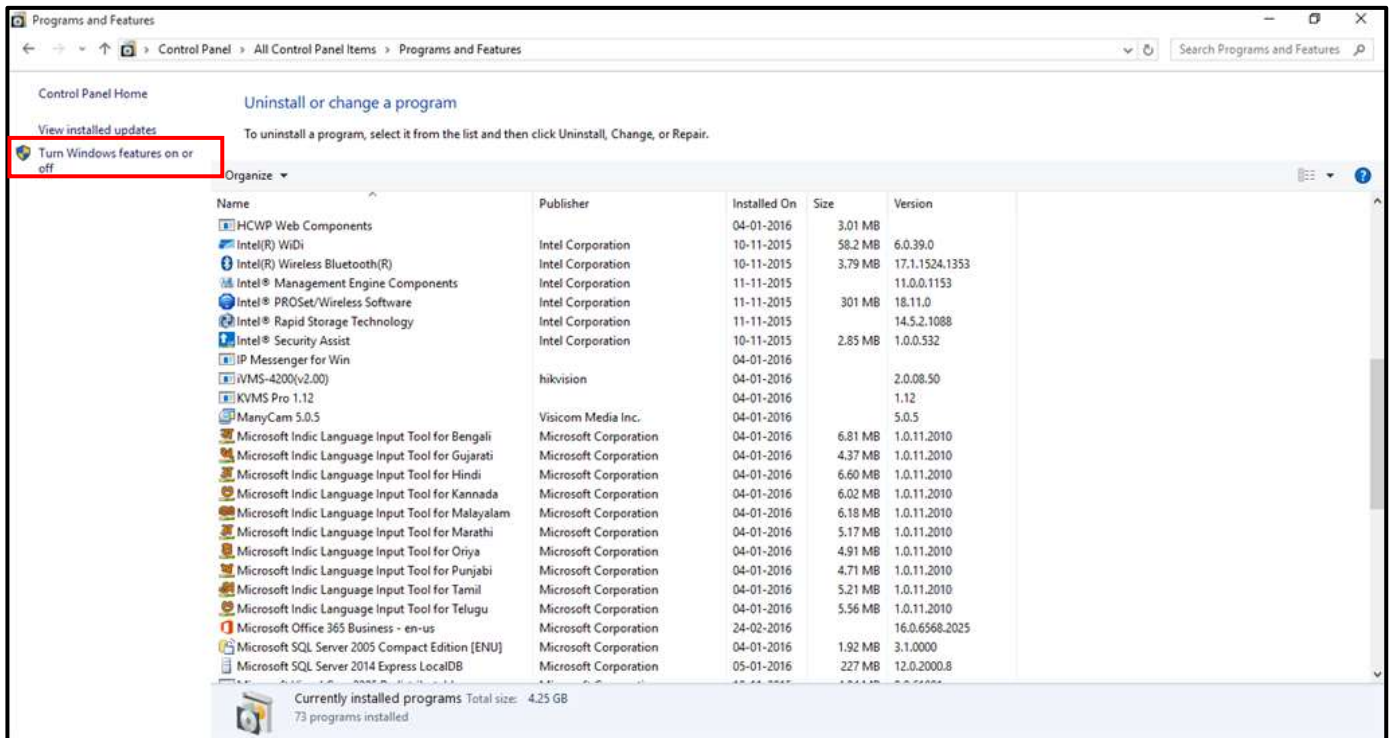
Do wait for this process to complete. In case this **does not** complete **automatically** (which is unlikely in most cases), you will need to **manually** enable the '**Microsoft Message Queue (MSMQ) Server**' as follows.

1. Navigate to the **Control Panel** of your computer. Here, click the **Programs and Features** option as shown.

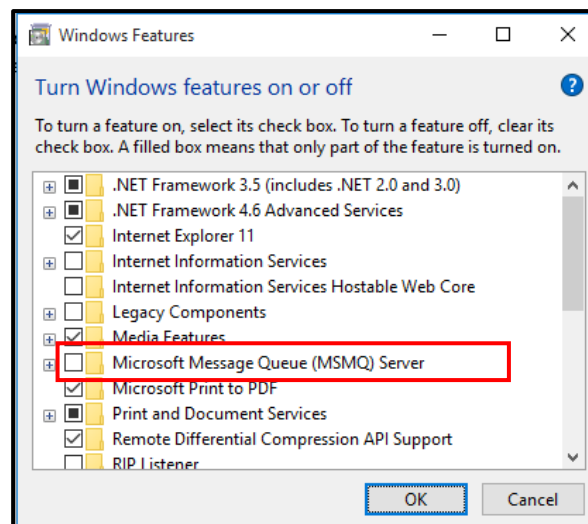




2. The **Programs and Features** dialog box appears. Here, click the **Turn Windows features on or off** option as shown below.



3. The **Windows Features** dialog box appears as shown. Here, check the checkbox next to the **Microsoft Message Queue (MSMQ) Server** option. Click **OK** and restart your computer.



### Conclusion

We hope that you have gone through and understood the entire workflow of COM-SUR installation and configuration.

Once everything is done, we request you to kindly certify the details as mentioned in the document titled '**COM-SUR Installation and Configuration Report**' which can be downloaded from the link below, and e-mail the same to us for our records. Please note that you will need to do this activity for each computer on which you install COM-SUR.

### Link

<https://www.comsur.biz/COM-SUR - Installation and Configuration Report - Template no. 3.4.pdf>