

COMTM SUR

the missing piece of CCTV

COM-SURTM EMPOWERS PEOPLE TO ACHIEVE
OPTIMAL OUTCOMES FROM SURVEILLANCE VIDEO,
LEADING TO A SAFER WORLD.

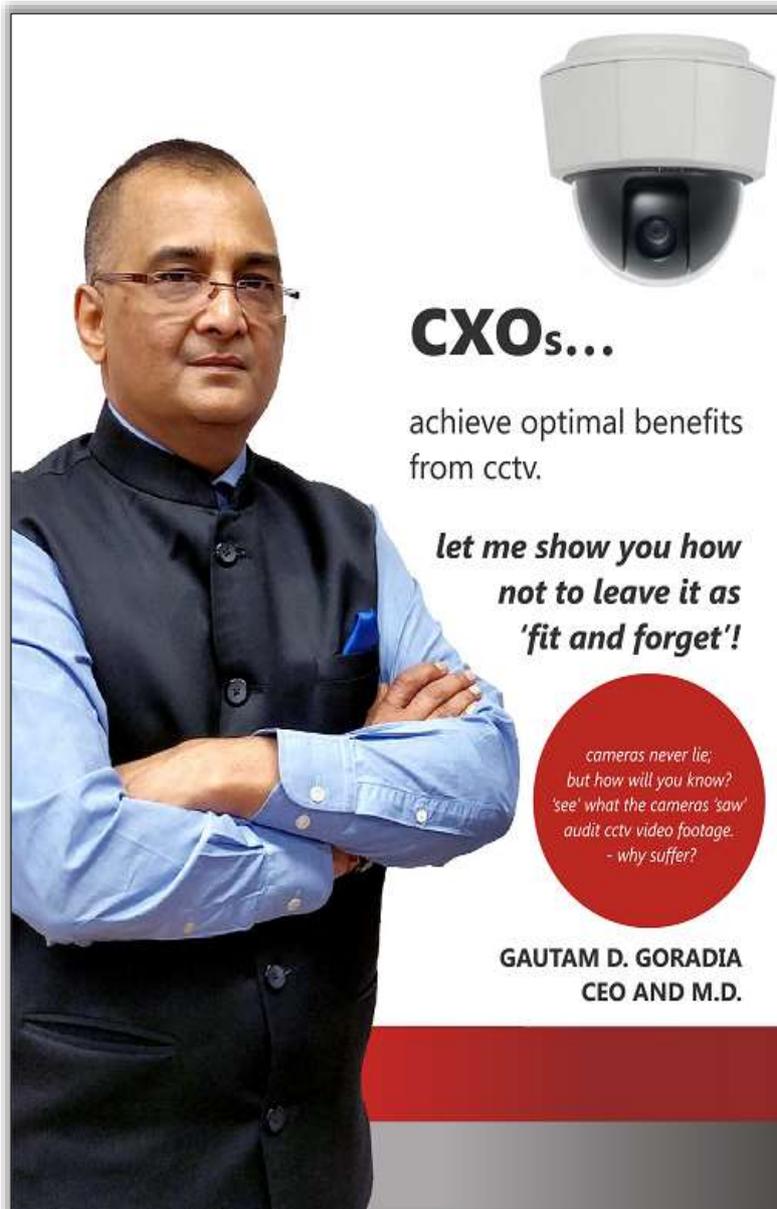
Introduction to the profitable COM-SUR™ Channel Partner Program

Dear Partner,

Thank you for your interest in COM-SUR.

Let us work closely in order that your prospects and customers achieve optimal outcomes and actionable insights from CCTV/video surveillance and continue to remain a satisfied lot.

We request you to study this document carefully. Please do not hesitate to ask for clarifications at any time. It is our intention that all parties gain from this relationship.



CXOs...

achieve optimal benefits
from cctv.

***let me show you how
not to leave it as
'fit and forget'!***

*cameras never lie;
but how will you know?
'see' what the cameras 'saw'
audit cctv video footage.
- why suffer?*

**GAUTAM D. GORADIA
CEO AND M.D.**

COM-SUR - The missing piece of CCTV

“Convert garbage into gold!”

Before you read on, we would recommend that you look at these crisp videos:

Overview – English

<https://www.youtube.com/watch?v=JpQyknCRbgY>

Overview – Hindi

<https://www.youtube.com/watch?v=SehkECMqdn4>

Demo – English (Indian)

<https://www.youtube.com/watch?v=hgfxn-xPr4>

Demo – Hindi

<https://www.youtube.com/watch?v=TGNDngc96mM>

The ‘COM-SUR Way’

CCTV surveillance is now a part of the overall security apparatus across the world. However, despite the increase in number of cameras, crime, fraud, losses, process violations, traffic violations, wastage, and many other problems continue to take place. This clearly indicates that CCTV by itself is not enough. It must not remain as *'fit and forget'*. That is why we built COM-SUR, the world's *only* CCTV video footage *auditing, smart backup, and standardized intelligent reporting* software, the *missing piece* of CCTV. COM-SUR is a complete *workflow* that empowers people to gain *optimal value* from CCTV, leading to a safer world.

COM-SUR's use cases range from an airport to a zoo (A to Z). COM-SUR is a great investigation and productivity tool for the police/law enforcement agencies/defence forces as well, to work with live/recorded CCTV video footage (including photos and images). COM-SUR works with all types of existing cameras/VMS/video analytics (brand/type agnostic) as a 'platform' to standardize several activities related to CCTV.

It is our belief that just like *Google* was the missing piece of the internet, COM-SUR is the missing piece of CCTV.

What are the benefits that people can achieve with the dedicated use of COM-SUR?

COM-SUR helps people to *'unlock'* the information that remains *'hidden'* in surveillance video, leading to:

1. Improved homeland security, prevention of crime, fraud, loss, and faster solving of crime.
2. Threat and Hazard risk identification /mitigation, improvement of ops. efficiency, processes, business continuity, root cause analysis, good manufacturing practices, and total quality management efforts.
3. Improvement of employee performance, customer satisfaction and sales.
4. Enhancement of compliance (including compliance of environment, social, and governance issues) and health and safety matters.
5. Huge reduction of data size and inexpensive disaster recovery mechanisms.

6. Ease of investigation, forensics, debriefing, gaining situational awareness and actionable intelligence efficiently.
7. Standardizing reporting and gaining business intelligence.
8. Taking regular corrective and preventive action for continuous improvement.

Force Multiplier

One can think of COM-SUR as the *MS Office* for CCTV. Office is a great productivity tool for people to write documents, emails, create presentations, and so on. However, *it ends there!* While Office makes the activity possible, it *cannot think or imagine 'what'* needs to be written in a document, email, or a presentation. People have to do this *themselves*.

Another case in point is the smart phone, which people use to shoot *hundreds* of photos. Think of the *first thing* that people do after shooting photos; they *swipe* their screens to '*see*' the results. If there are 100 photos, people will swipe their screens 100 times to see *which* photos are good, *which* are bad, *which* can be shared, and *which* should be deleted. While the smart phone can make it easy to swipe and review /analyze/audit the photos, it *cannot* decide the *next action*. People have to do this *themselves*.

Straightforward and uncomplicated

We believe that *complex problems* do not need *complex solutions*. However, to achieve *optimal* results from *any* technology, user *expectations* must be in order. Technology must *assist* the user in performing tasks in an *easier* and *standardized*

manner, leading to *better decision making*, which is what COM-SUR does unparallelly.

New business opportunity and profession CCTV video footage auditors and investigators

With COM-SUR, you can offer a CCTV video footage auditing service to your customers. Imagine the benefits they will achieve when the daily audit reports that you provide enhance their profits (what with lesser losses and crime due to periodic auditing of the footage), improves their operational efficiency, health and safety issues, etc., all of which that will lead to continuous improvement.

Our CCTV video footage auditing courses

One of the pre-requisites of becoming a COM-SUR Channel Partner is to take our CCTV video footage auditing and investigation courses. You can choose to take these courses from any of our partners. Here are the details:

OVERVIEW

<https://www.comsur.biz/COURSE - OVERVIEW - Template no. 7.10 - CCTV VIDEO FOOTAGE AUDITING AND INVESTIGATION COURSE.pdf>

FUNDAMENTAL MODULE

<https://www.comsur.biz/COURSE - FUNDAMENTAL MODULE - Template no. 7.11 - COURSE - CCTV VIDEO FOOTAGE AUDITING AND INVESTIGATION COURSE.pdf>

FOUNDATION MODULE

[https://www.comsur.biz/COURSE -
_FOUNDATION MODULE -
_Template no. 7.12 -
CCTV VIDEO FOOTAGE AUDITING AND INVESTIGATION COURSE.pdf](https://www.comsur.biz/COURSE-_FOUNDATION_MODULE_-_Template_no._7.12_-_CCTV_VIDEO_FOOTAGE_AUDITING_AND_INVESTIGATION_COURSE.pdf)

ADVANCED MODULE

[https://www.comsur.biz/COURSE -
_ADVANCED MODULE - Template no. 7.13 -
_COURSE -
CCTV VIDEO FOOTAGE AUDITING AND INVESTIGATION COURSE.pdf](https://www.comsur.biz/COURSE-_ADVANCED_MODULE_-_Template_no._7.13_-_COURSE_-_CCTV_VIDEO_FOOTAGE_AUDITING_AND_INVESTIGATION_COURSE.pdf)

PARTNERS

[https://www.comsur.biz/Course Dissemination
Partners.pdf](https://www.comsur.biz/Course_Dissemination_Partners.pdf)

Affiliate program

Why not offer these courses to others? Join the affiliate program on Udemy and create a new revenue stream for yourselves.

<https://www.udemy.com/affiliate/>

Who does COM-SUR benefit?

One and all. Look at the various roles that different heads play at an organization. There is a benefit for everyone, waiting to be discovered from the footage.

benefits? - for?

YOU	BENEFITS
CEO	always remain better aware of your business and brand.
CFO	reduce shrinkage and insurance costs. improve bottom line.
CHRO	improve employee performance. offer rewards.
CMO	improve customer satisfaction, loyalty, and sales.
CQO	enhance quality through visual control and operational efficiency.
CTO	get better roi. reduce storage and bandwidth costs.
CAIO	use data for a.i. and machine learning.
CRO	mitigate risks and ensure business continuity.
CCO	ensure that compliance issues are in order.
CVO	enhance vigilance to prevent fraud and corruption.
CSO	ensure health and safety of man and machine.
CXO	irrespective of your role, just use your imagination and the video!

use the past to improve the future!

Introductory pitch and marketing

Next time someone asks you: "What do you do?" Consider this answer:

"We are distributors of the world's only CCTV video footage auditing software that empowers people to achieve optimal outcomes from CCTV and ensures that CCTV cameras do not remain as fit and forget ". You may also speak about how COM-SUR hugely reduces the data size, creates a very cost-effective disaster recovery mechanism, and standardizes incident reporting. Try it out. Make this as an introduction during networking meets and share your COM-SUR business card. This is a very powerful ice breaker and begets a lot of respect. Of course, you can improvise the introduction depending on who you are speaking to.

Discovering and approaching an opportunity/prospect

Click the link below to read a detailed paper on the subject:

https://www.comsur.biz/Discovering_and_approaching_an_opportunity_or_prospect.pdf

"CCTV is not enough – We make it work for you – The COM-SUR way!"

The following questions and answers are not exhaustive. They are the most likely questions that will immediately come to your mind, and in the minds of prospects and customers. There will be other questions as well. These have been covered in the topic on 'Objections'. However,

should you have any additional questions, please feel free to write to us. Of course, the internet is always a great guide to look for answers to generic questions.

Q1. Can you explain what you mean by "CCTV is not enough – we make it work for you!"?

The answer is simple. If CCTV was enough, why do crime and process violations continue to take place in areas that are covered by CCTV? We hear of several cases where a scene of crime was covered by CCTV; yet the crime took place. It therefore proves that while CCTV is an absolute must, users need to make it work for them, by doing just a little 'more'.

Q2. Can you explain what is the 'more' that needs to be done?

The first 'more' – 'audit' CCTV video footage as a standard operating procedure; daily.

Users of CCTV must make it an SOP to audit or review CCTV video footage daily. Research indicates that post-facto surveillance is as important as real time surveillance. Post-facto surveillance helps users discover exceptions that can be easily missed out by algorithm-based solutions. For example, algorithm-based solutions will hardly be able to discover exceptions like a child at school being at a location with a stranger who has ulterior motives, recess before a terror attack, sales staff not paying attention to prospects, a guard who is sleeping on duty, or even issues like spitting and excessive coughing which have suddenly become critical due to the COVID-19 pandemic. It is only when the human mind and human eyes are involved, can such

exceptions be discovered. Remember – cameras have lenses; humans have 'eyes'! Webster's dictionary defines 'audit' as 'a methodical examination and review'. Also, there is an adage that says, "cameras never lie"; but in order to validate this, one will have to 'see' what the cameras 'saw'! This is what auditing CCTV video footage is all about. Just as books of accounts or processes are audited, and irregularities /exceptions that are found are used to prevent future events, auditing of CCTV video footage as a standard operating procedure will also deliver the same results. Unfortunately, while CCTV video footage contains lots of information, we are all 'losing' it, instead of 'using' it, leaving CCTV to remain as 'fit and forget'. Most users look at CCTV only when something goes wrong. But how can one be sure that nothing went wrong? Anything that remains un-reported, or under-reported will never come to light.

Q3. You have a valid point; but wouldn't real-time surveillance also discover the above issues?

Yes, of course this is true; but only partially. Live surveillance has many challenges including the challenge of video blindness. Studies have shown that after 22 minutes of continuous video monitoring, a CCTV operator will often miss up to 95% of screen. The chances, therefore, of missing several kinds of exceptions are very high. Other challenges include poor operator attention span, bias, and so on. Auditing on the other hand is a very dedicated and systematic process that helps unlock the 'hidden' information in the footage. As an addition to real-time surveillance, auditing CCTV video footage as a standard operating procedure will have a much better chance of

discovering exceptions missed during real-time surveillance. Finally, one needs to consider as to how many establishments are likely to be monitoring video surveillance 24x7?

The second 'more' – backup footage 'smartly'.

Most backup of CCTV video footage happens on the recording device i.e., the DVR/NVR /Servers/Edge. There have often been cases where, while the video feed is seen, the backup device did not record at all. Also, there have been several cases where criminals have decamped with the recorder itself after committing the crime. If this happens, how will the evidence be available to the police? Similarly, there have been cases of deliberate destruction of the recorder, or failure, or plain human error. Since the percentage of users that back up CCTV video footage in the cloud is very small, these issues can cause a lot of pain. Also, let us remember that when you back up CCTV video footage at remote locations, there will be huge costs of bandwidth and storage.

Further, one must not forget that any backed-up data must be easily searchable and retrievable; else, it is going to be a nightmare finding the relevant video. Again, we are all aware that until this day, the industry has not been able to set a 'standard' as to the duration of the backup. As per our findings, backup can be as little as one day to as much as three years. However, what happens in a case where you need to refer to video beyond these periods? Or, with a backup of just one month of video from thousands of cameras, you would shudder to think of finding the video clip that is needed. It's an absolute needle and haystack story. The 'smart' way to

backup therefore must be a way where relevant data can be tagged and kept as part of an institutional library. This 'smart' way must also ensure that the backup for the purpose of disaster recovery and data redundancy, occupies very little storage space.

Let us explain this in detail.

The uniqueness of COM-SUR's backup is that irrespective of the FPS of the video feed, COM-SUR captures the screenshot of the video feed at every one second (or even faster); i.e., COM-SUR captures the consolidated 'moment' of 'that' one second (think of this one 'second' as a 'finished product', which comprises of multiple 'spare parts' (I, P, and B frames). This means that the 'unnecessary' frames have been taken away (not literally) without missing anything, so to speak. This method reduces the size of the data drastically. Also, since 16 cameras are generally viewed at a time, there is further reduction of the backup size since the screenshot would have captured all 16 cameras as a single image. The data size of the raw video depends upon parameters such as the camera resolution, frame rate, video quality, as well as the video compression technique. Taking these into consideration, the data size of the raw video can be hundreds to thousands of % higher (depending on the camera resolution and so on) when compared to COM-SUR's backup size.

The third 'more' – standardize audit and incident reports.

Audit findings or incidents (whether criminal or not) do not differ by geography. An incident in India is no different than an incident in any

other part of the world. If so, then why should incident report formats be different? As you know, every 'incident' requires answers to the basic 5Ws (what, when, where, why, who) and 1H (how). There should therefore be at least a 'minimum' standard/template for audit/incident reports. Once this minimum standard/template has been set, everyone "speaks the same language", which takes away all the confusion. Besides the fact that by following a 'standard', one can gain trends and patterns from historical data. This allows stakeholders to take better informed and quicker corrective and preventive action leading to continuous improvement.

Q4. So far, everything is clear. Now tell us how does 'COM-SUR' address these problems?

Let us break this into 3 parts:

a. Daily auditing of CCTV video footage as an SOP.

b. Backup at remote locations.

c. Standardized audit/incident reports.

Once you install COM-SUR on a Windows computer, and access the video feed, you can program COM-SUR to start taking screenshots at intervals as maybe determined by you. The video feed can be a single tile, or up to 16 tiles (or more) in one screen. You can set the time between two screenshots depending upon the criticality of the area being monitored.

For example, if you are monitoring an area with lots of movement, you may want to take a screenshot at an interval of every one second (or even faster). Each time a screenshot is taken by

COM-SUR, it is saved at a location as determined by you. This could be on a computer at a remote location, a separate hard drive, or even the cloud (Microsoft OneDrive, Google Drive, Dropbox etc.). Once you have these screenshots, COM-SUR offers you multiple playback mechanisms which lets you audit hours of video in minutes. Also, once you know 'what' to look for ('situational awareness'), you will begin to 'discover' exceptions/items of interest with ease. You can even choose to skip some seconds depending on what area you are monitoring. For example, if you are auditing screenshots related to the night-time, you may decide to skip 2-3 seconds, or simply go through the screenshots using the 'glider' mechanism that COM-SUR provides. This will give you a good sense of what's been happening.

With COM-SUR, you may be able to audit 24 hours of screenshots in as little as 24 minutes so to speak and get a helicopter view of what's been happening. And of course, if you find an exception/item of interest, COM-SUR allows you to flag the same and even convert the screenshots into a video for ease of sharing and evidence.

Finally, depending on the nature of the exception, you can decide to create an audit/incident report. As mentioned earlier, COM-SUR's audit/incident reports cover the 5W's + 1H and are almost auto-generated in PowerPoint. COM-SUR also makes it easy to embed relevant screenshots, as well as the video clip within the PowerPoint that acts as a complete audit/incident report.

Q5. You maintain that COM-SUR's incident reports will help solve crime faster. Can you throw some light on that?

Imagine a bank robbery. The bank manager phones up the local police station, and the investigating officer (IO) basically asks questions which hover around the 5Ws and 1H. The IO will also want to know if the bank has been able to trace the relevant CCTV footage (this can take hours); and in most cases, the IO will take the CCTV footage or the recording device to the police station to carry out further investigation. It is not uncommon to hear of cases where, because of codec issues or proprietary formats the video footage will not play at all. All this causes loss of precious time.

Now imagine if the bank has COM-SUR working for it. The manager can quickly find the relevant screenshots, convert them into a video, and embed the same in an incident report that is created in PowerPoint. This report can then be e-mailed to the IO, who in turn can share it across suburbs, cities, states, and even countries depending on the gravity of the crime. Since COM-SUR's incident reports are created in PowerPoint, they are extremely easy to access on any mobile device. Again, because of standardization, an incident report sent from one place to another place has no confusion because the receiving party knows what to look for, and, where. The very fact that the entire story of the incident has been explained with the relevant screenshots and the video clip hastens up the process and saves a lot of burden for a police officer to explain the case to his/her counterpart. The speed at which things

can be done using COM-SUR will, in our opinion helps solve crime faster.

Q6. In a certain sense, COM-SUR seems to be reducing the burden of the police. Right?

Absolutely. If all users of CCTV audit their own CCTV video footage as a SOP, they all become extra 'eyes' for the police (crowd sourced surveillance). This leads to automatic prevention and enhanced homeland security. With the incident report in PowerPoint, crime can potentially be solved faster. And, for the police themselves, COM-SUR is a great tool to increase their efficiency. Take the case of the Boston bomb blast. In this case (and several such cases), the police had to watch thousands of hours of video from various sources.

With COM-SUR, they can aggregate relevant parts of each video (time-synced), and at the click of a button, convert the same into a PowerPoint for ease of sharing with other law enforcement agencies. Also, if data is stored in the COM-SUR 'way' by one and all, i.e., in the form of screenshots, it becomes very easy for the police to retrieve the same, without worrying about different systems, codec issues, and so on.

Q7. Let's go back to comparing algorithm-based exception findings with human intervention. Don't alarms do what COM-SUR does?

As mentioned earlier, some types of exceptions will never be discovered by algorithm-based systems. Solutions that can detect whether an alarm has been raised due to an intruder or a known person, or an animal, are yet to be

perfected. Let us not forget that all such solutions require very heavy investments both in terms of hardware and software. As opposed to this, see the efficiency with which COM-SUR makes discovery of exceptions possible, and addresses common problems across all types of users of CCTV. Also remember that the market size for installations of tens of cameras is far larger than the market size for installations of thousands of cameras. Lastly, please remember that even when algorithm-based systems throw up alarms, finally the human has to take the call. Why not then make everything easy and standardized for humans, for more efficient working and better results?

Q8. Does COM-SUR work with all brands of cameras? Does it work with both analog and IP cameras?

Yes. Think of COM-SUR as a 'layer' over any video feed (live or recorded). As long as you bring the video feed from CCTV cameras of any brand/type (analog, HD, IP) or through any video management system to your computer on which COM-SUR is installed, COM-SUR will take screenshots, store them remotely, (even help you tag them for ease of future search), help in quick and efficient audit, create audit/incident reports efficiently, and deliver trends and patterns based on historical data. COM-SUR also works with feeds from webcams/drones/UAVs/ body worn cameras/mobile phones.

COM-SUR, therefore, is a 'friend' to all types of cameras and video management systems, irrespective of brands.

Q9. Why now?

Think of the terror attacks in Vienna, Kabul, France, Sri Lanka, New Zealand, Westminster, Manchester, London, Dhaka, Nice, Paris, Munich, Orlando, Turkey, Brussels, Pathankot, Mumbai. We are living in dangerous times. After Peshawar, there were ever more threats to vulnerable institutions like schools and religious establishments. Advisories continue to lay greater importance on more deployment of CCTV and physical security. Both come with their own challenges. COM-SUR can help overcome these challenges and enhance security.

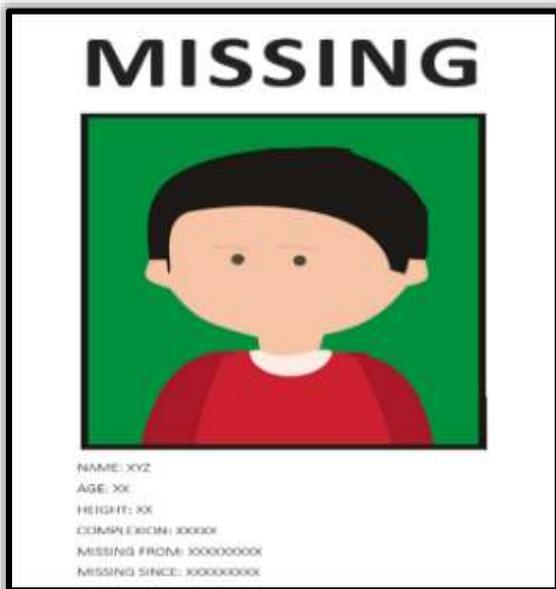
The Peshawar school re-opened, and the Army was sent to guard it. 700 Jewish schools in Paris were being protected by the police. For how long can the army or police continue this? Part of the solution therefore is for stakeholders to take all possible measures themselves to enhance their safety, keeping costs and complexities of technology in mind. One must also not forget that millions of children are abused at schools globally. Auditing CCTV video footage daily as a SOP, can prevent many such incidents. And finally, who expected that the world would almost stop because of COVID-19? COM-SUR is a must-have tool to monitor several compliance issues related to such pandemics. With reference to COVID-19, we need to think beyond masks and social distancing. Incidents like spitting and excessive coughing, which were never considered to be 'dangerous', have suddenly become so. Constant auditing of the CCTV footage will throw up all such issues.

Q10. What else does COM-SUR do?

(1) COM-SUR acts as a great aggregator of images/photos/screenshots. This makes it very easy to aggregate relevant screenshots from multiple video sources as well as from photos taken by a camera/mobile phone. Such efficient aggregation, as well as all of the 'next steps' that COM-SUR offers become very essential in cases like the Boston Marathon/Toronto Riots, where multiple law enforcement agencies had to go through thousands of hours of video/photos.

(2) COM-SUR creates 'visual lists' (contact sheets/posters) in Word/PDF. Visual lists can be very useful tools to share large number of photos, along with relevant information like contact details etc.

For example, lists of staff (guards on duty, kids and teachers at a picnic etc.), to details of suspects at various borders and entry points. Think of different law enforcement agencies sharing information of terrorists for example, with various countries in one standard format, along with information that can easily be edited by the receiving authorities to suit their language and other needs.



Q11. Tell us something about the bandwidth that will be needed. Also, tell us about the data size that COM-SUR will occupy as opposed to the data size of my video feed.

Bandwidth

Let us first understand that COM-SUR does not require any additional bandwidth to capture screenshots of the video feed. The video feed is

only being streamed and not downloaded. This means that in any case, if you were to bring the video feed on a monitor using the internet, it would consume the same amount of bandwidth. By taking screenshots, COM-SUR is offering you great value of remote backup and the ability to quickly audit what has been backed up.

Depending on how you are accessing the video feed, will decide whether you will be consuming internet bandwidth. If you are accessing the video feed through a LAN (local area network) or if you have connected your DVR/NVR directly to your computer by means of a cable, then, there is no question of consuming internet bandwidth. In case you are accessing the video feed of a remote location via the internet/WAN (wide area network), you can access the video feed via the sub-stream mode and configure the same at 5-6 FPS (frames per second). This would still give you decent results of the screenshots. Further, in case your DVR/NVR/VMS/CMS supports 'zero channel encoding', you can configure the same in order to access the video feed of multiple cameras from a single channel (known as the 'zero channel'). This would considerably consume lesser bandwidth as opposed to accessing the video feed from multiple channels.

Further, it is imperative to understand that when the live video feed is streamed from cameras at a remote location, then there is an upload data usage from the respective cameras. If we consider a camera (analog or IP) having a D1 resolution and streaming at a rate of 15 FPS (frames per second), then the upload data usage per day approximately comes to 6.7 GB for that camera. This should not be a cause for concern in

case you have an unlimited broadband internet connection. In this case, after a particular amount of data usage, only the speed of the internet is reduced. The video feed will still be accessible in this case and would give you decent results of the screenshots. Also, in order to ensure that you are able to bring the video feed from multiple cameras without any interruption, it would be recommended, depending on the number and type of cameras, and your existing IT infrastructure, to consult your CCTV integrator/IT team /computer installer to suggest the appropriate PC hardware configuration, and other requirements like the network infrastructure and so on.

Data size

Click the link below to read a detailed paper on the subject:

[http://comsur.biz/Video_Data_Size_Reduction - The COM-SUR 'Way'.pdf](http://comsur.biz/Video_Data_Size_Reduction_-_The_COM-SUR_'Way'.pdf)

Q12. What is the market size for COM-SUR?

From A to Z (Airport to a Zoo). Airports, banks, commercial establishments, celebrities, defense establishments, educational establishments, factories, gyms, hotels, hospitals, housing complexes, jewelers, malls, oil and gas installations, nuclear plants, restaurants... the list is endless...and of course, law enforcement agencies themselves, who can be classified as the 'tip' of the pyramid. It is well known that law enforcement agencies need to share information (screenshots from

video are regularly released for public awareness, information etc.) as well as incidents amongst themselves all the time. Imagine how easy it would be if this sharing (of incidents) happens in one common format.

Imagine if relevant meta-data is shared between law enforcement agencies and collated at a common place like Interpol. The market size for COM-SUR therefore is truly global, and exceptionally large. With the amount of focus on homeland security, one of the largest prospects for COM-SUR would be governments themselves.

Q13. Do you have any use cases for specific verticals?

Yes. Detailed papers have been published for COM-SUR's utility value for each vertical. These can be downloaded from our website. <https://www.comsur.biz/usecases.html>.

Q14. What is the competition scenario for COM-SUR, who will it help, and how is it priced?

COM-SUR is a very holistic solution. Our research shows that there isn't a single technology that is even remotely close to COM-SUR.

As far as its utility value to users of CCTV is concerned, it will help any user, at any location, in any business vertical, to gain 'optimal outcomes' from CCTV. We strongly believe that without a solution like COM-SUR, users of CCTV are only fulfilling the first step, i.e., the installation of CCTV, and no more (fit and forget)! In a sense, therefore their efforts are incomplete!

As far as pricing is concerned, COM-SUR is very competitively priced, and has several versions based on customer needs.

Q15. Can you elaborate on this a little more? Is there absolutely no competition to COM-SUR?

As such, there is no direct competition. Video management systems like physical security information management systems (PSIMs), intelligence/investigation management systems etc., may offer some similar feature sets. However, as mentioned earlier, COM-SUR works as a 'layer' over any video feed and is a 'friend' to all cameras and VMS.

It may be worthwhile to mention that while competition may provide a comprehensive set of features for incident reporting and management, they are largely dependent on 'external' triggers/alarms raised due to video analytics. It is a known fact that a large percentage of these alarms are false, leading to false reporting, frustration, and disbelief in the alarms. More so, the above systems require a complex integration, and are often restricted to support cameras/recorder of a particular manufacturer. Lastly, large investments need to be made in procuring and installing the above systems, and considerable technical expertise is required. This restricts the market size. COM-SUR is easy to install (plug and play) and needs no physical integration with any camera/recorder. It helps gain intelligence from video, uncovering events that may not raise any alarms. It broadens the market; from a housing complex/small business to a nuclear plant and requires minimal investment.

COM-SUR, in fact, can complement competition, i.e., it would be useful even in cases where large establishments have deployed VMS, PSIM etc.

Q16. Can COM-SUR improve the quality of the images?

The screenshots that COM-SUR will take will represent the quality of your video feed and the resolution as set by you. Having said that, COM-SUR provides a set of useful forensic filters and false colors like adjusting the brightness and contrast, grayscale mode, heatmap and invert which would help improve the quality of the screenshots to a decent extent.

Further, COM-SUR will also assist you in editing the screenshots using tools that may be installed on your computer.

Q17. Can COM-SUR recognize faces /objects/motion? Does it have any AI/ML?

Future versions/special versions may offer such features. As far as 'artificial' intelligence (AI) is concerned, it is our belief that the definition of AI needs to be modified to Augmented Intelligence, where humans and machines work together for best results. Having said so, future versions may offer such features and/or integration.

In any case screenshots created by COM-SUR become relevant training data for AI/ML/DL models.

Q18. Does COM-SUR come in different versions?

Yes. As of date, there are 6 Versions.

1. HOME (for non-commercial use)
2. BASIC (this version is offered specifically for bulk sales to large entities like governments, large corporate organizations, conglomerates etc. and hence is not available for retail sales)
3. BUSINESS
4. PLUS
5. PRO
6. ULTIMA

Q19. What are the differences between the versions?

Click the link below:

https://www.comsur.biz/COM-SUR_Version_Comparison.pdf

Q20. What are the system requirements for running COM-SUR?

Click the link below:

https://www.comsur.biz/System_Requirements.pdf

Q21. What would happen if the computer on which COM-SUR is installed, itself gets stolen or is destroyed?

This is not a problem. Besides the 'primary' location (which is the computer on which COM-SUR is installed), COM-SUR offers the utility to store the screenshots at up to 5

secondary locations. For example, Azure, Microsoft OneDrive, Google Drive, Dropbox in real-time. Other services can be added as well.

Q22. One last question. Doesn't all this seem very different from what the surveillance industry is used to? And isn't all this making the user do more than what he is used to doing?

Doing this little 'more' may seem uncomfortable initially (that's why COM-SUR does all the hard work for you); but it is very effective and valuable. We believe that this is the only way to achieve optimal outcomes from video surveillance. Further, just because we are used to doing certain things in a particular way, doesn't mean that there isn't scope for improvement; and just because something seems uncomfortable doesn't mean that it should not be adopted. As long as something that you do delivers the outcomes that are important to you, you should not hesitate in its adoption.

The wonderful thing about COM-SUR is that it uses the power of simplicity to solve a complex problem. It does not attempt to be statistically correct or perfect. While there is no perfect answer to solve all the challenges that plague CCTV users, COM-SUR is the one single, simple answer to solve many of the challenges of CCTV/video surveillance.

Expectations from COM-SUR

It is imperative to understand what to 'expect' from COM-SUR, and the best way to make use of it.

1. COM-SUR is a CCTV video footage auditing, smart backup and intelligent reporting software. Through the process of auditing as well as the other features of backup and reporting, users will achieve the main objectives from CCTV surveillance, which are crime and loss prevention, improvement of processes, and faster solving of crime and so on. As explained earlier, think of COM-SUR as an enabler like MS Office. You use MS Office to create documents, presentations, spreadsheets, e-mails etc. In this case, MS Office only provides you with the 'platform' to do so. It is up to you to use your skills/expertise and create the relevant outputs. Similarly, COM-SUR is a force multiplier, and provides you with a platform that enables you to audit CCTV video footage, back it up smartly (with reduction of the data size) and take the logical next steps once you discover something during the audit process.

2. COM-SUR should not be expected to give the best picture quality, facial recognition, alerts and so on. That is the job of the relevant software and such systems.

3. 'Auditing', as the name suggests, is a post-facto activity. However, just as books of accounts and processes are audited, and irregularities that are found are used to prevent future events, auditing of CCTV video footage will also deliver the same results. In fact, we carry out the activity of auditing in our daily lives. If you go for a vacation /marriage /party, you are likely to shoot several photos using your respective mobile phones /digital cameras. Once done, you manually go through each photo one by one since it gives you a

benefit (pleasure) in doing so. The technology of the mobile phone/camera made it easy for you to check the photos, but eventually it is you who decides whether the photos are good or bad. Similarly, COM-SUR makes it extremely easy for you to audit hours of CCTV video footage and helps you to discover exceptions/items of interest.

4. We believe that at least if all the critical cameras are audited daily, users will begin to discover what video analytics will not be able to. In this context, let us consider the example of a feature film. In order to discern what the film is all about, whether it is good or bad, whether the actors have performed well etc., you would need to watch the entire film. You cannot just pass judgement on the entire film watching a few scenes in isolation. Similarly, in CCTV/video surveillance, by merely relying on alerts triggered by video analytics, you are likely to miss out on important incidents/exceptions for which alerts are not 'triggered'. Another example that we can consider here is that of the 'autocorrect' feature available in several chat applications. The 'autocorrect' feature suggests the 'correct' spellings for words that it 'deems' are incorrect /misspelt. It is likely that it may give out wrong suggestions. Ultimately, the user has to verify and decide whether the suggestion is right or wrong. Similarly, alert-based systems will throw up several alerts. Eventually the user has to check and decide whether each alert is false or genuine.

5. The efficiency with which COM-SUR helps the audit process, the backup process, and the reporting process are by themselves a very good reason to deploy it.

What is expected of a COM-SUR channel partner?

As a COM-SUR channel partner, it is expected that you work closely with prospects and customers, and:

1. Deliver the highest levels of integrity.
2. Exhibit exceptional professionalism.
3. Provide great customer support.
4. Listen to them closely and offer solutions to their problems.
5. Take all communication, marketing material and so on seriously.
6. Not add/modify the branding of COM-SUR in any communication from your side, including marketing material, whether in hard or soft copies.

Opportunities for COM-SUR channel partners

As mentioned above, the market size for COM-SUR is humungous.

It offers the following opportunities:

1. Delivering COM-SUR solutions to existing customers who already use video surveillance. Since this is a mature market, the opportunity in this area itself is very large. Again, since COM-SUR works with all types of cameras and VMS, a prospect would have no hesitation to use COM-SUR as an add-on once he is convinced of the benefits that COM-SUR brings to the table.

2. Working with CCTV integrators/consultants for new installations.

3. Customization projects, where customers require additional features.

4. Annual maintenance contracts.

5. Providing a CCTV remote video footage daily auditing service. Partners could set up small 'command centres' and offer a daily auditing service. Using tools like MS Teams, Zoom, AnyDesk etc., one could audit a customer site without having to stream the video to a centralized location. This will save the customer huge bandwidth and other infrastructure costs.

With the proliferation of video surveillance, the market size and opportunities for COM-SUR can only increase.

Becoming a COM-SUR certified channel partner

In order to deliver the highest levels of customer satisfaction, it is important that each partner becomes COM-SUR certified. COM-SUR certified channel partners need to:

1. Be well-versed with the video surveillance Industry (cameras/NVR/DVR/VMS/etc.), as well as to have sufficient knowledge about computers, operating systems, networking, and so on. The partner must also have complete knowledge of technologies like MS Office, Skype, e-mail clients, Google Docs, Google Drive, Azure, OneDrive, Dropbox, WhatsApp and so on.

2. Take the COM-SUR courses as mentioned above.

3. Recommend the appropriate COM-SUR version as per customer requirements.

4. Be able to address any kind of customer queries/issues related to COM-SUR.

How to become a COM-SUR certified channel partner

Partners who wish to become COM-SUR certified, need to write to us at bizopp@comsur.biz and await further communication. Do note that an agreement to the effect will need to be signed based on our standard channel partner agreement.

Sales territory

COM-SUR channel partners will have non-exclusive rights to distribute COM-SUR in territories of their choice.

Intellectual property rights etc.

All intellectual property rights (patents, trademarks, copyrights and all other related rights) for COM-SUR are owned by Hayagriva Software Pvt. Ltd. COM-SUR channel partners will need to ensure that they make permitted usage of the COM-SUR logos, trademarks, and other brand assets. Further, while sufficient measures are in place to prevent piracy, it would also be the responsibility of the COM-SUR channel partner to ensure that no

mis-licensing, unauthorized reproduction, and illegal distribution of COM-SUR takes place in their respective territories.

Objections and their answers

It is expected that COM-SUR channel partners will face objections from prospects with reference to several topics. Objections are not rejections. If prospects raise objections, it means that they are interested. Here is a list of common objections and their answers.

Auditing

Q1. While all this bit about auditing makes sense, but it is a manual process. Who has the time to do it? What if the person who is auditing himself/herself is not doing a good job? Who will check so much data? And we would need more resources!

First of all, there is no need to deploy any additional resources. In fact, you can create a CCTV video footage audit team within your organization, and even upgrade your security guards to conduct this activity. Again, the benefits of auditing far outweigh the efforts and any additional costs if at all.

For example, you may be able to save on insurance premium if losses begin to come down.

As to the angle of manual work, just because something is manual, it doesn't mean that it isn't good. We don't leave everything to machines, do we? Don't we get a doctor to see us before

he/she can put us to tests that are carried out by machines? Some things just have to be done manually. Are you likely to lose weight just by buying a treadmill? You're going to have to make that effort! If a solution delivers the desired results, then whether manual or not, it should be done. How likely are you to hop-on to a flight which has no pilot?

As to your question about the operator himself/herself not doing a good job; well, that can be said of any profession. But here is an idea. Why not incentivize someone to 'find' exceptions from video? We are quite sure that by doing so, results may just be dramatic.

Again, as to "Who will check so much?" well, COM-SUR is so flexible and quick, that it can give you a good 'sense' of what's been happening in minutes. And while we do lay a lot of stress on auditing video, you can still take lots of benefits from COM-SUR as a great additional backup and reporting tool, i.e. gain the benefits from the other two segments; i.e. huge reduction of data size/ease of creating a disaster recovery mechanism, and standardizing reporting.

Finally, let us remember that CCTV cameras are not just about crime. The utility value of COM-SUR is broad enough to help you improve your processes, compliances, efficiency, housekeeping, and so on. 'Seeing' what the cameras 'saw' is what auditing is all about. It's just how we immediately check the photos that we take using our mobile phones. Since it gives us a benefit (pleasure) in doing so, we manually go through hundreds of photos, and technology makes it easy for us to

do so. Similarly, COM-SUR will also deliver benefits, and its technology will make it easy for you to go through hours of CCTV video footage in minutes.

Note: If you are demonstrating to someone at a government level, tell them that COM-SUR can help in agriculture, climate control, forests, policing, defense and so on... in short, wherever there is a camera, there is a need for COM-SUR to 'complete' the surveillance initiative.

Q2. We can do a 'fast-forward' or playback in a DVR/NVR/VMS as well. What added benefit does your software provide in this case?

Before anything else, let us remember one thing that what if the DVR/NVR/server itself is either stolen, destroyed, fails, or is tampered with? How will you manage a situation like that?

While doing a playback, one may need to shuffle between different cameras, refer to the past to look for similar incidents, quickly flag and aggregate the audit findings, and then report with ease. COM-SUR makes all this extremely easy and efficient. With COM-SUR, you don't need to even select the cameras to fast forward, because the screenshot already exists. One of the biggest pains while trying to fast forward video in a DVR/NVR/VMS is selection of channel, date, time, synchronization and so on. All this is very time consuming. Also, it is often observed that when several cameras are being selected at a time, systems tend to hang.

With COM-SUR, and its various ways of playing back, not only can you go back and forth with

ease, but you can also zoom and pan with great ease. Again, wonderful part about COM-SUR's auditing process, is its ability to take quick 'next steps'. For example, once some exception or item of interest has been discovered, you can quickly create reports, add clip arts, create a video and dump it into PowerPoint for ease of sharing, tag the relevant screenshots for future use, and so on. Nothing of this kind can be done even with the most sophisticated DVR/NVR/VMS.

And all this can be done even from a remote location. Finally, if the playback mechanism of a DVR/NVR/VMS was so easy to work with, why doesn't anyone audit?

Q3. We are using a video summarization/synopsis technology that enables us to review hours of video in minutes. What added benefit does your software provide in this case?

To use these technologies, you need to know 'what' to look for. COM-SUR, on the other hand helps you to discover the 'unknown' and 'unlock' the 'hidden' information in the footage. As you may appreciate, video summarization /synopsis technologies usually extract key frames from a video based on complex algorithms and create a 'summary'/'synopsis' video from the extracted frames. It is likely that such technologies may miss out on frames that may be important from a human standpoint. For example, these frames could be ones which depict suspicious activity that may lead to serious incidents. COM-SUR helps you audit the entire duration of the video in a fast and efficient manner, thereby ensuring that you do not miss out on anything. And most importantly video summarization/synopsis technologies do not come cheap and may have

several other hardware and software requirements. COM-SUR's simplicity, cost-effectiveness, and ease of use would induce you to carry out the activity of audit without any pain.

Finally, when audit is being conducted of video which may be resident at a remote location, the entire process would become very sluggish and cumbersome because of network issues.

Video Analytics

Q1. Your software does not raise any alarms on triggers like face/object/motion detection.

While we do not undermine alarm-based systems, scientific research shows that a large percentage of alarms are false. Solutions that can detect whether an alarm has been raised due to an intruder or a known person, or an animal, are yet to be perfected. Further, alarm-based systems will never raise any alarms for situations like a guard sleeping on duty, someone conducting a recce, sales staff not attending to customers, and so on. These can be discovered only through regular audit, which COM-SUR makes easy and efficient. We like to call this kind of intervention as human analytics. Having said that, future versions will provide motion detection, and so on.

Bandwidth

Q1. For your software to take screenshots, we would need to keep the video feed on 24/7. Wouldn't this consume a lot of bandwidth?

Let us first understand that COM-SUR does not require any additional bandwidth to capture

screenshots of the video feed. The video feed is only being streamed and not downloaded. This means that in any case, if you were to bring the video feed on a monitor using the internet, it would consume the same amount of bandwidth. By taking screenshots, COM-SUR is actually offering you great value of remote backup and the ability to quickly audit what has been backed up.

Depending on how you are accessing the video feed, will decide whether you will be consuming internet bandwidth. If you are accessing the video feed through a LAN (local area network) or if you have connected your DVR/NVR directly to your computer by means of a co-axial cable, then, there is no question of bandwidth. In case you are accessing the video feed of a remote location via the internet/WAN (wide area network), you can access the video feed via the sub-stream mode and configure the same at 5-6 FPS (frames per second). This would still give you decent results of the screenshots. Further, in case your DVR/NVR/VMS/ CMS supports 'zero channel encoding', you can configure the same in order to access the video feed of multiple cameras from a single channel (known as the 'zero channel'). This would considerably consume lesser bandwidth as opposed to accessing the video feed from multiple camera channels.

Further, it is imperative to understand that when the live video feed is streamed from cameras at a remote location, then there is an upload data usage from the respective cameras. If we consider a camera (analog or IP) having a D1 resolution and streaming at a rate of 15 FPS (frames per second), then the upload data usage per day would approximately come to 6.7 GB for

that camera. This should not be a cause for concern in case you have an unlimited broadband internet connection. In this case, after a particular amount of data usage, only the speed of the internet is reduced. The video feed will still be accessible in this case and would give you decent results of the screenshots.

Backup

Q1. If we are going to take so many screenshots, is it not going to consume a lot of disk space? And what about the FPS?

Agreed. But compare the data size of the screenshots captured by COM-SUR with the data size of the video recording in your respective DVR/NVR/server. COM-SUR's screenshots data size is drastically lesser. Also, please remember that if you capture screenshots at an interval of 2 Seconds instead of 1 second, the data size will reduce by 50%, without compromising too much on loss of any frame.

Further, you do not need to retain the screenshots that are not relevant. The whole idea is to audit the screenshots quickly. Once you have done so, COM-SUR provides you with the ability to quickly delete the ones that you don't need. Again, please remember that COM-SUR takes screenshots of multiple cameras. People often view up to 32 tiles on a screen. This means that effectively, a COM-SUR backup is 1/32. As to the FPS, COM-SUR captures the 'one' second that actually creates the video. So, whether your video feed is at 5 FPS or 90 FPS, it won't matter to COM-SUR.

And most importantly, as explained earlier, COM-SUR also offers the ability of creating videos from the screenshots. These videos are a lot lighter in size when compared to the size of raw video (plus easier to manage as they can have multiple cameras in a single video).

Q2. If we are going to back up in the cloud, it is going to consume a lot of bandwidth.

The screenshots that COM-SUR takes (of multiple camera channels) would be far lighter in size than actual video. Also, COM-SUR provides the utility to decide the number of screenshots that you would like to upload to the cloud.

Q3. If we are going to take so many screenshots, how are we going to search for relevant ones?

COM-SUR provides you with an efficient utility of 'tagging' relevant screenshots together so that they can be easily searched and retrieved at any time in the future. For example, you could use this feature for tagging screenshots taken for a particular event, location, or any kind of activity that you consider is an exception that needs to be stored for future reference. Think of it like creating an institutional library.

Q4. We already have a backup of video, why do we need a backup in the form of screenshots?

Most videos are stored for a period of 30 days. Some users store video for years. However, with more storage, comes the nightmare of discovering the appropriate video. Again, one must remember that videos are stored per channel. With COM-SUR, you have

the ability of storing multiple channels in one screenshot, besides the fact that with COM-SUR's tagging feature, discovery is easier. And of course, if you store only what you need, then, storage space consumption is much lower as well.

Cloud Services

Q1. We liked the Microsoft Azure, OneDrive/Google Drive/Dropbox angle. But this does not seem to deliver results in real-time. And yes, are these services for free?

With respect to services like Microsoft Azure, OneDrive/Google Drive/Dropbox, the speed at which the screenshots will be synced in the cloud from your computer would depend on the internet speed, and the terms and conditions as may be imposed by these services.

With respect to costs/availability of the services from any of the above platforms, you will need to adhere to their terms and conditions. COM-SUR is an 'enabler', and does not claim that it has been endorsed by any of them, or that these services will be free or paid, or that these services may perform without any hitch, whether temporarily or permanently. The entire functionality and performance is dependent on the respective platforms and their terms and conditions.

Miscellaneous

Q1. We have hundreds of cameras. How can we take screenshots of so many cameras?

There are two ways to handle this. Either you

make the necessary arrangements to handle such a load, or you take screenshots of at least your critical cameras. The good part about COM-SUR is that since it captures what it 'sees', you can change your cameras to be observed from time to time to suit your needs.

Q2. Our video feed keeps on rotating on the monitor at set intervals. How will COM-SUR handle this?

This is not a problem. As long as the video feed that is being captured by COM-SUR does not rotate on the computer, you should not have any difficulty. An easy way to do this is to open the rotating feed in a separate display 'Window'.

Pricing

Q1. We feel that the price is a bit high.

Think of it like this. After having made an investment in your existing systems, you haven't achieved 'optimal outcomes'. With regular audit of your CCTV video footage, you have far better chances of achieving 'optimal outcomes'. We believe that with the help of COM-SUR, even a single incident of crime or loss that is prevented, or a case of business process improvement will instantly pay back the investment made. Several cases can be cited where, despite having video surveillance systems, crime continues to occur, and business processes continue to be flouted. With COM-SUR, you are completing your surveillance initiatives. And remember, that over a period of time, with lesser crime and

losses, you have the opportunity to negotiate better insurance premium.

Finally, COM-SUR is available in several versions to suit customer requirements.

Hardware Related

Q1. For the software to capture screenshots continuously, the computer needs to be kept on 24/7. Would this not affect the computer's performance?

Most computers are built to run on a 24/7 basis. We would recommend that you get a new computer with a robust configuration and dedicate it solely for the software.

Q2. But that would mean that we would have to keep the computer working 24/7. That would consume a lot of electricity.

Think of it as your alternate DVR. Just as you would keep your DVR on 24/7, you would of course need to keep the computer on 24/7. At best, keeping a computer on for 24/7 would consume 876 units (in kilowatt hours) per year which is nothing compared to the amount of the security that would be delivered.

Q3. You are recommending that we should have a dedicated computer. This means that we will have to make additional investments. We are a small business/housing complex. We need to think about ROI.

Again, it boils down to the fact that security is serious business; and you are investing in

security, not in a computer. One crime prevented or business process improved can far outweigh the costs of the computer and COM-SUR. And, when it comes to your safety and security, ROI should be the last thing on your mind.

Q4. Do we need to buy a branded computer?

Yes. That would be recommended for more reliability.

Q5. Do we need any additional software like MS Office?

Yes. For some features, you will need MS Office 2013 and upwards. If you do not need those features, you can use any open-source program that can understand MS Office formats like .DOCX and .PPTX.

Q6. We are not allowed to keep our monitors on in order to save electricity. In this case, how will you capture screenshots?

COM-SUR will capture screenshots even if your monitors are switched off.

Installation and training

Installation

For installation of COM-SUR at the customer's location, COM-SUR channel partners will need to co-ordinate with the customer's CCTV integrator/IT team. It is suggested to ensure *robust* hardware that matches the system requirements of COM-SUR. The installation and

usage of COM-SUR is subject to the End User License Agreement.

In order to ensure a smooth installation, the following needs to be taken care of:

1. The computer's hardware and software configuration should be *as per* our recommended system requirements.
2. The installing 'user' must have *administrative rights/privileges* on the computer.

Training

COM-SUR channel partners can train their customers either online, or at the customer's premises. A guideline of charges for installation, training and consulting are normally a part of our pricelist to COM-SUR channel partners. Customers should be encouraged to take our courses and get certified.

Support, licensing, and maintenance

Support and Licensing

Click the link below:

[https://www.comsur.biz/COM-SUR -
_Support and Licensing Policies for Channel P
artners - Template no. 4.6.pdf](https://www.comsur.biz/COM-SUR_-_Support_and_Licensing_Policies_for_Channel_Partners_-_Template_no._4.6.pdf)

Maintenance

Prospects can enter into an annual maintenance contract (AMC) with COM-SUR channel partners. Terms of the AMC can be set between the partner and the prospect.

Sales reports

COM-SUR channel partners are expected to report details of the sales activities carried out by them on a weekly basis, or as required by

HAYAGRIVA. These reports will comprise details about the customers, the number of the COM-SUR licenses ordered, the sales figures along with the partner margins, and other information as may be required by HAYAGRIVA.

Bulk orders/large prospects (like government contracts)

In case the partner receives requests for bulk orders or receives inquiries from large prospects (like governments, large enterprises and so on), the partner will need to notify HAYAGRIVA about the same. The partner will need to, in conjunction with HAYAGRIVA, accordingly work out details such as the number of licenses needed, pricing for the same (bulk discounts), the installation and training costs, and so on, and proceed accordingly.

Our Societal Purpose

Because we are so convinced that 'COM-SUR' will bring exceptional value to all users of CCTV world-over, we have decided to offer COM-SUR (Business version) *for free** to:

1) All places of *Worship* world-over (think of the multiple terror attacks at places of Worship across the world).

2) All low-budget government *Schools* world-over (think of the School shoot-outs, to abuse of various kinds across the world).

3) All *Zoos* world-over (think about Animal cruelty, theft, and so on across the world).

** Software comes for free. Installation and commissioning, training, support, consulting etc. is to be carried out by relevant COM-SUR certified system integrators, which would be a chargeable activity by them. Besides, a small administration fee to issue the license will apply per install. Additional details are available on request.*



Why wait? Become a COM-SUR Channel Partner today!

COM-SUR is a unique and humungous opportunity. Come, be part of it.