# com sur ™

the missing piece of CCTV

# THE FOOTAGE WHISPERER

# "SEE WHAT THE CAMERA SAW"

## 100+ TOPICS – AIRPORTS TO ZOOS

WELCOME



AUDIT HOURS OF FOOTAGE IN MINUTES
FIND OUT HOW COM-SUR WILL HELP

CCTV and other forms of video surveillance are commonly used in events and conferences world over, but footage is often only reviewed reactively. Our company realized this problem early-on and has developed the world's only CCTV video footage auditing software that encourages daily auditing (hours in minutes) of CCTV footage, filling the gap for a complete "workflow". The software works with existing cameras and VMS, regardless of type/brand, and provides a standardized approach for intelligent incident reporting. Our software also offers exceptional investigative capabilities.

'COM-SUR' – THE WORLD'S ONLY CCTV/OTHER SURVEILLANCE VIDEO FOOTAGE AUDITING, SMART BACKUP, AND STANDARDIZED INTELLIGENT INCIDENT REPORTING SOFTWARE – THE MISSING PIECE OF CCTV/OTHER SURVEILLANCE VIDEO

COM-SUR is the world's only CCTV/surveillance video footage auditing, smart backup, and standardized intelligent incident reporting software that serves as a complete workflow and force multiplier. It helps audit 24 hours of footage in minutes, reduces data size, creates standardized intelligent reports, and delivers business intelligence. COM-SUR helps unlock hidden information in CCTV/surveillance video footage and enables people to gain actionable intelligence, improve homeland security, prevent crime and losses, identify and mitigate threats and hazards, and improve operational efficiency. It empowers people to gain new jobs as CCTV/surveillance video footage auditors and start new businesses of auditing video footage. Like MS Office, COM-SUR is an enabler that makes it easy to work with CCTV and other surveillance cameras in a standardized way, leading to better decision-making. It also offers exceptional investigative capabilities.

HOW COM-SUR SMARTLY REDUCES 'VIDEO' STORAGE SIZE

COM-SUR employs an innovative approach to smartly reduce the amount of video to be audited and consequently the storage size of videos. Regardless of the video's frame rate, COM-SUR captures a single screenshot of the consolidated 'moment' of 'that' one second, when the I, P, and B frames come together. This method significantly reduces data size without sacrificing vital information. It goes without saying that when multiple cameras are displayed in a grid view, say 4x4, the storage size is further reduced since all the cameras are captured as a single image. Since no suggestion is being made to replace the actual video with screenshots, COM-SUR acts as a wonderful supportive technology both to audit (review) just 86400 frames representing 24 hours and reducing the data size at the same time.

CHALLENGES AT EVENTS AND CONFERENCES

1. Crowd management:

Controlling and managing large crowds during events and conferences can be challenging. Ensuring orderly entry and exit, preventing overcrowding in specific areas, and managing queues are essential for crowd safety.

2. Unauthorized access:

Maintaining effective access control is essential to prevent unauthorized entry. Security personnel need to verify credentials, monitor entrances and exits, and ensure that only authorized individuals have access to restricted areas.

3. Vandalism and hooliganism:

Events and conferences are susceptible to vandalism and hooliganism, which can be costly and disruptive.

3. Terrorism and other threats:

Events and conferences are potential targets for terrorism or other threats. Perpetrators often conduct pre-operational surveillance of the target area, making it important to detect suspicious activity during this phase to prevent an incident.

4. Emergency response and evacuation:

Planning for emergencies, such as fires, natural disasters, or security incidents, is crucial. Establishing clear evacuation procedures, providing emergency exits, and conducting drills help ensure a swift and organized response.

5. VIP protection:

Events and conferences with high-profile attendees or speakers may require additional security measures for VIP protection. This includes close protection details, secure transportation arrangements, and secure areas for VIPs.

6. Venue security:

Securing the physical venue involves addressing vulnerabilities such as unattended access points, weak points in perimeter security, and the presence of potential hazards.

7. Alcohol and substance abuse:

Events and conferences with alcohol service may face challenges related to alcohol abuse and intoxication.

8. Protests and demonstrations:

Events and conferences may attract protests or demonstrations, which can pose security challenges.

9. Lost and found Items:

Managing lost and found items during events and conferences can be a logistical challenge.

10. Vendor and contractor security:

Events often involve various vendors and contractors. Ensuring that these entities adhere to security protocols, conducting background checks when necessary, and monitoring their activities contribute to overall event security.

11. Insider threats:

Organizers of events and conferences have to deal with insider threats from disgruntled employees or even unwitting staff who fail to follow proper security and safety measures.

12. Humongous growth of surveillance video:

The exponential growth of surveillance cameras has resulted in an unprecedented surge in surveillance video. Effectively managing this data has become a daunting challenge due to the massive storage capacity required, especially considering the prolonged retention periods necessary for security, incident investigation, or legal purposes. Furthermore, the prevalence of high-resolution video with increasing megapixels compounds the storage demands, making efficient data management an urgent priority for organizations grappling with the immense volume of surveillance footage.

COVID-19 PANDEMIC

The pandemic severely impacted events and conferences worldwide. Owing to lockdowns and other restrictions, several events and conferences had to be cancelled or postponed, resulting in huge losses. To adapt, there was a rapid shift towards virtual and hybrid formats, leveraging technology to facilitate online conferences and trade shows. Guidelines were issued to prevent the spread of COVID-19, but outbreaks still occurred.

USE OF VIDEO SURVEILLANCE AT EVENTS AND CONFERENCES

Most venues hosting events and conferences have video surveillance covering the following areas:

- Entry and exit points

- Registration areas

- Conference rooms and session areas

- Speaker and VIP areas

- Networking areas and lounges

- Exhibition or sponsor areas

- Media and press rooms

- Common areas and lobbies

- Technical equipment rooms

- Outdoor areas (including parking lots)

- Food and beverage areas

Further, officials who are in charge of events and conferences analyse recorded CCTV video footage from time to time for post-event analysis, especially in order to identify instances of theft, violence, and/or vandalism as well as assist Police/other Law Enforcement Agencies.

USE OF DRONES TO MONITOR EVENTS

Drones are increasingly utilized to enhance security, surveillance, and overall event management. Here are several ways in which drones are used to monitor events:

1. Aerial surveillance:

Drones provide a bird's-eye view of the entire event venue, allowing for comprehensive aerial surveillance. This perspective aids in monitoring crowd movements, identifying potential security threats, and assessing overall event dynamics.

2. Traffic monitoring:

Drones assist in monitoring traffic conditions in and around the event venue. This is especially valuable for large-scale events with significant vehicular traffic, helping organizers manage parking and traffic flow.

3. Emergency response:

In the event of emergencies, drones can quickly provide an aerial perspective to assess the situation. This aids emergency responders in making informed decisions and implementing effective response strategies. Further, drones equipped with thermal imaging cameras can be deployed for search and rescue operations, helping locate individuals in challenging or inaccessible areas during emergencies.

4. Perimeter security:

Drones are used to monitor the perimeter of the event venue, providing real-time surveillance of entry and exit points. This helps identify any unauthorized access or security breaches.

5. Monitoring VIP areas:

Drones are employed to monitor areas designated for VIPs or high-profile attendees, enhancing overall security in these specific zones.

6. Incident documentation:

Drones capture high-resolution images and videos, serving as valuable documentation tools in the event of incidents or security breaches. This visual data can be crucial for post-event analysis and investigations.

7. Vendor compliance:

Drones assist in monitoring vendor areas and ensuring compliance with event regulations. This includes verifying booth setups, confirming safety measures, and addressing any non-compliance issues.

8. Fire safety inspections:

Drones equipped with thermal cameras can conduct aerial inspections to identify potential fire hazards and assess the effectiveness of fire safety measures.

9. Documentation for event planning:

Drones capture high-quality aerial footage that can be used for post-event analysis, marketing,

and planning future events. This visual data offers valuable insights into crowd behavior, logistics, and overall event dynamics.

## USE OF BODY WORN CAMERAS TO MONITOR EVENTS

Body worn cameras are commonly used to monitor events, especially by security personnel, law enforcement, and event staff. Here are some ways in which body-worn cameras are utilized during events:

1. Security and crowd control:

Security personnel and crowd control teams wear body-worn cameras to document interactions with attendees, monitor crowd behavior, and record any incidents or disturbances that may occur.

2. Incident documentation:

Body worn cameras serve as valuable tools for documenting incidents or security breaches in real-time. The footage captured can provide crucial evidence for investigations or legal purposes.

3. De-escalation efforts:

The presence of body worn cameras can contribute to de-escalation efforts, as individuals are aware that their actions are being recorded. This awareness can help deter aggressive behavior and encourage compliance with event rules.

4. Event staff co-ordination:

Event staff, including ushers, coordinators, and support personnel, may wear body worn

cameras to facilitate communication and co-ordination. The footage can be used to review and improve staff performance during events.

5. Emergency response:

In emergency situations, body worn cameras provide a real-time visual record of the response efforts. This can be valuable for assessing the effectiveness of emergency procedures and making improvements for future events.

6. VIP protection:

Security personnel tasked with VIP protection may wear body worn cameras to monitor interactions with high-profile individuals, ensuring their safety and documenting any potential security threats.

7. Training purposes:

The footage captured by body worn cameras can be used for training purposes, allowing security and event staff to review their actions, identify areas for improvement, and enhance their skills.

## USE OF MOBILE SURVEILLANCE UNITS TO MONITOR EVENTS

Mobile surveillance units are specialized vehicles or trailers equipped with surveillance and monitoring technologies, designed to provide flexible and temporary security solutions for various purposes, including event monitoring. These units are often deployed to enhance situational awareness, monitor crowd dynamics, and ensure the safety and security of attendees during events.

## LIVE MONITORING – CHALLENGES

Several venues hosting events and conferences have a dedicated control room with operators, set up for live monitoring of CCTV and other cameras. However, live monitoring comes with its own set of challenges of video blindness, poor attention span, boredom, operator bias, false alerts, and so on. Moreover, these cameras continuously capture and record humungous amounts of video data.
It therefore becomes a daunting task for the operators to review and analyse this data whenever the need arises. Thus, it may be noted that benefits from video surveillance systems can accrue only when they are used optimally, suggestions for which are enumerated further on, in this document.

## COMPLIANCE - GENERAL

Conformity or compliance in any organization means adherence to laws and/or rules and regulations, various standards, as well as data storage and security requirements as laid down by government bodies, governing bodies of the respective industry, or the management of the organization. When an organization complies with the requirements mandated by government and/or governing bodies, then it is termed as 'regulatory compliance' which enables the organization to run in a legal and safe manner.

## COMPLIANCE - AUDITS

Several organizations carry out compliance audits on a regular basis to avoid the potential consequences of non-compliance. A compliance audit examines how well an organization adheres to compliance requirements.
Some organizations use video surveillance to monitor compliance issues and audit recorded video footage from time to time for investigating and preventing compliance issues. Auditing video provides actionable insights on the level of compliance within the organization.

## AUTOMATED SOFTWARE – WHY THEY WILL NOT WORK IN ISOLATION

In the wake of the Christchurch shooting incident, several high-profile places of worship considered deploying gun detection technology. However, there are concerns about its efficacy, since it may not be able to detect all types of weapons, or the perpetrator could still create damage before being detected.
Similarly, automated systems like video analytics, AI/ML can only detect what they have been programmed for. What about the rest? Again, these technologies are prone to triggering huge amounts of false alarms.
Also, since the permutation combinations of exceptions can be vast and varied, it becomes almost impossible to automate every kind of exception. Facial recognition technology also raises ethical and privacy concerns, and has been found to produce inaccurate results, especially for certain ethnic groups.
Therefore, experts suggest that while automated technologies will continue to grow, human intervention and intelligence will still be necessary to verify alerts and ensure their efficacy.

## "CCTV AND OTHER FORMS OF VIDEO SURVEILLANCE ARE NOT ENOUGH – WE MAKE IT WORK FOR YOU"

While it is not being suggested that optimal usage of video surveillance can cure all issues, several issues of the following kind can be addressed by doing just a little 'more' with

respect to making the optimal use of video surveillance systems:

- Crowd control issues

- Alcohol and drug use

- Recces/suspicious movements/activities

- VIP issues

- Accidents and other liabilities

- Operational issues

- Vandalism and hooliganism

- Kidnapping/kidnapping attempts

- Loss/theft

- Health and safety issues

- Staff negligence

- Inattentive staff (e.g. guard sleeping)

- Insider job/security lapses

- Unauthorized/unlawful activities/visitors

- Issues with female staff or event/conference attendees

- Compliance issues

- Housekeeping issues

- Cameras/recorder malfunctions

So, what is the 'more' that needs to be done?

1) AUDIT CCTV AND OTHER SURVEILLANCE VIDEO FOOTAGE DAILY AS A STANDARD OPERATING PROCEDURE

'Auditing' means 'seeing' what the cameras 'saw'. Auditing of CCTV and other surveillance video footage should be done daily (continuous investigation) to identify potential issues and threats. Auditing is a dedicated and systematic process that helps address challenges related to live monitoring and alert-based systems. Auditing helps in evaluating analyzing incidents to improve existing policies, procedures, and processes. Concerned personnel should be trained to become video footage auditors, and the audit teams should be rotated to avoid complacency/collusion. Daily auditing of CCTV and other surveillance video footage can also help in adhering to the principles of Kaizen and TQM for business improvement.

2) DOCUMENT AUDIT FINDINGS/INCIDENTS

Audit findings/incidents should be documented in a standardized template to find the root cause to prevent future recurrences. Historical data of such findings/incidents can reveal patterns that can help take better informed corrective and preventive action. If all sports and events stadia report incidents in a standardized template, relevant authorities can derive business intelligence from the data and take action for the collective benefit of all stakeholders of sports and events stadia worldwide.

3) ENSURE DISASTER RECOVERY OF CCTV AND OTHER SURVEILLANCE VIDEO FOOTAGE – LIKE A 'BLACKBOX'

CCTV and other surveillance video footage must be stored at multiple locations in order to

ensure that even if the recorder/storage device is stolen, destroyed or tampered with the data is never lost. Further, any backed-up data must easily be searchable and retrievable; else, it is going to be a nightmare finding the relevant video.

## 4) DISPLAY DYNAMIC INFORMATION AT RELEVANT PLACES

Document and display details of information that is dynamic in nature in relevant areas. For example:

1. List of officials on duty at the venue of the event or conference.

2. List of authorized security personnel deployed at the event or conference.

3. List of habitual offenders/suspects likely to visit the venue of the event or conference. (a 'Watch out' list).

## 5) USE A POWERFUL NEW SIGNAGE

**"WE AUDIT CCTV VIDEO FOOTAGE EVERYDAY".**

One size, one color, one powerful message. Across the nation.

## DE-CENTRALIZED SURVEILLANCE + CENTRALIZED SURVEILLANCE = OPTIMAL RESULTS

Organizations with multiple locations struggle with centralized video surveillance due to infrastructure cost, internet bandwidth, and operator limitations. De-centralized surveillance offers higher accountability at each location and better situational awareness, leading to more chances of discovering exceptions.

## CONCLUSION

"You see, but you do not observe" is a quote by Sherlock Holmes in A Scandal in Bohemia (1891, written by Sir Arthur Conan Doyle).
COM-SUR makes 'observation' far effortless and effectual leading to superior results.

"Cameras don't lie" - but how will you know unless you 'see' what the cameras 'saw'?
Audit video - why suffer!

Get award-winning COM-SUR now. Don't wait for things to go wrong!