

Protecting goods in transit with proactive surveillance and live monitoring

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The transport and logistics sector faces a unique challenge when it comes to securing goods end-to-end throughout the transport process. While areas like warehouses are fairly straightforward to monitor, when it comes to goods in transit things become a little more difficult.



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Surveillance solutions have in the past proven tricky to effectively implement, as transport vehicles are moving targets that often range great distances through very remote areas, and the mobile coverage and bandwidth required to transmit footage have simply not been available.

The real solution

While mobile coverage has improved in South Africa, the real solution lies in surveillance solutions that utilise very low bandwidth and can continue to transmit even when signal drops to EDGE or even GPRS. This makes live, proactive monitoring of transport vehicles a viable option throughout their journey, significantly enhancing security.

Crime is part of life in South Africa, and goods in transit are often subject to increased criminal activity, particularly with regard to easily saleable, high value or small items. End-to-end video surveillance is an essential component of securing goods throughout the transit process, from the manufacturer through to the final destination.

Securing goods while in transport vehicles has however typically proven to be a challenge, since many areas in the country only have low-grade bandwidth. While live monitoring can enable a more proactive and preventative approach to security, without the right solution, CCTV will be unable to transmit in these areas, creating vast areas with no visibility, which can be exploited by criminals.

Leveraging technology

To address this challenge, transport and logistics organisations can leverage technology that delivers the required live proactive monitoring even in areas with low bandwidth. This will enable action to be taken swiftly should an incident occur,

potentially catching criminals and deterring them from further activities. Making use of a Mobile Digital Video Recorder (MDVR) that enables high-quality live streaming of video footage using cellular and wireless technologies is a central component of such a solution.

This footage can be streamed live either to a mobile device or to a central control room, or both, and can also be recorded. This enables proactive security to be implemented on vehicles carrying goods that are frequently subject to heists, as well as vehicles travelling through remote or dangerous areas.

What to look for

There are certain characteristics that transport and logistics operators need to look for in an intelligent mobile DVR solution. Firstly, it should incorporate full GPS support as well as a chassis that is anti-shock and vibration resistant to withstand conditions on the road and ensure complete reliability on the move.

Secondly, multiple cameras need to be supported and able to connect to a single DVR, to cover various areas and angles. It is also important to be able to incorporate door sensors to improve vehicle monitoring and increase the safety of drivers and personnel travelling on the vehicles. To facilitate continuous video recording and streaming, USB modems should be included to allow for video to be constantly streamed, and built-in Wi-Fi will enable wireless backup of stored video to be sent to a storage server.

Advanced compression capabilities

Another essential characteristic is the ability to utilise advanced compression capabilities to enable video streaming using any mobile data available, from 3G right down to GPRS. Effective compression technology will enable transmission of video at four frames per second (4fps) at data rates as low as 1 Kilobyte per second (KB/s). This means that footage can be recorded and streamed in any mobile coverage situation, maximising coverage while minimising the cost of bandwidth.

Built-in Wi-Fi can also help to further reduce costs since it enables transmission over Wi-Fi link when available. Transcoding enables footage to be recorded at high resolution and transmitted live at a lower rate, so that recorded footage can be viewed at full size should this be necessary.

Securing goods in transit as well as protecting the people charged with transporting goods is an essential, and often challenging task. Proactive surveillance and live monitoring can make all the difference, allowing for action to be taken swiftly and capturing footage to help identify and convict the perpetrators.

Transport and logistics companies should look to live streaming and surveillance solutions that can transmit in all areas of South Africa, even though with low bandwidth and poor coverage. This will provide the end-to-end monitoring necessary for enhanced safety and security.

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