

ADPRO®

White paper

Why Remote Video Verification?

Introduction

Increases in crime against property and people have made it necessary for police response to be focused on addressing real incidents rather than attend unverified alarms. The obvious solution would be to provide a zero false alarm rate system, but this is not a realistic goal.

Primary causes of false alarms are poorly designed and installed security systems or human error in operating them. Even simple actions like the positioning of an advertising module or display near a ventilation outlet may result in a false alarm when it moves in the air currents. Therefore it is not a practical proposition to eliminate all false alarms at the source, though careful design and installation of the alarm system can dramatically improve the situation.

A viable alternative to physical attendance on site is to provide a means of remote verification from a centralized monitoring location. Attendance is then only necessary when a real threat is judged to exist. For this approach to be truly effective, it must be quick and easy to determine the cause of each and every alarm.

To understand why a customer fits an ADPRO video verification system you need to understand the value of a traditional system.



Intruder Alarm System

Most people understand the theory of the intruder alarm system: this being detectors strategically positioned in a building, door contacts and a control panel that is usually connected to internal and external sirens on site, and connected via a standard telephone line to a Central Monitoring Station (CMS).

Most customers are under the illusion that this protects their premises, but in reality it doesn't make the doors any stronger or the windows any tougher, they still break when struck.

What does it achieve?

An intruder alarm system works predominantly when the premises is unoccupied.

An intruder will approach a building and spend some minutes looking through windows, trying doors etc and if challenged, will make the lame excuse of " Oh, sorry are you closed?" or simply run.

If left unchallenged the intruder has free access to the building perimeter and any items that are stored outside the premises are susceptible to theft. An ideal opportunity is also presented to the would-be intruder to determine the best access point to the building.

An intruder can, by simply looking through a window, see all manner of expensive office equipment including laptops, P/CS and digital cameras left on desks. The building occupants assume they are protected by the alarm and the "it won't happen to them scenario"



The intruder who has been left unchallenged will eventually smash a window or force a door, which in turn will activate the alarm and send a signal through to the Central Monitoring Station. The experienced intruder having surveyed the site prior and knowing what he is going to target once inside will quickly

gather the equipment and leave through the same route prior to the arrival of the patrol officer. Nothing has stopped them and the customer has sustained a loss and damage to the premises.

Any loss sustained, will be covered by insurance, so who cares?

The loss can be viewed in a number of ways.

1. Costs incurred due to damage to the premises and the ensuing repair and maintenance works. Additional costs may also arise if alternative premises need to be sourced whilst these repairs are being undertaken. The often unconsidered cost is the uninsurable value of loss of time.
2. The actual loss of capital equipment is covered by an insurance policy, but what if the items are scheduled to be delivered to a customer tomorrow and there are penalty clauses for late delivery and again an un-insurable cost eventuates. A worse scenario would be if all your business critical information was stored on the stolen PC, you could severely jeopardise the long-term viability of your company.

In fact intruder alarm systems are very useful, but you should understand what they are designed to do.

An intruder alarm system is designed to detect an intruder after they have broken into the premises and at best will limit the time an intruder spends on the premises.

In a single sentence, an intruder alarm system is.

“DESIGNED TO LIMIT LOSS”



CCTV Systems

Many people underestimate or take for granted the need for a CCTV system.

But what is the value of installing a CCTV system?

The CCTV system works 24 hours a day.

The true value of a CCTV system is that it allows people to also become more efficient in their daily routine.

For example a customer invests in internal and external cameras, a control system in the form of a DVR, a number of monitors and keyboards that can be positioned throughout the premises.

The receptionist may have a monitor on their desk and constantly view the car park and the perimeter whilst continuing to undertake their normal duties. If someone were to be observed loitering in or near the car park they can be appropriately challenged.

A production manager can increase efficiency by observing the production line and stores area without needing to continually walk around the premises.

A managing director whilst travelling can review the business remotely to ensure business efficiencies are maintained despite his absence from the office.



A recording of all cameras is kept either on a videotape or more often now on a DVR.

The recording of events is extremely useful as if a visitor was to return to their car and find a dent in the door, they can return to reception and replay the video and see who caused the damage.

However our scenario of the intruder in the previous example would have produced video of the break in, but on closer inspection the intruder has a mask on and doesn't actually look at the cameras so what is the video footage showing us?

It actually re-enforces the point that the intruder detection system limits the time an intruder spends on the premises.

The CCTV system really only records the loss.

Remote Off Site Video Verification

What is a remote off site video verification system?

ADPRO is a respected name in the global video and surveillance market with over 35000 systems installed in a variety of applications and industries.

A customer that has critical business infrastructure either external or internal to their premises can utilise an ADPRO system.

Cameras are installed to give coverage of the perimeter of a premises or critical areas of a customers business.

A detection device is positioned covering the same field of view as the camera, these can be motion detection devices or ADPRO PRO series detectors or a combination of detection devices to suit the premises application.

The cameras and detectors are connected to an ADPRO transmitter. This can be a transmitter only or more often, one of the new ADPRO range of combined video transmitter and digital storage devices called FastTrace.

The ADPRO transmitter can be connected to the customers LAN or WAN so the customer can view live and stored pictures through the infrastructure already installed, and the transmitter is connected to a phone line for signalling to a Central Monitoring Station or CMS.

The ADPRO system is connected to the customers public address system or an amplifier with speakers sited externally around the premises.

On site the customer has complete control of the CCTV system as an on site surveillance system.

The difference is that when the customer vacates the premises and arms the intruder alarm system, they also arm the ADPRO system.

SCENARIO

The intruder approaches a building and in turn a CCTV camera and when they enter the field of view of the camera, the ADPRO system “grabs” three frames of video from that camera at 1-second intervals and dials through to the Central Monitoring System. In the Control Room the attending operator receives these three frames of video on a single Quad screen along with a fourth video image that replays all three frames of video in a video loop, to ensure the operator can clearly visualise what generated the alarm.

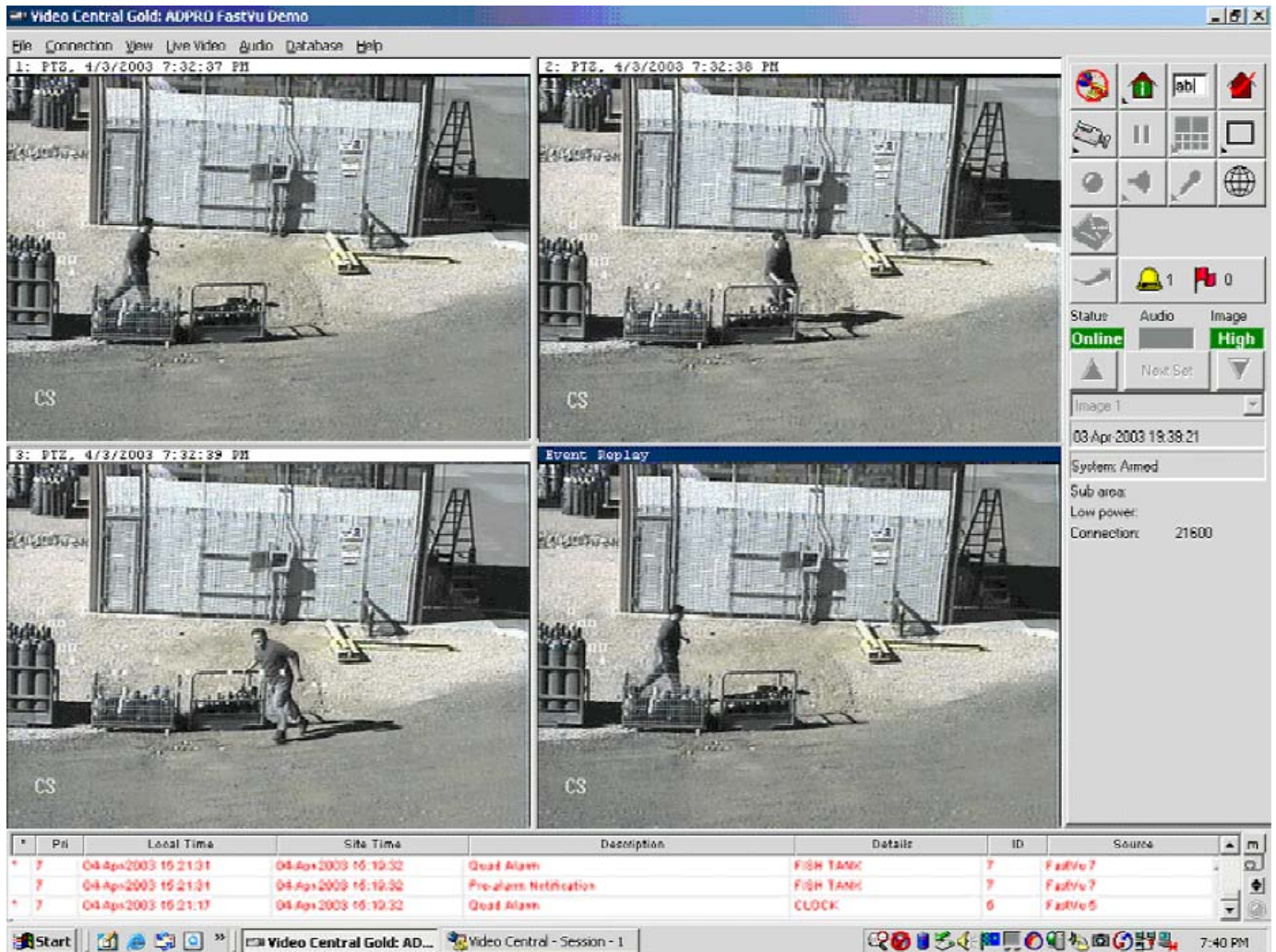
This is what is known as "the event", three frames of video that represent the actual alarm on site.

An operator can now switch to live video from that camera or select any camera to view. The operator can observe someone on site, and they simply use a microphone to challenge the intruder with a simple warning such as “ You in the grey jumper, you have activated a remote video alarm system please leave the site immediately”

This has the same effect that a person on site challenging the intruder would have, the intruder leaves site and the customer doesn't sustain a loss.

The signal takes between 8-30 seconds to reach the CMS, giving plenty of time for a response to warn off the intruder.

The operator could operate any PTZ camera from the CMS and obtain a good image of the intruder prior to warning the intruder off. This may in turn be forwarded to the police for appropriate action.



A customer can also control access to the site by motorizing the access gates, installing an intercom at the gates and connecting up the remote outputs to the ADPRO system.



A person who needs access simply presses the intercom and talks to the CMS operator, the ADPRO control software displays the video and an interactive site plan from the site, which holds all the critical information and details about persons who are allowed access.

A few questions answered, and access is either granted or denied, the gate can be remotely opened and lights switched on and alarm zones isolated, all under the watchful eye of the remote CMS.



Remote Video Management

A customer can use the ADPRO system as a normal system on site but also by simply installing ADPRO Video Central software onto their PC or laptop they are able to access the live and recorded video images by connecting to a telephone line from any location in the world.

This enables the customer to observe what is happening and indeed what has happened by reviewing the stored video on the ADPRO FastTrace system.

The success of video alarm verification has been clearly demonstrated by the installation of ADPRO products on tens of thousands of large scale commercial, industrial and government sites around the world. These installations are well-engineered, integrated solutions, comprising a variety of outdoor and/or indoor sensor technologies and a combination of CCTV and video transmission systems.

The value in terms of equipment lost and potential ramifications if down time was experienced, combined with guarding cost reductions, has justified the engineering effort by the installers to provide effective solutions.

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