

# Professional SECURITY

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## Motivation in security

FOR TEACHER

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- ◆ CONTRACTS & CUTS
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- ◆ ALARMING DISCUSSION

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The CCTV kit; the set-up in the field; and the setting of an outdoors detection area for alarm monitoring

Photos courtesy of Xtralis and Netwatch



## Perimeter to core package

A new generation of CCTV analytics is taking security to another level, Niall Kelly of Netwatch and Colin Rogers of Xtralis write.

For more than a decade, the ADPRO range of video and audio transmission technology by Xtralis has been the product of choice for the remote monitoring specialist Netwatch at security applications in Ireland and the UK. Netwatch started using the early ADPRO Fast Scan and Fast View units in 2002. These early units were soon superseded by more sophisticated digital transmission and recording systems – culminating in the launch of the FastTrace and FastTrace 2 systems – and complementary technologies including the ADPRO PRO series of long-range military grade external PIR detectors. During this time it also further evolved its ADPRO VMD (video motion detection) systems – an evolution that resulted in the launch

of the ADPRO Presidium Intelligent Intrusion Detection System now classified as a primary detection system by the UK Home Office Scientific Development Branch.

### Package concept

Total 'package' concept is the idea of protection 'from the perimeter to the core'. The detectors and motion detection systems – featuring intelligent analytics – protect the perimeter, and transmission technology ensures that video from the attendant CCTV cameras is transmitted to the Netwatch Communication Hub where Intervention Specialists can respond and take the appropriate action. This may be to warn an intruder off-site via two-way audio or informing the police. While all this is happening, both the video and audio is being recorded digitally to help secure a future conviction, should the need arise. Product reliability and integrity is high, and false alarms significantly low. Specific features such as the ability to download footage from the client's site and email it to that client within a matter of seconds have been particularly well received. One of the important criteria for

specifying ADPRO is the minimal bandwidth requirement for its transmission systems. From the dawn of the digital age, ADPRO products required a lower bandwidth than other products in the field and this was very important during the early days when there was only IDSN. Now it has become just as important again with the use of 3G; it is vital that the product does not take up all the bandwidth that is available. As well as using ADPRO transmission technologies, Netwatch became one of the first adopters of analytics. When the Presidium technology was introduced by Xtralis, Netwatch trialled it immediately. (It has subsequently chosen it as an essential part of its 'rapid deployment unit' for use on temporary sites). Although some early analytics systems that were trialled were cumbersome to set up and not particularly engineer-friendly, the ease of set-up for Presidium has really impressed the Netwatch engineers.

### Analytic detection

Analytic detection allows Netwatch to monitor sites and scenarios that it would not have been able to work with using traditional







## Safety demos

The manufacturer Xtralis was moving to new premises in October: The new facility, at The People Building in Hemel Hempstead, will house the company's UK operations and include customer life safety and security demonstration suites. On display will be ADPRO video, audio and passive infra-red products with an emphasis on the ADPRO FastTrace 2 video and audio transmission. Also there will be newly acquired Heitel products. □



## CONTINUED ... FROM PREVIOUS PAGE

passive infra-red sensors (PIRs). Presidium enables the Netwatch engineers to filter out foliage, and the opening of gates and doors, thereby significantly reducing false alarms and therefore improving the quality and reliability of the information coming back to the operators at the Netwatch Communications Hub. This in turn enables them to make better-informed decisions. The proof of the pudding is in effectiveness of the systems installed and benefits, and there are many examples – especially where analytics are deployed. At the Coolock Retail Park in Dublin, for example, Netwatch installed long-range ADPRO detectors and analytics on a camera system that enables intruders to be detected at up to 100m from the camera. Cleverly, the system allows for 'rules based detection' whereby directional analysis allows specific rules for intruders. For example a person moving away from the shop front is ignored but an intruder moving towards the shop front is detected, and an alarm is triggered. Another of the 'rules' allowed for is loitering; this allows a person in the shop front area for less than a minute to be ignored, but anyone 'loitering' for any longer will trigger an alarm. At the Greystones Harbour Development in the Irish Republic, Netwatch is using thermal cameras that can identify an intruder at ranges of up to 600m. The Netwatch Intervention Specialists are alerted to human movement at this distance

whereby with traditional detection techniques an operator wouldn't even 'see' a target at such a range.

### Utilities

Within the utilities sector, Netwatch has installed ADPRO technology at more than 40 sub-stations belonging to the Irish utility, Electricity Supply Board (ESB). Again, ADPRO analytics help to detect movement through the substation infrastructure, even when there are cables poles and supports in the way. Traditional detectors would have their infrared detection capability blocked by these structures; not so the ADPRO technology which picks out whatever it can see. Elsewhere, ADPRO has also recently proved its worth at a vehicle storage facility that can hold 15,000 vehicles. Netwatch installed a system that incorporated 40 infra-red cameras, thermal cameras and analytic detection from ADPRO. The technology replaced the customer's manned guarding service and consequently led to an annual saving of 200,000 euros. At a newly developed rail location that has seen a 300 million euro investment and features three new transport hubs, Netwatch installed a security system that relies upon Presidium Analytics and FastTrace video transmission. As a result, though 40 incidents occurred over the first year, there was no recorded damage or loss in that time. More incidents are detected early and

action taken before any damage can be done. The savings in cost – not just from criminal damage or theft but also in downtime while that business recovers – can be dramatic. But why are analytics so important? In the Communications Hub the analytics firstly can detect and mark several objects moving in the alarm image. The result is that the Intervention Specialist is presented with more intelligent information on which to determine a similarly intelligent response. He is able, in effect, to see situational information in real time. The analytics marks – exactly – the cause of the alarm, in the alarm image. With traditional detectors the Intervention Specialist had to ascertain what had caused the alarm – all of which took vital seconds. When speed of response is everything, a few seconds can make all the difference.

### Screening out

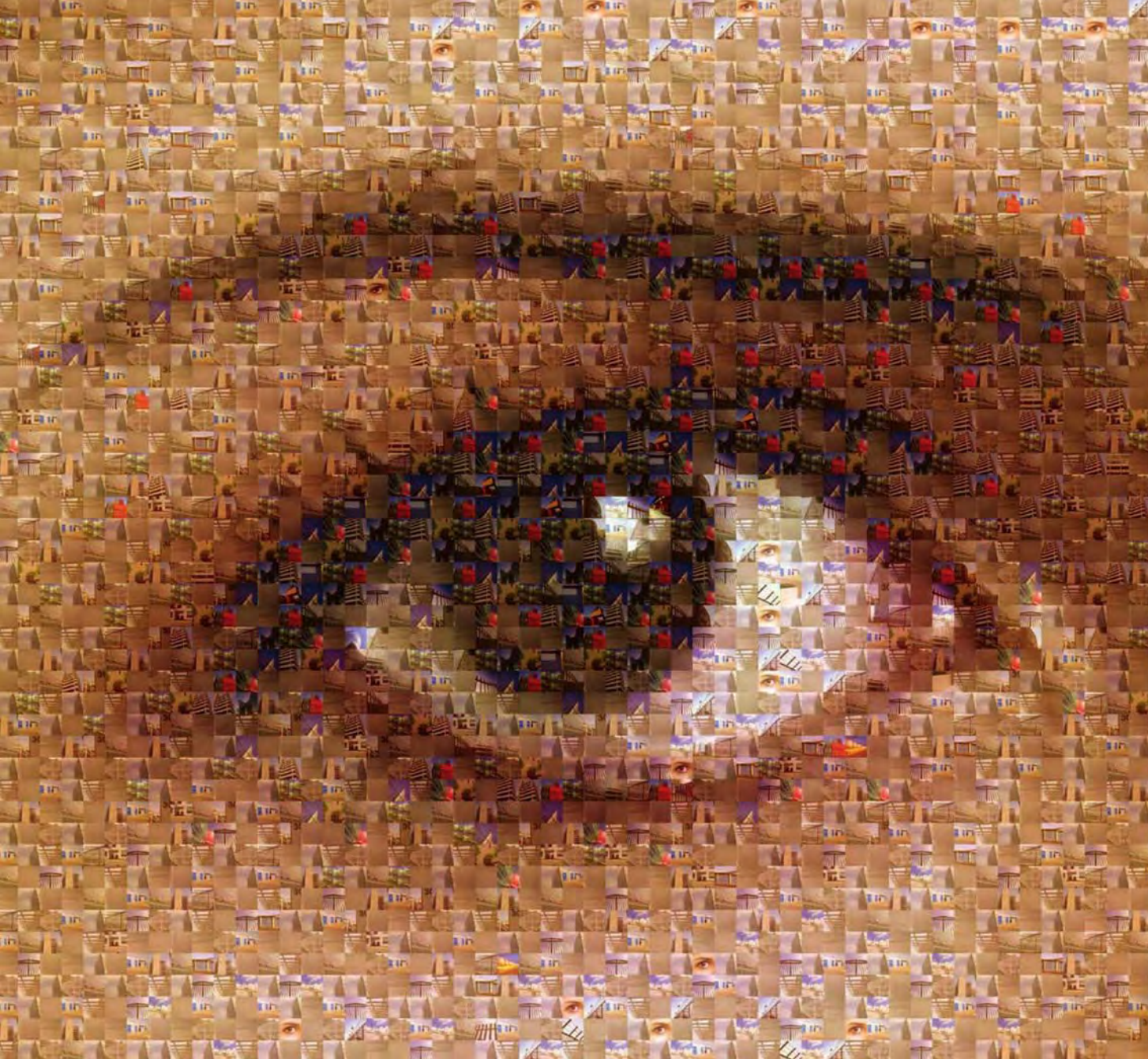
The analytics also results in fewer false alarms being generated on site and therefore transmitted to the Hub. This is because the algorithms are more powerful in screening out alerts such as weather related heat, solar reflection off surfaces, foliage - alarms that would fool a 'traditional' detector in signalling an alarm. Today, the Netwatch-ADPRO combination is helping to protect more than 750 sites not just in the UK but in Ireland, Spain and the USA, and in varying environments. □



### HAPPY

**'I have three simple aims - I want us to cut crime, cut costs, and continue to develop the culture of the organisation ...'**  
The new Met Police Commissioner Bernard Hogan-Howe.





## See the big security picture

Eliminating potential risks to people, property and business continuity starts at the perimeter, with reliable intrusion detection.

ADPRO Presidium by Xtralis is a Video Analytics Motion Detection System classified as a primary detection system by the UK Home Office Scientific Development Branch. Incorporating more than 20 years' R&D, the ADPRO Presidium features technology that delivers maximum performance even in the most demanding environments.

Easy to install and setup, the ADPRO Presidium and Presidium Mini can be used either stand-alone or in combination with other ADPRO technologies to provide the ultimate in pro-active security.

For multi-site security, ADPRO is the technology that helps you see the bigger picture.



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