

Breaking new ground in evidence gathering and presentation for major investigations



West Midlands Police is the second largest service in the UK. Its jurisdiction is at the heart of England, serving almost 2.6 million residents across major cities from Birmingham and Coventry to Dudley and Wolverhampton. West Midlands Police has 8,638 Police Officers, supported by 4,211 police staff, 653 Special Constables and 761 Police Community Support Officers with which to maintain law and order across a 348 square mile area.

The force's Major Investigation Unit (MIU), based in different locations across the Midlands, operates seven days a week. It comprises of an Evidence Presentation Team of six to manage audio-visual evidence from serious incidents spanning rape and murder to kidnapping and serious fraud.

Transforming Evidence Gathering

Processing the vast quantity of images collected from CCTV cameras is a huge problem in terms of manpower, meaningful analysis and presentation in court. So in 2006, West Midlands Police set about tackling the issue by using technology for more effective use of this evidence - from pinpointing it through to presentation in court - to help secure convictions.

The Aston Riots trial was the catalyst to transform the way technology was used by police in major investigations. There had been major riots and public demonstrations involving serious criminal offences in the UK before but Detective Sergeant Andrew Townsend, at the MIU commented, "What was different with this investigation was that it wasn't a situation where it was a straight forward confrontation between a group of people and the police in a confined space. The Aston Riots took us into uncharted territory where there were two groups of people in the community fighting each other but scattered across a wide area."



Challenge

- Find a new, more efficient approach to process mountains of video evidence
- Sift through over 5,000 hours of video to track and identify suspects
- Present that evidence in a coherent, digestible way in court
- Create a technology blueprint for analysis and presentation of evidence for future investigations

Solution

- DEMON analyse intelligently automates the searching and analysis of video surveillance from CCTV, video, photography, images such as maps through to mobile phone footage
- Easy-to-use DEMON edit to highlight suspects and create targeted evidence to meet stringent Home Office and industry standards
- DEMON present enables officers to compile evidence from a variety of sources, into a single seamless presentation for court

Benefits

- Automation allows greater collaboration, saving significant time during major investigations
- DEMON present provides a new, flexible and efficient way to compile and present high-quality, electronic evidence in court
- Provides the police with effective management information for the first time
- Time spent in court reduced by over a third
- Facilitated the securing of 11 convictions –from the Aston Riots trial to date



Major Investigation: The Aston Riots

Operation Siluga

The Aston Riots in 2006 code-named 'Operation Siluga' is one of the country's largest trials in recent years. It came about from an unsubstantiated rumour that a young, Afro-Caribbean woman had been raped by an Asian man. This rumour was fuelled by pirate radio stations leading to a peaceful demonstration prior to a public meeting. However, the mood changed quickly, resulting in numerous individuals donning masks and causing an affray moving in all directions across the Aston area. This situation led to 271 crimes and 2 murders and presented Detective Sergeant Andrew Townsend with a mountain of over 5,000 hours of potential evidence. This spanned CCTV (drawn both from public and private organisations such as local businesses), photography and maps through to mobile phone footage. Townsend and the team had the onerous task of wading through the video footage to find and present evidence in order to bring justice.

Townsend said, "The big issue was identifying suspects before masks were used and then tracking them through the mounds of different types of evidence. This was a huge task in itself – added to which - we then needed to present that in a coherent way for a jury to have any hope of using it to secure convictions. He added, "We turned to Scyron to develop a different approach after having used some of its technology to highlight and edit key areas of electronic evidence in the past."

A Different Approach

The scale of the investigation required a completely different approach. In previous cases, the police had relied on manual gathering, processing and presentation of video and photographic evidence. However, Townsend noted that, "This just was not possible with this investigation". Then once in court, unwieldy, fixed presentation technology was used to output compilation DVDs of the CCTV evidence. This proved both expensive as it could run into hundreds of thousands of pounds – and was very inflexible. "By nature, a trial of multiple defendants can be very dynamic with defendants changing their pleas. Plea changes will often necessitate obscuring or masking out the individual who has changed their plea from the evidence presented in court. The upshot was that more often than not, pre-prepared evidence on DVD was time-consuming and very costly to change," said Townsend.

Electronic Evidence Gathering

The MIU started work with Scyron to adapt its technology to meet the needs of the investigation. This began with electronically storing, reviewing and classifying evidence.

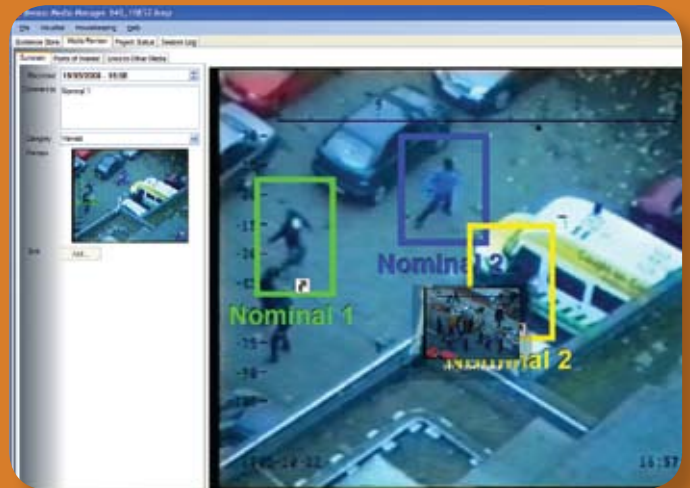
Collaboration

Previously, there was an intensive, manual process of classifying evidence from different tranches of CCTV and then recording it on paper records. Often, it was possible for officers to lead into and overlap on each other's lines of enquiry, duplicating effort.



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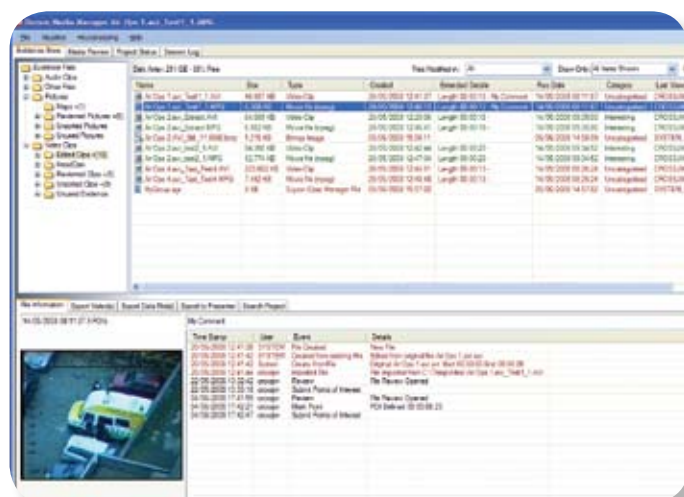
Detective Sergeant Andrew Townsend
West Midlands Police



So the next step involved Scyron and West Midlands Police creating the ability for four officers at different personal computers to work concurrently on the evidence.

“This was very powerful as, for the first time, it allowed collaboration and created an electronic audit trail of evidence that could be annotated and cross-referenced for different suspects,” said Townsend. The technology allowed them to track in excess of 50 different potential offenders and provided a significant increase in the productivity to progress the investigation.

“This electronic collaboration was like suddenly adding new officers onto the investigation as it immediately cut through the workload in contrast to the previous manual system,” explained Michael Wilks, Chief Executive of Scyron. “Also, importantly, it gave Senior Police Officers leading the investigation, crucial management information standardised in one format on a Microsoft-based platform for the first time.”



Presentation of Evidence

Once having gathered evidence it was vital for officers to be able to quickly compile evidence that was clear and easy to follow for the jury. Townsend had originally envisaged a fixed, linear presentation of events. However, after discussion with Scyron, he realised that they could develop a more flexible electronic presentation tool that could become a new way of working.

Jointly, they developed a versatile, non-linear presentation system (called DEMON present). It had the ability to present evidence instantly with minimal training for officers, without recourse for specialist outside video companies that still had to be overseen by officers. “We now have a flexible presentation system to meet the needs of the 21st century judicial system in the UK. We can switch easily to present different incidents. For example, we can immediately pull up the required evidence to satisfy questions from forensic scientists or the prosecution and speed up presentation of evidence to support the judicial process,” said Townsend.

Andrew Townsend concluded, “Close cooperation with Scyron in the R&D process has evolved the technology in line with our needs. We were able to produce a solution to our problem, rather than what regularly happens where existing technology is shoe-horned in and doesn’t really do the job.”

Nicholas Smith, Sales Director at Scyron commented, “Now, we have technology that gives the judicial system – from the Police to the Crown Prosecution Service and the Defence – the right information at the right time with which to make effective decisions.”

“Without this technology it was felt that the case would have lasted at least another three weeks and, also, that it would have been extremely difficult for the jury to be able to follow the evidence against the individual defendants. ”

Superintendent Una Cooke,
Head of the Major Investigations Unit



The future

Superintendent Una Cooke, Head of the Major Investigations Unit at West Midlands Police, said, “Without this technology it was felt that the case would have lasted at least another three weeks and, also, that it would have been extremely difficult for the jury to be able to follow the evidence against the individual defendants.

Michael Wilks added, “In the future, we are developing ways of using this technology platform for volume crime which has the potential to make a quantum leap in how technology supports policing in the future.

Scyron is exploring how the technology can be used at the scene of volume crimes such as shoplifting or assault. Officers have found that presenting video evidence to a defendant while being questioned results in more guilty pleas, saving police time. Also, there is the potential for such volume crime evidence to be cross-referenced with the existing electronic evidence from the Major Investigation Unit to tackle crime. The end result is a powerful, evidential management tool.

Find out more about West Midlands Police at
www.west-midlands.police.uk

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