Business Benefits – Automatic Number Plate Recognition (ANPR)

Background

ANPR within West Yorkshire Police is a complex and technical area of business and no less than five separate business cases have been submitted to thoroughly alter and improve an old ANPR network which has evolved over a number of years but which was increasingly approaching the end of effective service life and was no longer providing maximum benefits in supporting the strategic aims of the force and the PCC.

A key driver in project was also a project to implement a new National ANPR System (NAS) meaning that WYP need to maintain service in the interim while ensuring readiness for connection to the NAS once available.

The overall aims of the project are summarised below.

Scope	Date Realised
Replace and enhance the existing fixed camera network, to provide significant additional capacity within the five local authority districts, additional capacity on the high speed road networks and a major transport hub.	All districts completed June 2016 High speed road networks ongoing
A vehicle programme to replace obsolete ANPR readers within force on 25 RPU vehicles. Equipping 6 armed response vehicles and the force command vehicle and to provide additional functionality within district by equipping 20 Vauxhall Astra and 40 Peugeot cars.	June 2016
An upgrade to the IT network in order to cope with a significant increase in digital traffic from the increased ANPR reads and to ensure effective, capture, storage and retrieval of data.	Ongoing
Back office hardware and software was to be significantly changed and updated to ensure migration of existing data, capture of greatly increased data traffic, ensure disaster recovery and to enable WYP systems to be compatible with the National ANPR System. This also included an ambition to standardise our existing network to provide a common ANPR solution across the force area, thereby reducing costs and improving efficiency	Ongoing

Outcomes Sought in the Business Case

- To increase the number of camera feeds allowing increased opportunity & accuracy of vehicle tracking - live time and retrospective.

- To increase the number of ANPR equipped vehicles allowing increased opportunity & accuracy of vehicle tracking - live time and retrospective.

- ANPR expansion to further develop West Yorkshire Police's ability to reduce and detect serious acquisitive crime by providing all five districts with increased ANPR camera coverage and develop a comprehensive fast roads coverage.

- Increased accuracy and greater 'reads' to reduce the number of police units required to attend the locality to intercept a vehicle. It will enhance opportunity to detect crime. It will provide significantly more intelligence.

- More cameras will lead to more 'hits' of vehicles with markers. This will, in turn, increase proactive policing outcomes.

The business outcomes were directly linked to the police & crime plan and articulated as follows.

Working together and preventing crime
ANPR camera cars feed into the intelligence database. This will increase capacity allowing Police and the five Local Authorities to work together in partnership sharing some data to make communities safer.

Crime and re-offending being reduced
It will be a key tool to reduce burglary by live time and retrospective investigation, and live time intercepts of suspect vehicles. Likewise, it will continue to be an effective and expanded tool to trace vehicles, for example, vehicles connected or used in Child and Sexual Exploitation, trafficking, hate crimes and sexual violence. Where vehicles are connected to known offenders, it can be used to track and intercept those vehicles and reduce the prospect of re-offending.

Anti-Social Behaviour is reduced
Anti-Social behaviour by the use of vehicles will be addressed even more comprehensively with increased ANPR vehicle camera coverage and thereby impact positively on road safety.

Victims and witnesses are supported
Business crime will be recognised by those who use vehicles to commit crimes such as commercial burglary and theft by shop.

Local, regional and national threats risks and harm are tackled

The increased network will allow a response to national threats, working with key partners and stakeholders, especially around key locations such as iconic sights, busy shopping areas and night life, transport hubs and airport. Those who are connected to the use or supply or drugs can be tracked and intercepted by the use of the increased coverage.

Criminal justice system is effective and efficient
It will be efficient and effective to create further confidence. An example would be that it could be used to identify very specific and intelligence led grounds for the use of police powers, such as stop and search.

The system will be fully compliant with all Legislation including privacy impact assessments, ensuring full integrity and will withstand scrutiny from any interested party. This essentially means each vehicle will have its own Privacy Impact Assessment that will be undertaken by WYP and the local authority and work within the all legal frameworks. Furthermore this has been, and will continue to be, consulted upon through local district Independent Advisory Groups (IAG) and the Force IAG

Communities are listened to and involved
Communities are to be consulted through local Independent Advisory Groups – seeking views, balancing needs of different communities to make them safer. Local district IAGs have been held and no issues or opposition has been received since January 2015. The IAGs have been involved at each stage of the development of ANPR and provide a voice to the project. The Force IAG on 12th March 2015, received unreserved support and some members visited the ANPR Office on 17th March 2015 to gain a comprehensive understanding of ANPR.

Police and partners are resourced
This directs front line policing activity, making it more efficient allowing increased productivity. We will invest in our people to be able to analyse data and to understand crime patterns and anticipate demand, and prevent crime. The ANPR back office function itself has been expanded by 300% since January 2015 to anticipate new demand and provide 24 hour cover.

The project, as a whole, will innovate how we do business and exploit the very best available technology – and we will deliver it together with external providers and local authorities.

Conclusions

Working together & preventing crime
We have employed ANPR technology that has been directly responsible for the arrest (from 2015) of 172 burglary offences, 101 theft from motor vehicles, 84 theft offences and 107 warrants. ANPR reads have increased from approximately one million reads per day on the old system to over three million on the new. (The enhanced system also allows for growth of up to three times that number.)

NOT PROTECTIVELY MARKED

Crime and re-offending being reduced
ANPR has been used to place markers on cars of those engaged in serious and organised crime, and firearms offences. 11 vehicles have been stopped and persons arrested for firearms offences.

Anti-Social Behaviour is reduced
As a result of ANPR, especially in cars, we have seen a 180% increase of vehicles seized for either no insurance or Anti-Social behaviour.

Victims and witnesses are supported
In 2015 we located 8 high risk missing persons who were in cars, and we had placed alerts on ANPR. High risk missing persons are considered to be either vulnerable to themselves of others. Usually it's because there has been a threat of self-harm or suicide. In 2016 this has been 4 to date.

Furthermore we have developed a much greater understanding of Child Sexual Exploitation and the links to ANPR. We have seen an increase of 800% intelligence submissions linking the two. This has enabled the stopping of vehicles suspected to be involved in CSE and last year and this year, 11 arrests for CSE offences.
In October 2015, a female, who had been kidnapped was rescued by WY Police who reacted to an ANPR alert and her four kidnappers were arrested.

Local, regional and national threats risks and harm are tackled
ANPR continues to be used by not only WYP but nationally, to counter a terrorism threat and greatly enhances our role in tackling the threat from armed crime and terrorism.

Criminal justice system is effective and efficient
Significant training and development of back office and district's staff has taken place to become familiar with the new system and where they previously has no capacity. Police crews are now equipped with new advanced and dependable equipment. The system is fully auditable to ensure the data is controlled, managed and the law applied to its retention and use.

The Roads Policing Unit vehicles have brand new, bespoke software to WYP that allow efficient working by fast links to all computer systems and also PNC quick links to reduce Airwave traffic. This, in part, has allowed reduction in staffing in the Force Control Room because not as many PNC checks are required.
We were successful in securing our own in house engineer saving WYP £280,000 annually. This enhances our capacity to be effective and deliver fast responses to any ANPR issue.

Communities are listened to and involved
We have continued to work hard with all groups within West Yorkshire and in particular Independent Advisory Groups. We have hosted over 200 visitors to the ANPR office since 2015 to demonstrate it's worth and value. We have worked hard to foster excellent relationships with CCTV from each local authority. We have been in continual dialogue

with all groups to be open and transparent about the overall aim of ANPR, and visited local community groups to talk about the impact and benefits, whilst also allaying concerns of intrusion.

Police and partners are resourced
All five local authority areas have a widespread and resilient ANPR coverage.
We are the first Force in the UK to put ANPR in district cars. This allows roads to be covered that never were before and greatly augments the fixed coverage.
Greater information sharing is possible through ANPR intelligence from multiple sources.

NOT PROTECTIVELY MARKED