



Local Authority and Police collaboration creates unique 3G/4G-enabled ANPR and CCTV eco-system

Unifying the ANPR and CCTV infrastructure for Surrey

- **Surrey County Council and Surrey Police share resources to bring together one county-wide monitoring and detection platform**
- **3G/4G secure data connectivity creates more flexibility as deployments gather momentum**
- **Both organisations turn to Wireless Logic Group for a 'one stop' multi-network connectivity and secure infrastructure solution**

Surrey Police and Surrey County Council have demonstrated how joined-up thinking to amalgamate shared resources has delivered a superior ANPR and CCTV infrastructure where both organisations utilise a single unified platform. The system is further enhanced by the employment of both ADSL and increasingly 3G/4G connectivity delivering resilient and secure connectivity, particularly in relation to the Police data.

The partnership has evolved following the Traffic Management Act 2005, where Surrey Council Traffic Operations set about establishing a county-wide Camera system to monitor, control and inform on traffic flow and status. Designed to keep the county moving and with a keen eye on the impact to Surrey's business economy, the council's strategy involved a complete root and branch overhaul of incumbent systems, with investment in areas such as ADSL fibre and the introduction of secure mobile connectivity.



Similar requirements within the same area

As the project gathered pace, Surrey's Police Force ANPR team were made aware of the growing system which would start to 'mirror' the infrastructure needs of their own monitoring systems. With the realisation that 'cameras looking at cameras' might be the result if both organisations continued their separate strategies, a working party soon developed into a full-stream collaborative partnership where one eco-system could serve the needs of council traffic management and real-time ANPR requirements of the force.

The joint system that has emerged and evolved over recent years now employs all current certification, where, for example cameras are specified by the council and then accredited to National ANPR Standards for Policing (NASP) by the force. By merging technologies, Surrey Police are capitalising on incumbent communication platforms along with the overlay of additional security protocol including secure pipes directly from Surrey County Council's central data centre directly into the force's data hub.



Two users with unique needs through one system

Both organisations utilise different levels of access to the camera-based system. The council monitors circa two in ten vehicles to record time between 'nodes' and then measure results against profiled figures for any given point, thus highlighting whether traffic flows are within limits or if there's a need to inform road users of delays and, if required, alter road signalling to address blockages. In contrast, Surrey Police requires more data-heavy live feeds to manage reactive and proactive detection or criminal-based activity. It is essential that the cost of data is apportioned appropriately to reflect usage levels per camera site.

Mobile connectivity and infrastructure with security built-in

Focusing on the 3G/4G aspect of the joint infrastructure, Surrey County Council turned to Wireless Logic Group, Europe's leading IoT and M2M Connectivity Platform provider. Beyond mainstream specialist mobile data connectivity, the Wireless Logic solution delivers a ready-made private infrastructure onto the council and police systems, enabling fixed private IP to each SIM-based camera and secure APNs into each mobile network used across the camera estate.

Wrapping up the entire 3G/4G offering with secure VPN services, Wireless Logic can provide an OPEX-based highly secure and redundant mobile offering, with inherent flexibility due to the ability to manage multiple mobile networks through their 'one window' platform. In terms of operational benefit, Wireless Logic can deliver connected solutions based on signal strength and/or usage need, so that each connected asset is optimised for the strongest mobile connectivity vs. cost of data used.





Control and data management

A key factor of the Wireless Logic's management platform SIMPro, is the ability for the council, the force and their maintenance/installation teams, to manage and monitor each SIM-enabled camera's usage and performance. This has a number of advantages including the live notification of any connected asset using excessive amounts of data, with examples including a camera's settings incorrectly set to capture ultra-high HD images which are not required. In these cases, alerts on SIMPro can notify the infrastructure team to detect malfunctioning cameras and take appropriate action.

Another operational advantage is the ability to spread data loads through aggregated tariffs. For both organisations, there are times when specific cameras may consume more data than average. When this occurs, the management platform can automatically reassign data usage so that a low-consuming location can cover the usage of the busier camera. Aggregating data within tariffs gives both the council and force reassurance that each month's forecast budget for connectivity remains on track, with little chance of 'billshock' as unforeseen data usage is avoided.

With the dynamic nature of mobile connectivity complementing the more fixed nature of ADSL, for camera installations where access to the existing fixed line network is not easily possible deployments can take place rapidly in hard-to-reach locations with connectivity provisioning all managed by the council's in-house technology team. Whether for a specific policing requirement or a major road event like Prudential Ride London which spans a large area of Surrey's roads, the flexibility of mobile connectivity can ensure prompt set-up and deployment of monitoring cameras. At Surrey County Council's HQ for traffic operations, a stock of SIMs is on hand from which they can be set live onto a range of tariffs - all in the hands of the SIMPro platform user.



Future-proofed

The introduction of UK Police's National ANPR Service (NAS) will have relatively little impact on the way the current infrastructure is set up. With all data being channelled into Surrey County Council HQ and then split onwards to Surrey Police, a key factor in the whole set-up has been to make sure such substantial amounts of information are fully encrypted and safe as they enter the council's IT infrastructure. This has involved close cooperation with the council's Information Management Technology (IMT) team who have closely monitored and supported the continuing roll-out of the county-wide camera system.

NAS will mean less data stored within Surrey Police with the requirement for only five or so days of records, with all collected data being sent securely to the NAS data centre. But knowing that the Surrey infrastructure will now be part of a more cohesive network of cameras means that the resilience of the system is even more critical to ensuring safety, security and consistency on a national basis.



The council and force's procurement process has cemented Service Level Agreements (SLAs) with all providers associated with the ANPR and CCTV eco-system. This also counts for the mobile connectivity requirement with strict SLAs in place for Wireless Logic - a frontline support desk responds to any requests from the Traffic Operations team, with one point of contact covering all aspects and networks employed.

Commenting on the Surrey County Council and Surrey Police partnership, Tim Palmer of the council and Andy Lloyd for Surrey Police acknowledge the importance placed on working with aligned connectivity partners:

Andy Lloyd, ANPR Data Manager, Surrey Police states: **"For Surrey Police, the ability to work closely with the council has meant zero duplication of effort as we police the county's roads. Together, by sharing resources, we can access the best technology, connected by the most flexible communications platforms and jointly managed by teams with a common purpose."**

Tim Brown, Traffic Operations Team Leader, Surrey County Council says: **"The taxpayer is saving considerably from what is a more streamlined and focused monitoring and policing camera system for Surrey. With multiple benefits in both today's structure and the ability to easily upscale, providers like Wireless Logic Group have enhanced the partnership by delivering solutions that meet and surpass our connectivity leads. Their own infrastructure, management platform and overall approach give us confidence in operating a system that is fit for purpose, where security and cost-effectiveness are key."**

For Wireless Logic, working with such a successful public sector initiative illustrates how innovative thinking and best-practice can benefit everyone.

Jon-Paul Clarke Business Development Director, Wireless Logic Group concludes: **"The requirements from Surrey County Council and Surrey Police have been clear from the outset – security, resilience and management control. By optimising every aspect of our connectivity solutions, this is a great example of two forward-thinking organisations combining their own needs into one unifying infrastructure. We are excited about this model and the opportunities it might bring as other police forces and local authorities review how their ANPR and CCTV strategies could become more aligned."**





**For more information on ANPR
and CCTV secure connectivity**

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