Subject:	RBWM's CCTV System Review and Update
Reason for briefing note:	Infrastructure Overview and Scrutiny Panel request for an update following implementation of the capital project to replace the original community network of CCTV in RBWM
Responsible officer(s):	David Scott – Head of Communities
Senior leader sponsor:	Andrew Durrant – Director of Place
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Royal Borough of Windsor & Maidenhead

SUMMARY

The replacement of the Borough's CCTV systems and associated infrastructure was implemented in 2018/19 within the approved Capital cost of £1.3M. This was followed by a further period of system refinement in 2019/20.

The net annual revenue cost of the CCTV and Control Room Service had been reduced, although some of the original savings targeted have not been sustainable.

The current system continues to provide a very powerful deterrent and asset with respect to the prevention and detection of crime and contributes to improved community safety and general public perception and confidence of RBWM being a safe borough.

Work is ongoing to ensure the system is used effectively, is resilient and is fully exploited.

1 Background

1.1 As part of the 'Delivering Services Differently' work programme back in 2016/17 the need to update our community network of CCTV was identified, to transmission the analogue system to a digital system was agreed. This was intended to refresh outdated technology with much more current technology and to seek financial savings that twenty first century could offer.

1.2 A detailed technological review of the public space community network of CCTV was undertaken using an external specialist which result in a capital investment project being approved in August 2017 which was to replace the CCTV systems, and the operating platform and infrastructure. The solution proposed was to move towards a wireless network solution and so to reduce the reliance on a cable-based network that the analogue system used.

1.3 The community network that was to be replaced was installed in the early 1990's and was implemented to support a range of benefits towards improved community safety. RBWM is a high-profile location for a number of reasons and the network helps both

the Borough and TVP to deter and detect crime and as a key aid in the response to and the management of security incidents in the area.

1.4 The overall network and operation comprise of four main components in addition to the team of staff who operate the control room services, 24 hours a day, 7 days a week and 52 weeks a year. In addition to the monitoring and management of the CCTV network, the Control Room Staff provide the core of the out of hours operational cover for the Borough. The four main components are:

- The cameras and poles,
- the networks connections
- The control room displays and monitoring equipment and
- the software platforms that enable the real time images to be relayed and recorded and recalled when needed for investigation and evidential purposes

1.5 The community network comprises of approximately 260 camera that are either in the community across the town centres, outlining rural communities or in RBWM owned car parks. The network of cameras in made up of a mixture of high definition pan/tilt/zoom (PTZ) cameras, high definition LED light cameras, high definition fixed view cameras, and standard definition cameras.

1.6 The network in provided by a mixture of radio wave wi-fi type transmitter and fibre connections.

2 KEY IMPLICATIONS

2.1 Following the market review and the procurement process CDS Systems were selected to be the provider of the new system and in conjunction with our in house IT team, and the Boroughs external specialist advised Global MSC Ltd, developed the final details of the replacement system.

2.2 The project replacement process began in late 2018 and was more or less completed subject to final snagging and system refinements by April 2019. The new system offers considerable additional functionality enhancements as a result of the new systems and the Control Room Team were re-trained to be able to develop their knowledge and use of the systems.

2.3 As the system is live 24 x 7, the replacement project took the opportunity that as there was inevitably going got be some disruption caused by the equipment change overs to refresh the Control Room itself as it is very difficult to undertake this sort of routine building / control room space and maintain the service and security under that the normal operation procedures require. The system operates under the guidance and requirements of the Surveillance Camera Commissioner's office (SCC) and the Surveillance Camera Code of Practice (SC Code).

2.4 All CCTV Operators are trained and hold Security Industry Authority (SIA) licences for, "Public space surveillance", which is the industry standard for this type of role.

2.5 RBWM is currently working towards gaining third party certification scheme from the SCC, which will confirm our compliance with a range or regulations including RIPA (Regulation of Investigation Powers Act 2000), and whilst the third party scheme is

currently a voluntary scheme it is expected this will become a mandatory requirement in the coming years.

2.6 The upgrade to a digital system and solution is allowing RBWM to work with Thames Valley Police to adopt a digital evidence management system (DEMS) which will in the fulness of time, allow digital evidence to be shared with TVP and their case management systems, improving security and continuity of evidence and reduce the resources required to investigate incidents, crimes, and ultimately support the prosecution of criminals.

2.7 Camera images are retained and stored on a rolling basis for a period of 31 days, after which the images are deleted. The new Control Room layout includes a Review Suite which can be used by the Police without the direct interruption to the day to day operations of the control room that the previous systems had. This will continue to be a useful feature as the DEMS is implemented.

2.8 The system also enables live images of incidents to be sent to the TVP control Room at Kidlington.

3 DETAILS

3.1 Once the backbone of the new system was completed in April 2019 there was a further period of system refinement to test and resolve a number of issues, that became evident over the subsequent year, these were addressed under the contract implementation arrangements. The main contractor worked with RBWM to address and resolve these items, which were a mixture of issues including camera type / location, image quality under differing light conditions, system connectivity and resilience, network capacity and speed. The increase in image quality the new cameras provide significantly increased the bandwidth demands, and the additional functionality of some other aspects of the system, and combined with the general shift towards ‘wireless’ connections to reduce the annual operating costs associated with the dedicated fibre connections, and the surge in the wider community use of wi-fi, required some network modifications to be made.

3.2 There have been a number of examples where the wireless links have not been as resilient as demands require and changes to frequency or types of links have been implemented to overcome these issues. New buildings, increased tree canopies (density and volume), competition with other wi-fi sources, and other street furniture changes have all required minor changes to be made to ensure the overall connectivity and capacity in not causing camera links to be lost or quality to be compromised.

3.3 Whilst there has been a significant reduction in annual operating costs through the reduction in BT dedicated links, some of the wi-fi connections have been reversed to ensure the required resilience. The backbone of the link between the Maidenhead part of the system and the Windsor hub is a good example of where the wireless solution simply could not offer and provide the required quality of connection due to the volume of data being transferred. This has been returned to a fibre link and has proved much more resilient and has capacity to additional signal traffic if required. A number of the remaining wireless connection links are still being actively reviewed and options explored to determine the best long-term solution to ensure reliable

connectivity. It is expected that some of these may need to be returned to fibre connections.

3.4 As part of the upgrade a number of new cameras were added to the network to fill in blind spots or provide additional deterrent or increased safety measures. With hindsight the original network design did not include sufficient latent capacity for the expansions that have been made.

3.5 The implementation of some new camera, or the rearrangements replacement camera to exploit their full potential has in some areas proved slower than originally expected, but this is generally because of the need to coordinate a number of different contractors who need to operate in sequence and cannot operate in parallel.

3.6 Some of the earlier strategic and tactical ambitions to work in conjunction with the Police and their other force-wide CCTV systems ambitions has proved frustrating and slow, although the operational joint working continues to be highly effective, and routinely results in positive resolution to incidents and crimes that would simply not be possible without a community network of CCTV cameras.

3.7 In the original business case, it was envisaged that the size of the control room team could be substantially reduced from what was a team of 10 FTE plus a service manager. Experience has evidenced the original reductions were not sustainable. There is now a shared Service Manager, a dedicated CCTV Lead and 8 CCTV Operators. There has been a reduction of one full time supervisor and the service manager role is now shared with other services, and so the reduction has been approximately a 1.5 FTE net reduction. This is two FTE less that was originally targeted.

3.8 The impact of the Covid pandemic has tested the staffing resilience and arrangements and the team have adapted and flexed throughout the 2019/20 period to ensure the Control Room services have remained operational 24 hours a day seven days a week. CCTV Operators have been either being ill or self-isolating due to Covid. The service has been supported by the members of the Community Wardens team who are SIA licensed. There have been a number staff changes over the last two years through general turnover, (retirement, careers changes and developments), and the tram is now back to full quota.

3.9 The CCTV and Control Room staff team deal with a huge range of service requests through out the day and night and at weekends. They are very effective at dealing with emergencies and distinguishing between what is a genuine ‘emergency and urgent’ situation from others that should be and are dealt with by services as ‘business as usual’ on the next available working day.

3.10 There has been a successful push to maximise the use of the system. It has been utilised by the Licensing team to gain evidence of licence breaches, the Insurance Team to rebut claims against the Royal Borough and the Community Warden Team to tackle ASB. It is frequently used to monitor officer safety and to search for missing, and find, vulnerable members of the public. The system has been used during the pandemic for example to evaluate social distancing.

3.11 The network of cameras can continue to be extended if funding is available, such funding can be through S106 contribution, contributions from partner organisation

such as Housing or Residents Associations or Parish Councils, or the borough's own capital programme. At least Parish Council has decided to fund a new and additional camera, which is currently being installed and made live. It is expected this will add to and support the prevention and detection of crime coming into the parish, as there is a local perception that the village is used as a cut through from the adjacent motorway network at key times, and for other criminal activities.

4 RISKS

4.1 The replacement CCTV system has enabled a number of obsolete and low-tech systems to be superseded by a modern powerful system. There is ongoing work to further improve the reliability of some weaknesses in the wireless network.

4.2 The small size of the CCTV team and the need to staff the service 24 x 7 means there is a low level of resilience, however the team has coped well with the significant challenges that the Covid Pandemic has given the service.

4.3 The community camera are signed to enable the public to be aware of who operate the camera network. This meets the requirements under the legislation. The borough has seen a significant increase in requests for CCTV based evidence and these requests are dealt with through the Data Protection Officer in order to ensure they are correctly processed.

4.4 The monitoring of the camera network is covered by Data Privacy and Impact Assessment and each camera is subject to Operational Requirement in accordance with the Data Protection Act.

5 NEXT STEPS

5.1 Develop and resolve the ongoing wireless links so as to secure connections to all cameras that are reliable and resilient.

5.2 Continue to work with TVP towards the implementation of their DEMS developments.

5.3 Continue to develop and refine our third-party accreditation scheme in preparation for this being a requirement at a later date.

5.4 Develop an annual programme of works to ensure trees or other external factors do not compromise or weaken the resilience of the system.

5.5 Work with suppliers to complete outstanding camera installations.