



<b>Title</b>		Software and Hardware Upgrade for CCTV Service
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<b>Wards of the District directly affected</b>		All
<b>Is the report private and confidential and not for publication by virtue of a paragraph of schedule 12A of the Local Government Act 1972, following the Local Government (Access to Information) (Variation) Order 2006?</b>		In part, yes & commercially sensitive appendices
<b>Date and meeting when issue was last considered and relevant minute number</b>		Executive 15/09/2003
<b>Background Papers</b>		
<b>Contrary to the policy framework:</b>		No
<b>Contrary to the budgetary framework:</b>		No
<b>Key Decision?</b>		Yes
<b>Included within the Forward Plan? (If yes include reference number)</b>		Yes
<b>Equality Impact Assessment Undertaken</b>		Yes
<b>Officer/Councillor Approval</b>		
	<b>Date</b>	<b>Name</b>
Chief Executive	03/07/18	Chris Elliott
Head of Service	14/06/18	Marianne Rolfe
CMT	03/07/18	Chris Elliott, Andrew Jones, Bill Hunt
Section 151 Officer	03/07/18	Mike Snow
Monitoring Officer	22/06/18	Andrew Jones
Portfolio Holder(s)	4/7/18	Cllr Andrew Thompson
<b>Consultation &amp; Community Engagement</b>		
<b>Final Decision?</b>		
		Yes

**Suggested next steps (if not final decision please set out below)**

**1. Summary**

- 1.1 This report set out the business case for the digital upgrade of the software and hardware used to deliver the Closed-circuit television (CCTV) service and for the steps required for the relocation of the service to the new Headquarters.

**2. Recommendations**

- 2.1 That Executive notes the service currently provided by the Council's CCTV operation.
- 2.2 That Executive notes the business case for upgrading the Council's CCTV software and hardware.
- 2.3 That Executive notes the relationship between a CCTV upgrade and relocation of the Council's headquarters.
- 2.4 That Executive agrees the proposal to upgrade the software and hardware technologies for the CCTV service including the introduction of mobile cameras, notes that current cost estimates of the upgrade are in the region of £800k to c£1m and agrees to receive a further report when there is more cost certainty to agree the release of the necessary funding.
- 2.5 That Executive notes the approach to procuring the software and hardware upgrades.
- 2.6 That Executive notes the opportunities for further commercial activity that can be explored following the system upgrade.

**3. Reasons for the Recommendations**

**3.1 Current Service Provision**

- 3.1.1 CCTV within the district developed in accordance with the national picture in the 1990's to protect vehicles in car parks in the town centres. In 2001, the scheme expanded to include a CCTV Suite at the Town Hall and cameras in Lillington & Whitnash. The Control room was refurbished in February 2013.
- 3.1.2 The role of CCTV service provides:
- Reassurance – residents, visitors, businesses and their staff feel safer
  - Monitoring and directing support to the vulnerable including mental ill-health and missing persons
  - Monitoring of prolific and dangerous offenders
  - A central point to coordinate and prioritise the response of a wide range of services enabling prompt and effective early intervention response
  - Public protection evidence to court standard e.g. Police, Licensing and members of the public

3.1.3 The service provides a proactive 24 hour monitoring of 190 cameras 365 days a year. It also provides the following services on behalf of the Council:

- Manning the Emergency Duty phone as a Category 1 responder as part of our statutory duties under the Civil Contingencies Act (2004).
- Two Operations Rooms for Joint Emergency Response Inter-Operability.
- An operational base to coordinate multi- agency responses for high profile events where there may be public safety concerns including where the risk of terrorism is increased e.g. (Ovo Cycle Tour, Olympic Flame Relay, Queens visit to Justice Centre and Home-coming Parades)
- Security for corporate buildings and panic alarms including Riverside House internal (interview rooms) and external cameras, Royal Pump Rooms – Museum, Art Gallery & Library and Housing cameras – e.g. The Crest
- Income protection at our Car Parks
- Monitor regular events in the District e.g. Peace Festival, Food Festival, Folk Festival, Mop, Horse Fair & Christmas Light switch on events
- Monitor extreme weather conditions out of office hours (i.e. flooding)
- A base & assistance for the Street / Taxi Marshalls, Street Pastors and Night Noise Team.
- 24-7 monitor a WRCI Retail Radio
- 24-7 monitor a Pubwatch Retail Radio
- 24-7 monitor a Police Radio
- 24-7 monitor a Car Park / Park Ranger Radio
- Monitor Events Radio
- In addition to the Duty phone monitoring 2 phones lines, 1 a dedicated Police 24-7
- Respond to requests for assistance from 12 help points
- Key-holders for Royal Pump Rooms out of hours emergencies
- Key holders for CCTV camera column cabinet access
- Monitor Regent Court cameras generating £8,000 income

3.1.4 The WDC CCTV service has seen the following successes during its term of operation:

- Four operators have received awards from the Chief Superintendent of Warwickshire Police for outstanding proactive work including the saving of lives in the last 3 years.
- The Service was the first service in the country to achieve British Standard 7958 Closed Circuit Television (CCTV) Management and Operation in 2005. This standard has been held ever since and has been cited as having two examples of national best practice.
- The service has been assessed as compliant in every regard against the standard with `no opportunities to improve' on 5 occasions in the last 7 years.
- The service is regularly audited to maintain compliance with the Councils Code of Practice 2017 and with the law including the new General Data Protection Regulations and the Data Protection Act 2018.
- The service's role has been cited as a key part in the achievement of National Best Violence Reduction Award 2010, the country's first off-campus Street Marshal Scheme and the Purple Flag 2016 & 2017 accreditations for Leamington Town Centre.

3.1.5 The CCTV Suite comprises a Control Room, Server Room, 2 Emergency Operations Rooms, Office, Kitchen and toilets. The CCTV Control room was

refurbished in 2013 to the British Standard for Control Room Builds (BS 11064). The CCTV suite is DDA compliant for disabled users of furniture and buildings.

- 3.1.6 CCTV Control room has 2 work stations and a separate review station for the Police. The Control Room is a restricted area and there is no access to anyone other than authorised personnel. Warwickshire Police can view footage between 1000 and 1900hrs and 2200 and 0200hrs (unless urgent access is required whereby alternative arrangements are made). The Police are governed by the same regulations as Warwick District Council CCTV Operators, as well as by the Police and Criminal Evidence Act.
- 3.1.7 Signs stating that CCTV cameras are in operation are displayed on the main access routes in to the district in accordance with the Data Protection Act. In addition privacy zones are digitally fitted to prevent cameras seeing into private property, as required by the Human Rights Act.
- 3.1.8 The quality of CCTV images are very important in relation to identifying individuals saving the public purse considerable time and money as they are often pivotal in securing guilty pleas. The live playback facility is a tremendous tool assisting Police in attendance at an incident in determining who should be detained and the ability to transfer live images to the police control room during an incident

## **3.2 Hardware and Software Upgrade**

- 3.2.1 Warwick District Council currently has 73 x Pan Tilt Zoom cameras, 33 x Dome cameras and 84 Static cameras. These are analogue cameras linked to a Synectics video management recording system via primary storage nodes.
- 3.2.2 Shortly after installation of the Synectics Software in 2013, the company advised that they would be moving to a digital platform in the future. They have advised that the current system will be supported only until 2020.
- 3.2.3 As technology has developed rapidly since 2013, the system's core technology has aged. From a maintenance perspective the systems software and hardware is becoming harder to maintain in terms of support and availability of spare parts. Under the Council's contract for maintenance, should the software fail then the incumbent contractor must repair or replace it but this is becoming increasingly problematic due to patching issues or hardware incapability. ADT has been the Council's supplier since 2001 supported by a BT line contract.
- 3.2.4 The Pan-Tilt-Zoom (PTZ) cameras are based on many individual components and are much older technology than the recording system. Many of the camera components are out of production and stock parts are extremely limited. The PTZ cameras are being phased out in favour of dome cameras. The PTZ cameras only work with two software systems neither of which are effectively supported anymore.
- 3.2.5 ADT provides a maintenance service based on two inspections per year and supported by the in house daily patrols of every camera. Their performance standard is repair/replacement within 4 hours for any camera or control room fault. All equipment is covered by the maintenance agreement with the exception of furniture and fixings. All other equipment is covered by

repair or replace with the exception of equipment affected by storm, damage, vandalism or alterations.

- 3.2.6 The Primary Storage Nodes (PSN) at satellite sites (car parks) are old. Two have failed recently. One has been able to be repaired but the other needs to be replaced.
- 3.2.7 The combined impact of the matters above means that service failure is now a critical risk. In summary the issues are:
- Unsupported video management recording software from 2020;
  - Cameras out of production and limited available parts;
  - Cameras only communicate with two video management software types;
  - Failure of one of the primary storage nodes.
- 3.2.8 ADT (through its consultancy arm Tyco) has worked with the CCTV team to assess the Council's needs; evaluated the available market software and hardware; and mapped and tested the ability to move the signal around the district. Their comprehensive report is enclosed as **Appendix B**. The report identifies the need to address the aging technology risks and ensure that the service is fit for future operation.
- 3.2.9 The Tyco report proposes that the software is replaced with one of two options. Officers consider that of the systems suggested, Genetic is the preferred option having viewed both systems in operation at other CCTV control centres. The report highlights some optional modules ('Neo face watch' and 'Brief Cam Insights') however officers do not believe that these are required. Members should note that whilst Genetic is currently the preferred solution, a mini-competition will be required (see later).
- 3.2.10 It is suggested that the cameras are replaced with updated dome cameras whose picture quality is of a higher standard. PTZ cameras tie the service to British Telecom as they require hard-wiring. This also limits the ability to expand the service as around £20,000 of every £30,000 required for a new camera is hard-wiring (BT) costs.
- 3.2.11 Dome Cameras are more flexible as units and cheaper to install than the existing cameras. As a result service can be more reactive to changing needs of the district allowing the installation or removal of cameras where identified as necessary under the Surveillance Camera Code of Practice 2013.
- 3.2.12 The upgrade of the cameras and software will allow the service to move to a WIFI based system rather than a hard-wired system. This almost completely removes the services reliance on BT and would save the council £51,000 per year.
- 3.2.13 With the Wi-Fi network in place, the service will require approximately 12 less servers which would reduce the space requirement for the service.
- 3.2.14 ADT has worked with the CCTV service to demonstrate that the Council can update the hardware and software used by the system over a phased programme to almost eliminate the need for any operational downtime during this process. The phased programme is mapped out on page 13 of Appendix B. Phase 1 is the digital platform which must be in place before the Wi-Fi network (Phase 2) is constructed. Only then can Phase 3

commence with replacement of individual cameras to secure the best signal and quality images on the new network. The new CCTV Control Room and servers will be in the new headquarters ready for the day when access to the Town Hall ends.

- 3.2.16 It is estimated that upgrading the hardware and software would result in an 88% reduction in the energy used, a drop from 644kwh to an estimated 78kwh.

### **3.3 Relationship of upgrade to the move to the new HQ**

- 3.3.1 At the inception of the Council's relocation project, it was suggested that the CCTV service relocates to the new Headquarters when built. It was originally estimated that this would cost £250,000 to move the existing (hardware and software) operation into that new property.
- 3.3.2 As the plans have developed for the new Headquarters, the space which has been allocated to the CCTV service is 14% of the current footprint. It is recognised the two dedicated emergency situation rooms will be comparable with the new council chamber and meetings rooms which will be commandeered in times of emergency. However, the exiting servers, and control room would be unable to fit into the allocated space.
- 3.3.3 There is a risk associated with decommissioning and relocating ageing equipment. The risks associated with the existing system in 3.2 would be exacerbated by its relocation. In addition, this process would introduce a significant non-operational period as it could not be undertaken in a phased approach.
- 3.3.4 The core of the system's architecture relies on BT fibre lines and therefore the existing location within the Town Hall is a significant location with regard to the design and operation of the CCTV system. The current function of the CCTV system relies entirely on the current physical location to operate.
- 3.3.5 In order to relocate the existing CCTV service to the new Headquarters, the 60 fibre optic cables which terminate in the equipment room of the Town Hall's CCTV suite would need to be rerouted to the new location. This would require the services of both BT and ground work contractors in order to achieve a relocated service.
- 3.3.6 Two estimates for this work have been received with the highest being £1100 per metre (Appendix C). The works would create significant disruption to the Town Centre, the highway and service downtime which would not be compatible with the existing timelines for relocation to the new Headquarters.
- 3.3.7 The server room for the existing service houses BT fibre-optic cabinets and 28 servers and is air conditioned. It has been proposed that these will be co-located with the existing ICT server system used by the council. This is not achievable in the space allocated.
- 3.3.8 In order to move the service to the new Headquarters, the service hardware must be transformed in order to reduce the space needed, minimise operational downtime and mitigate the risk of moving the existing equipment. Whilst it is possible to provide an upgraded service from the

Town Hall until the new headquarters is built, this makes no sense from a cost perspective and therefore it needs to be acknowledged that the Council will carry a service risk during this period.

### 3.4 Business case for mobile cameras

- 3.4.1 The current and emerging national security picture is prompting CCTV service providers to review the service they provide to ensure that it both complies with the relevant legislation, codes of practice and assists to deter/identify at an early stage threats.
- 3.4.2 In 2022, the Commonwealth Bowls will be coming to Victoria Park in Royal Leamington Spa. It is estimated that this will see visitors arrive in a number which is greater than that of the existing town's population over the period of the event. The location is not well served by CCTV.
- 3.4.3 The Council has outlined its vision of increasing the number of events held throughout the district. The majority of the events are not held on land which is well served by CCTV cameras. It would be beneficial to have the ability to install cameras on a temporary basis in order to assist event organisers and to monitor for issues of a relevant nature.
- 3.4.5 With the current system officers are unable to move the PTZ cameras with ease. By including deployable mobile cameras within the CCTV service it would be possible to respond to the growth in events and other temporary activities within the district.

### 3.5 Cost of the upgrade: Technology and Project Management

- 3.5.1 It has been proposed that the digital upgrade takes place following a phased approach. This is outlined in appendix B (pgs. 35-40). In summary:

		<b>Estimated Costs</b>
Phase 1	Upgrade Video Management system	Option 1 - £150,749 Option 2 - £154,806
Phase 2	Wi-Fi Backbone Deployment	£146,649
Phase 3	Street Level upgrades	Option 1 - £412,667 Option 2 - £432,726
Phase 4	Installation of new control room in new headquarters	£61,664
Phase 5	Installation of CCTV throughout new headquarters (outside of CCTV upgrade or relocation need)	£92,425
Phase 6	Relocation of hardware from existing control room	£14,555
Phase 7	Decommissioning of existing control room	TBC

	Project management costs	£16,000
	<b>Estimated Total</b>	<b>£918,825 (Option 2 total)</b>

- 3.5.2 There is £250,000 allocated within the Headquarters relocation budget for the service. Further funding would be required to deliver the recommended upgrade and officers will identify how this can be achieved when cost certainty is secured.
- 3.5.3 Appendix B outlines two different Video Management Systems (VMS) which the council could choose to operate. Officers have identified Genetic as the preferred VMS (option 2) which brings maximum flexibility and addressing a major risk of over-reliance on a single supplier. Genetic only make VMS and therefore does not tie the service to particular hardware options.
- 3.5.4 There will be project management implications associated with the project to oversee the upgrade of the service provision. It is considered that the project can be managed without the need for additional resource. It is important however, to release capacity within the CCTV service to allow this to occur. It is proposed that would require the reallocation of workload and therefore potentially subject to Hay and Employment Committee outcomes require an additional spend of £16,000. This would be a recurring cost as outlined in 3.7
- 3.5.5 At the end of phase 2 annual revenue savings of £78,824 would be achieved. This would be made from savings on BT line rental would be £51,309 (Appendix B page 26) and the reduction in ADT maintenance contract would be £26,975 (Appendix B page 40). These are also outlined in appendix C.

### **3.6 Procurement approach to the upgrade**

- 3.6.1 To ensure that the upgrade is sufficient to meet our needs and provides best value, we will be utilising the ESPO 68 framework for Security and Surveillance Equipment & Services via mini competition.
- 3.6.2 The specification which has been laid out within the Tyco report will be used to form the basis of the mini competition specification to demonstrate best value from the market for the solution which has been identified as best serving the Council's needs.
- 3.6.3 It is recognised that ADT has assisted the Council in determining the equipment needs of the service. However, this has been necessary to truly understand the suitable options available to the Council. This service has been provided to the Council as part of the existing contract.

### **3.7 Explanation of how upgrade may open-up future commercial opportunities**

- 3.7.1 The current service provision does not allow for a flexible service which can grow or shrink easily with the demands upon the district. Upgrading the software and hardware not only allows the system to be responsive to the district's needs and the changing security challenges but affords the service the opportunity to seek contracts with other organisations in need of CCTV or CCTV services.



3.7.2 It may be possible for the CCTV service to operate the security contract for the new Headquarters building which could save a further approximate £11,000 per year. In addition there are plans for various CCTV systems within new council 'Housing' initiatives which could also be run by the CCTV service. Further work will be done on these initiatives in time for the proposed follow-up report.

3.7.3 With the opportunity to operate in a commercial environment, capacity would need to be released from within the existing structure. The released resource for project management of the upgrade could be refocused on completion of that project to take advantage of enterprise opportunities.

#### 4. Policy Framework

##### 4.1 Fit for the Future (FFF)

4.1.1 The Council's FFF Strategy is designed to deliver the Vision for the District of making it a Great Place to Live, Work and Visit.

4.1.2 Under the FFF Services Strand the Council aims for the district to have low levels of crime and anti-social behaviour. The level of crime and disorder is cited as the top consideration when deciding on where to live.

<b>FFF Strands</b>		
<b>People</b>	<b>Services</b>	<b>Money</b>
External		
<b>Health, Homes, Communities</b>	<b>Green, Clean, Safe</b>	<b>Infrastructure, Enterprise, Employment</b>
<u>Intended outcomes:</u> Improved health for all Housing needs for all met Impressive cultural and sports activities Cohesive and active communities	<u>Intended outcomes:</u> Area has well looked after public spaces All communities have access to decent open space Improved air quality Low levels of crime and ASB	<u>Intended outcomes:</u> Dynamic and diverse local economy Vibrant town centres Improved performance/productivity of local economy Increased employment and income levels
<b>Impacts of Proposal</b>		
CCTV provides reassurance to our communities, businesses and visitors. Supports the safe running of events and cultural activities.	Incidents of crime and anti-social behaviour will reduce. Vulnerable people are located and monitored until support arrives. Lives are saved. Perpetrators are identified. 88% reduction in energy use. Evidence assists in securing convictions and savings to the public purse when guilty pleas	Continuing to deliver a service that helps make the town centre feel safe contributes to the local economy and in particular to the vibrancy of our town centres.

	are secured.	
<b>Internal</b>		
<b>Effective Staff</b>	<b>Maintain or Improve Services</b>	<b>Firm Financial Footing over the Longer Term</b>
<u>Intended outcomes:</u> All staff are properly trained All staff have the appropriate tools All staff are engaged, empowered and supported The right people are in the right job with the right skills and right behaviours	<u>Intended outcomes:</u> Focusing on our customers' needs Continuously improve our processes Increase the digital provision of services	<u>Intended outcomes:</u> Better return/use of our assets Full Cost accounting Continued cost management Maximise income earning opportunities Seek best value for money
	The digital upgrade future proofs the system and removes the risk of service failure currently a risk due to aging equipment. The proposed system gives greater flexibility, removes dependency on a single supplier The new system will require fewer cameras whilst providing a greater service.	The upgrade will allow the current running costs to be reduced enabling a return on investment over the identified life of the product (c15 years).

## 4.2 Supporting Strategies

4.2.1 Each strand of the FFF Strategy has several supporting strategies and the relevant ones for this proposal are explained below.

4.2.2 Warwick District Council is a responsible authority under the Crime & Disorder Act 1998 and has a statutory duty to reduce crime, disorder and substance misuse.

4.2.3 The statutory duty on this authority as set out in s17 of the Crime & Disorder Act 1998 is to consider the implications on crime and disorder in the design and delivery of all its services.

## 5. **Budgetary Framework**

5.1 The current cost of the CCTV service in 2018/19 is £529,200. This is was an increase of £50,000 on the 2017/18 budget (£479,200). The main increases are £28,800 in accommodation costs and £15,500 for staffing costs.

5.2 The main CCTV costs are as follows:

Staffing	£215,600
Maintenance	£135,600
Support Costs	
Accommodation	£126,300
Recharges and Income	£22,687

**Total £308,900**

5.3 The total cost of the proposed upgrade, and phasing is shown below:-

		<b>2018/19</b>	<b>2019/20</b>	<b>2020/21</b>	<b>2021/22</b>	<b>Total</b>
		<b>£</b>	<b>£</b>	<b>£</b>	<b>£</b>	<b>£</b>
Phase 1	Upgrade Video Management system Option 1	154,806				154,806
Phase 2	Wi-Fi Backbone Deployment		146,649			146,649
Phase 3	Street Level upgrades Option 1			432,726		432,726
Phase 4	Installation of new control room in new headquarters				61,664	61,664
Phase 5	Installation of CCTV cameras in new headquarters				92,425	92,425
Phase 6	Relocation of hardware from existing control room				14,555	14,555
Phase 7	Decommissioning of existing control room				TBC	TBC
	Project management costs	16,000	16,000	16,000	16,000	16,000
	<b>Total</b>	<b>170,806</b>	<b>162,649</b>	<b>448,726</b>	<b>184,644</b>	<b>918,825</b>

5.x It is proposed that the £250,000 as outlined in the original relocation estimates for the new Headquarters is used to pay for part of the upgrade of the software and hardware. A further report will provide full details of the upgrade cost and how this can be financed in total.

- 5.4 The upgrade project will be managed within the current resources and an on-going commercial opportunities focus would require a refocusing of a number of roles within the CCTV service. Subject to Hay and Employment Committee reports this is estimated at an increased cost to the staffing budget of £16,000.
- 5.5 Once an upgrade is completed, as outlined in 3.5.6 there would be an annual savings made in the maintenance costs of £78,824. Potentially an additional £11,000 savings could be made from the CCTV service undertaking the building security services. The follow-up report will identify when these savings are likely to be realised.

## **6. Risks**

- 6.1 Appendix B sets out the key risks faced by the service (pages 9-12) and is summarised in Appendix C.
- 6.2 The age of the analogue equipment and software is a critical risk. However, this can be addressed by the digital transformation which also removes the reliance on individual suppliers.
- 6.3 The move to the new Headquarters will enable the addressing of a major risk which is contained within the service risk register. This is in relation to the provision of a back-up power supply which to date we have been unable to mitigate.
- 6.4 The proposed phased programme for the digital transformation almost eliminates downtime when the connections are moved from the Town Hall to the new Headquarters. The transformation to digital cannot be delivered in a single phase as the required downtime would be significant.

## **7. Alternative Option(s) considered**

- 7.1 Consideration has been given to the different options of upgrading the software and hardware of the CCTV service or not and relocation from the town hall or not. Appendix C compares the costs, risk and benefits of moving to the new headquarters or not and have been compared and contrasted in Appendix C.