

SentrySIS by Durham Constabulary

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SUMMARY (396 words)

Retired Police Chief Mike Barton once said of technology that “it is the greatest enabler” – this is certainly true in 21st Century Policing. After nearly a decade of austerity and a general increase in demand on policing service, Policing UK PLC must adapt to work smarter not harder in order to manage demand to ensure that it remains a viable public service moving forward. Durham Constabulary has capitalised on the improvement in connectivity and digital technology to modernise our working practices and to increase the speed of investigations to achieve this aim.

Durham Constabulary utilises a centralised local authority CCTV centre, this posed logistical problems for officers progressing investigations, as at it’s extreme, officers would either have to drive up to 20 miles to collect a CCTV disc and complete the bureaucratic data protection form or wait up to 2 weeks for the disc to arrive at their police station. Further to this, victim and witness statements were taken in paper format face to face as a matter of course – this again provided logistical problems in obtaining evidence from victims and witnesses in a global world where long distance travel is as easy as catching a bus and people move around with far greater ease.

Analysis of these officer outputs showed that fuel was being burned unnecessarily, travelling time was essentially “dead time” in which officers couldn’t do anything productive and their investigations were hindered by the delay in obtaining key evidence because of outdated practices. These working practices were perpetuated because of the notion of “we’ve always done it that way”. Simply put these practices continued “out of habit”.

As a solution, Durham Constabulary worked with an innovative IT start-up based in Leeds UK called SentrySIS. In partnership, we developed a bespoke, secure, online cloud based platform designed specifically for police officers which has allowed us to obtain local authority CCTV online and digital witness statements, still images and private CCTV/mobile phone footage from anyone anywhere in the world provided they have a touch screen smart phone and internet connectivity.

As a result of embracing this modern method of working, we have achieved our objective of increasing our efficiency, decreased investigation time, reducing fuel costs, reducing demand on officer time and modernised how we engage with the public in this ever-evolving digital world. The opportunity savings over the past 18 months, reaching hundreds of thousands of pounds and front-line time saved reaching 1000s of hours.

DESCRIPTION (2840)

SCANNING (638 words)

In the past decade, there has been a requirement for police forces in England and Wales to become more effective and efficient, and in need of swifter investigations, in order to reduce police officer and time and costs. In 2010 the UK Coalition Government began a policy of public sector spending cuts. This policy of austerity was seen as a necessary act to reign in public spending after a global financial crisis and “out of control” spending by the previous Labour Government. The then Association of Chief Police Officers at that time agreed that UK Policing should “shoulder their fair share of the cuts”. The Home Secretary Theresa May outlined that the Police needed urgent reform, the Police being the last great unreformed public service and were in dire need of reform in order to become more effective and efficient. In the face of criticism regarding the loss of 35000 police officers and staff nationally, a reduction of 14% (*College of Policing, 2015*). May went as far to suggest that it wasn’t the number of police officers that matter, it’s how you deploy them. At a local level, within Durham Constabulary these spending cuts resulted in a reduction of Police Officer numbers from a high of 1736 in 2010, to around 1150 in 2019 (33% reduction). Simultaneous to this, reductions in public sector spending in other areas such as welfare and mental health provisions had an almost immediate impact on incoming policing demand. Estimates vary but at one point mental health accounted for more demand on police resources than traditional policing issues such as crime and anti-social behaviour; the College of Policing estimating that demand may be as high as 20% nationally in 2015, up from 2% in 2011 (*College of Policing, 2015*). The same report outlined that demand had increased not only in respect of mental health, vulnerability and safeguarding (non crime incidents accounted for 84% of all calls to police), but also in respect of new crime types emerging and increasing in volume such as cybercrime, child sexual exploitation and modern slavery all of which can be time consuming to investigate.

As ‘thin blue line’ became ever stretched and the boundaries between police and other statutory agencies’ remits became ever more blurred, a new rhetoric began to emerge. The newly formed College of Policing began to drive little heard of before concepts such as “evidence based policing” and “evidence based best practice”. Senior officers began to talk about “efficiency savings” and a “leaner, more effective service”. Against the backdrop of this discourse, Durham Constabulary recognised that the policing landscape had changed drastically in less than a decade and we had to adapt to meet the challenges of public sector spending cuts as well as changing and increasing demand in order to remain viable. Necessity is the mother of invention, and as such we embraced a business like entrepreneurial attitude to reduce waste, making our practices fit for purpose and ensuring that we were as efficient as possible and our investigations progressed expeditiously. There was no place for doing things out of habit. In a nutshell, Chief Constable Mike Barton summed it up well when he described that the cuts had some positives as they had “shocked us out of habits”¹.

The cuts had galvanised innovation.

In Durham we identified that against the backdrop of increasing non-traditional demand, if we reduced demand in respect of our working practices, we could re-invest that time saved into priority areas of threat and risk. 2 hindrance stressors for our staff were the challenges around obtaining local authority CCTV and obtaining victim and witness statements in a timely manner. The accepted practices around doing so were often laborious and time consuming. We also identified that we needed to become far more effective at speeding up the amount of time it takes to investigate crimes.

¹ <https://www.chroniclive.co.uk/news/north-east-news/it-shocked-out-habits-durham-13769399>

ANALYSIS (544 words)

In order to determine the cost of having a centralised CCTV centre that officers had to physically travel to in order to get a CCTV disc, the following units of costs were considered:-

- The cost per mile for fuel is 25p (Durham Constabulary fleet department figures)
- The cost of an average Police Constable per hour with on costs is £25.

Secondly, we had to determine the travelling distance and travelling time from each station serviced by the centralised CCTV centre. This data was obtained by using the AA Route Planner website². This gave us the following costs per return trip from each of the following stations in table 1. Please note that travelling distance is not a good indicator of travelling time due to differing road types. When an officer arrives at the CCTV depot it takes on average about 10 minutes to get into the building, walk to the CCTV room, fill in the admin, collect the disc before setting off on the return journey.

Station	Travelling Distance (miles)	Travelling Time (minutes)	Fuel Costs (£s)	Officer Costs (£s)	Admin Costs (£s)	Total Costs Per Trip (£s)
Consett	43.2	76	10.8	31.67	4.16	46.63
Stanley	44.8	64	11.2	26.67	4.16	42.03
Chester le Street	35	46	8.75	19.17	4.16	32.08
Durham City	17.6	34	4.40	14.17	4.16	22.73
Peterlee	35.5	56	8.88	23.33	4.16	36.37
Seaham	46.2	66	11.55	27.50	4.16	43.21
Newton Aycliffe	8.2	14	2.05	5.83	4.16	12.04
Spennymoor	7.8	16	1.95	6.67	4.16	12.78
Bishop Auckland	7.8	16	1.95	6.67	4.16	12.78
Barnard Castle	39.2	62	9.80	25.83	4.16	39.79
Crook	23	40	5.75	16.67	4.16	26.58

In respect of taking victim and witness statements, it is more difficult to determine the costs of an average statement due to the varying nature of where the statements are taken in respect of the officer's base station. In respect of the time taken to complete an average statement, we surveyed 300 front line officers and asked them how long it takes them on average to complete a witness statement. It was highlighted that this number was only for the completion of the witness statement and did not include travelling time. The average time taken across all respondents was 62 minutes. This meant that the officer costs were £25.83 per witness statement in total.

It was clear to see from analysing this data that there was considerable scope to become more efficient in certain areas, particularly around travelling time and fuel costs, as well as improving the celerity of

² <http://www.theaa.com/route-planner/index.jsp#fromNode=0%7C18%20Dawson%20St,%20Crook%20DL15%208NH,%20UK%7C%7C-1.745015%7C54.713184%7CtoNode=0%7CChilton,%20Ferryhill%20DL17,%20UK%7C%7C-1.556089%7C54.664062>

our investigations. This practice of having to physically attend the CCTV centre and all victim/witness statements meant that a considerable amount of officer time was unproductive, other policing incidents weren't being serviced and fuel was being used unnecessarily which, given the current concerns around climate change, meant that we hadn't reduced our carbon footprint in this regard. In respect of victim and witness statements for those living out of the force area, the general accepted practice was for an officer to email an internal inbox (HQ-OPS-Message Switch) outlining our incident number, who the victim or witness was, their contact details, the nature of what they have witnessed and request the force area where they were located to take a statement from them. Our force control room would then forward that email on to the relevant police force who would create an incident and allocate an officer to take the statement when one became available. The issue with this is that generally a police force will prioritise their own demands first and statement requests unless otherwise stated as urgent will take some time to service. We do not have any data for this but anecdotally it could take over a week to get the statement scanned through via email and even longer for the hard copy to be sent in post. These practices were born out of habit, due to the absence of a viable digital alternative.

RESPONSE (1114 words)

The goals of this project were simple and were as follows:

- Can we find a digital solution that allows us to transfer local authority CCTV securely and remotely via the internet without the need for officers to travel?
- Can we utilise the same digital solution to be able to take digital victim and witness statements from anyone anywhere in the world?
- Can we reduce the amount of unproductive travelling time our officers experience when doing these tasks?
- Can we reduce our fuel costs?
- Can we speed up our investigations?

By our analysis of the problem, it became clear that the only real and effective way to tackle the problem was via a digital solution. Other alternatives in respect of the CCTV issue weren't viable such as weekly runs to collect CCTV in batches as this delayed the investigative process due to waiting for CCTV. In respect of witness statements, the only other alternative would be to invite the person giving the statement to travel to the police station – thereby transferring the demand in terms of travelling time onto them. This really wasn't viable as it isn't putting victims and witnesses at the heart of the process.

Following our analysis and exploration of the alternatives T/Insp Adam Norris and D/Supt Kevin Weir began to work with SentrySIS, an IT start-up based in Leeds, UK. T/Insp Adam Norris was the operational project manager and D/Supt Kevin Weir the strategic project manager. Due to the reduction in staff numbers, there were no full time staff allocated to this project and both T/Insp Norris and D/Supt Weir implemented it in addition to their day jobs.

SentrySIS, T/Insp Norris and D/Supt Weir held a series of meetings with Durham County Council in respect of the CCTV practices. Legal, technical and IT issues were addressed and as a result of those discussions it was agreed that SentrySIS would build a secure online cloud based platform in which Durham Constabulary would request CCTV from Durham County Council. Durham County Council would then use the same platform to upload that CCTV to the secure server, the platform would auto-convert the CCTV into a DVD playable format (negating the need for an officer to do this – this has not been taken into account in the cost savings). Once this had been done, the requesting officer would receive an email alert informing them that the CCTV was ready to download.

In respect of the statements, SentrySIS were provided with an MG11 witness statement template (a formal written document used by police forces in England for witnesses to write their statements on), they were tasked to build into the platform an option of a "remote digital witness statement" which when completed would be sent electronically to the recipient's email address. Once the person had accessed the email they would be provided with a unique pin code over the telephone by the officer which enabled them to access the statement. The person giving the statement would either accept the statement as being correct in which case they would provide a digital signature using either a mouse on a desktop computer/laptop or their finger if reading it on a touch screen smart phone. Once the statement had been signed it could not be changed. If the person giving the statement wanted changes to be made, we requested an option where they could send it back for amendments. As a sub problem, we had issues whereby some of our staff failed to fill in all sections of the MG11 front and rear (which could cause a prosecution file to fail) – we asked for an IT fix in which all sections had to be filled in before the statement could be sent. In addition to this, if the statement was a victim based crime, we also asked for an IT fix in which the officer taking the statement had to take a victim's

personal statement (This is a statement made by the victim of a criminal offence recorded on form MG11 and the content relates to the effect the offence has on them) before they could send the statement to the member of the public. This was due to concerns from the Criminal Justice Department regarding a lack of victim personal statements on some statements. Lastly, in respect of victim care, we asked that once the statement had been signed, victims would be sent an electronic victim of crime booklet with the officer's details, incident number and crime number as well as an electronic leaflet detailing about what happens when you give a statement to the police and a leaflet regarding the victim's personal statement. Witnesses would be sent the electronic leaflet regarding giving a statement to the Police.

Whilst implementing the project it was imperative that we ensured that the IT platform was compliant with the General Data Protection Regulation (GDPR) and other cyber security legislation. To address these issues, we provided SentrySIS with Durham Constabulary's IP addresses meaning you could only access the platform from a Durham Constabulary computer, any non-Durham Constabulary IP addresses would be blocked. Once a member of staff had accessed the system we utilised 2 step authentication in that they would provide their username (Police email address) and password, then be required to fill in an online "capture". Once this was correctly completed, a unique pin code would be sent to their police email address which they inputted to access the system. SentrySIS provided proof that they had attained their ISO27001 accreditation and worked with our data security manager to ensure that they had specific IT safeguards such as firewalls in place to prevent hacking.

In implementing the programme, we identified that in order to get buy in from front line staff who were by their very nature often sceptical of change, particularly around IT – we would have to win hearts and minds. As a result, we implemented an internal media campaign highlighting the benefits for them i.e. a reduction in demand on their time, faster investigations.

In order to implement this, we identified a number of "super users" who would train everyone on their respective teams. This generally went well, however there were several who having had the super user training did not disseminate this training despite repeated requests. To resolve this, the issue was escalated to D/Supt Weir who addressed this with the respective Senior Management Teams (SMT). Another issue identified was that although we got traction in respect of most frontline staff getting a login, many never bothered to log on, this was raised in both the Locality and Force Performance Threat and Risk meetings around the force which are chaired by SMT members and Chief Officers respectively. This had the desired effect in ensuring persons logged on.

ASSESSMENT (573 words)

The digital CCTV transfer and remote statement taker went live on 1st November 2017. The system provides live up to date performance data. For example, in respect of the CCTV transfer, the system knows which station the officer requesting the CCTV is based at, and from that it works out the travelling time and fuel costs. The system works out the fuel savings at 25p/mile and the amount of hours saved by working out the travelling time. It works out the opportunity savings by taking the travelling time and multiplying that by £25 per hour (Police Officer with on costs).

The remote statement taker works out the fuel, travelling time and opportunity savings in the same way as the CCTV transfer. However, to work out the travelling time saved the system makes an assumption that the officer will travel from the police station where they are based to the home address of the person giving the statement. It is noted that as part of the assessment, some of those statements due to distance would be taken by another Police Force, however, it is felt that including these statements in the cost savings is balanced out by the delays that obtaining those statements from those Police Forces previously took. The remote statement taker uses the 62 minute average statement to work out time saved also. For example, if an officer took 52 minutes to take a remote statement, it would add 10 minutes at £25 per hour to the cost savings. If the officer took 72 minutes to take the statement it would take 10 minutes at £25 per hour from the cost savings. Remote statements have been taken from persons in Australia and Singapore, however as the software requires a UK address – these vast distances are not included in the performance measures.

Overall from 31st November 2017 to 17th May 2019 the following cost savings were achieved:

CCTV transfer:

- 2542 CCTV requests made.
- 1522 hours saved.
- Opportunity savings of £38,044 in respect of officer time.
- 52017 miles saved.
- £13,000 in fuel saved.
- Total cost savings of £51,049 (fuel, officer time)

Remote Statement Taker:

- 3095 remote statements taken.
- 3278 hours of travelling time saved.
- 1778 hours of statement taking time saved.
- 5056 hours in total saved.
- 150353 miles saved.
- Opportunity savings of £81,959 in respect of travelling officer time.
- Opportunity savings of £44,446 in respect of statement taking time.
- Total opportunity savings of £163,994.
- Fuel savings of £37,588.
- 150353 miles saved.

In total:

- 6578 total hours saved.
- £50588 fuel saved.

- 202,370 miles saved.
- 4800 hours of travelling time saved.
- Total opportunity savings of £202,038.
- Total cost savings £252,626.

Overall, the objectives were achieved, by a simple IT fix we have significantly reduced demand on our front-line staff. This time freed up can then be reinvested into other policing issues. For example, T/Insp Norris has reinvested the time saved into tackling a local Organised Crime Group. Anecdotally, staff have commented that their workloads have reduced due to in part, being able to conclude investigations at a far quicker rate than previously. In order to make the response more effective, we could potentially have changed the way that we trained our staff, rather than super-users we could have delayed the implementation slightly in order to train every member of staff in the force, this would have allowed us to obtain “critical mass” at a far earlier stage and increased usage from the date of going live.

Bibliography

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