



NORTH YORKSHIRE POLICE AUTHORITY

PERFORMANCE & SCRUTINY BOARD

18 MAY 2012

REPORT OF THE CHIEF CONSTABLE

CHIEF CONSTABLE'S DELIVERY UNIT - BENEFITS REVIEW OF
HAND HELD MOBILE DATA

1. Report Purpose and Recommendations

- 1.1 To present the benefits review of the Mobile Data Project concentrating on the querying, input and actioning of information through Personal Digital Assistants (PDAs).
- 1.2 North Yorkshire Police Authority (NYPA) members are asked to note the benefits review of the Mobile Data Project.

2. Key Information

- 2.1 The Chief Constable's Delivery Unit (CCDU) were asked to evaluate the implementation of the Mobile Data Project to ascertain if implementation had occurred, if it had been successful and if there were any issues relating to the implementation.
- 2.2 The Mobile Data Benefits, which set out the anticipated outcome and results of the Project Team, was used to structure a questionnaire that was sent out to a random sample of high, medium and low level PDA users and to all of the Force Control Room (FCR) Deployment Managers.
- 2.3 The scope examined:
 - Potential increase of police officer visibility on patrol due to a reduced need to attend police stations to make computer related enquiries
 - Potential saving of FCR operators time through operational staff conducting their own searches of STORM, Niche and PNC
 - Potential increase in the number of identification of suspects and arrests due to the immediate access to information and photographs of suspects
 - Information and systems data obtained through the Corporate Performance Unit to measure PDA users statistics and arrest information
- 2.4 The following officers and staff groups were questioned in interviews and through the use of questionnaires within each of the SNCs and the FCR:
 - Safer Neighbourhood Beat Managers, Safer Neighbourhood Patrol Police Constables and Police Community Support Officers (PCSOs)

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- FCR Deployment Managers
- Information Systems Director, managers and staff

Although the sample size is small, the results are consistent and therefore likely to be an accurate representation of the workforce's opinion.

- 2.5 Information from the BCU Structure Review relating to the implementation and operational use of PDAs was also taken into consideration.

3. Proposals

- 3.1 Mobile access to incident information and self checking of persons and vehicles held on PNC was estimated to free up approximately 30 minutes of each FCR operator's time per shift. This is equivalent to a financial saving of £300,000 pa but could also be used to add value to the work already being done.
- 3.2 Mobile access to PNC, STORM and Niche has the potential to increase the visibility of each patrolling officer by up to 60 minutes per shift as a consequence of not having to attend a police station to access information, conduct the enquiries over the force intranet or submit reports.
- 3.3 Mobile access to information can also reduce an officers need to travel to and from a police station or spend time waiting to access computers at peak periods. An estimated saving of 15 minutes per officer per shift could be made.
- 3.4 Provide officers and staff with direct access to a number of operational functions including crime and intelligence, which they are also able to update using their PDA.
- 3.5 Mobile access to incident information, crime reports, intelligence reports and images of suspects provides PDA users with the facilities to conduct real time investigations and in so doing increase their personal knowledge and performance with regard to the identification and arrest of suspects and offenders.

4. Realisation

- 4.1 The Beat Systems Ltd (BSL) Encounters solution is the system used by NYP to deliver secure mobile computing via hand-held PDAs. At the commencement of the project the BSL solution was considered to be advanced, and as specialists in the provision of similar applications to other UK Police Forces, well placed to provide NYP with a solution to communicate sensitive computer data using secure mobile telephony.

BSL worked very well with NYP to overcome a number of difficulties not originally envisaged in the development stages with regard to network coverage across the county and the simultaneous retrieval of information from multiple systems at no additional cost to NYP.

- 4.2 On completion of the 'Go Live' stage of the Project in March 2010, 600 PDAs were assigned to operational police officers. The user statistics show a wide variation both in the volume of users and the type of enquiries conducted. In the sample period from September 2011 to January 2012 the totals for the Force were:-

	September 2011	October 2011	November 2011	December 2011	January 2012

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PDA's issued	569	575	570	452	441
Transactions	6612	6924	6266	5035	5461
Non Users	332 (58%)	351 (61%)	327 (57%)	242 (54%)	251 (57%)

On average ten of the highest volume users conducted between 126 and 240 transactions each, per month, across the 9 measurable enquiry types. 20 users conducted between 40 and 100 transactions each, per month, across the 9 measurable types. Non users are identified as those individuals who have not conducted any transaction with their PDA and are also shown as a percentage of the number on issue.

In December 2011, 260 PDAs were taken out of service during the month to be updated, reconfigured or identified as suitable for spares. A number of those taken out of service will be retained by ISD as spare parts for those in service as they are now considered to be obsolete. This action will enable the majority of those in service to be kept operational but the actual number to be decommissioned or held as a spare for repairs has not been determined.

There has also been some re-distribution of PDAs from non-users to individuals who had not been previously issued with one, including PCSOs.

- 4.3 The principal aim of the project was to maximise the visibility of Frontline Officers and PCSOs through the provision of a handheld communication device that gave them access to operational and administrative Police systems and data thereby reducing the time spent in police stations carrying out the same tasks.
- An accurate measurement of the time saved by each officer or a cumulative total of all time saved cannot be determined from police recording systems as they are not configured to perform that function. Consequently, the assessment of the realisation as a benefit is based upon the perception of the operational officers and staff who have completed the questionnaire.

Increase in visibility	25%	Decrease in visibility	12.5%	No Significant Change	62.5%
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- 4.4 The ability to access PNC to conduct enquiries in relation to persons and vehicles using PDAs may also provide an indication of operational efficiency. In the sample period from September 2011 to January 2012 the following volume of PNC checks were conducted by PDA compared to desk top enquiries.

	September 2011	October 2011	November 2011	December 2011	January 2012
Person PDA	569 (7%)	511 (7%)	489 (6%)	462 (5%)	408 (5%)
Desktop Person	40916	41378	41094	40912	43965
Vehicle PDA	1955 (1%)	2010 (1%)	1667 (1%)	1462 (1%)	14152 (1%)
Desktop Veh	28140	28805	28814	26682	29192

The number of checks using a PDA is shown as a percentage of those conducted by other means. It is clear from the figures that PDA enquiries represent a small percentage of the total conducted and both users and FCR staff have commented that officers frequently contact the FCR for confirmation of the information or more details to supplement the limited amount available on the PDA.

- 4.5 Any increase in the number of persons arrested, which is directly attributable to the use of a PDA, cannot be determined as evidence because there is no system in place to record this information against an arrest. However, if it can be assumed that any increase in arrests would be additional to normal activity, and notwithstanding the reduction of recorded crime during this period, the number of arrests for the period

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2010/2011 would remain stable to account for the decrease in crime or show an increase to reflect the improvement in performance. The arrest figures from the Corporate Performance Unit show an overall decrease with the exception of a small increase in December 2012, consequently the realisation of this benefit cannot be confirmed.

	September	October	November	December	January
2010/11	2468	2903	2514	2338	2441
2011/12	2428	2500	2333	2373	2163
Difference	- 40	- 403	- 181	+ 35	- 43

In the survey of PDA users, 17% believed there had been an increase in arrests through the use of the PDA, 53% believed there had not been any increase and 29% had not noticed any significant change. The survey outcome reflects the arrest figures in showing an overall reduction in arrests but it should be noted that the ability to view the image of a suspect/offender is acknowledged by all PDA users as a very useful feature and provides the potential to realise the intended benefit in the future.

- 4.6 The overall consensus of opinion of the PDA is that it is a very useful tool for police officers to have but the generation in use are obsolete, have difficulties logging on and maintaining signal strength, 'fiddly' to operate, are not capable of displaying all of the relevant information, do not emulate the templates for submitting information that are available on desktop computers and require single crewed officers to concentrate on the PDA rather than the person they are dealing with potentially putting officers at risk.

Officers and staff support the use of PDAs to access incident and intelligence information, but the limitation of information that can be displayed frequently necessitates them having to contact the FCR to clarify or expand the result of the enquiry before taking any action. There is strong support for the availability of images of suspects etc. from Niche and many of the users would like to be able to use the PDA to input information but have difficulties with the small size of the keys and non-compatibility with reporting templates.

There is strong criticism of the decision to disable the PDA's camera function, which many believe would have enhanced their ability to collect evidence at scenes of incidents and crimes. They do however accept there are issues concerning the use of photography and disclosure as evidence gathering tools and would seek to reach a compromise through the introduction of a Force Procedure to ensure the facility was available in any future hand held device.

Where an officer has received training authorising them access to a system i.e. PND, unless there is very good reason for not doing so, the officers should be allowed access to those systems via a PDA without having to undergo additional training, especially if that training is for a shorter duration than the original course attended.

- 4.7 In response to the need for management information in relation to the use of PDAs the Performance Unit published a report on their intranet site to show the usage statistics of every PDA. This cumulative information enabled managers and supervisors to monitor the use of PDAs by their staff on a daily basis.

Some senior managers encouraged inspectors and sergeants to proactively monitor the PDA usage statistics to encourage staff to use the facilities available and in so doing realise the benefits they offer. The use of the data for inspector's monthly performance reviews encouraged the use of the same data and corrective actions for sergeants and constable's regular performance reviews.

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The intervention by managers and supervisors in response to performance data can however be influenced by the user's personal experience of using the equipment and where confidence in the system is lost the performance data reflects this.

- 4.8 To identify issues with PDAs and share the knowledge and experience of users a discussion forum was set up on the Force intranet. This platform provides a safe and secure area for users to express their opinions and is a useful source of information for the future development of hand-held devices.
- 4.9 The Director of ISD fully supports the use of PDAs and envisages the advances in technology, hardware and software, will provide a financially viable solution to all of the problems identified by users of the existing system. The continuous improvement of functionality and accessibility of software and applications including Niche and PND, and the development of hardware and secure telephony provide clear indications of improved functionality, connectivity and coverage in the future.

However, in the short term, although the number of PDAs in use at around 260 will be considerably fewer than the original 600, there are sufficient spares available to keep those in use fully operational until the end of their service life and the current contract.

5. Compliance

5.1 Equality and Diversity Comments

- 5.1.1 This review has not identified any information or practice that would have negative equality or diversity implications in respect of people with protected characteristics for NYP under the Equality Act 2010 including the Public Service Equality Duty.

When considering replacing or upgrading the use of hand held devices NYP must be fully cognisant of the need for compliance with the legislation to eliminate discrimination, harassment, victimisation and any other conduct prohibited by or under the Act.

5.2 Financial Comments

- 5.2.1 The mobile data devices were provided for in previous financial years. The time benefits referred to within the proposals section of this report have not been separately identified for the purposes of achieving financial savings from within force budgets. The future requirement for replacement of existing or acquisition of new technology to support operational policing will be required to inform the Medium Term Financial Plan and associated Asset Management requirements set out in the Capital Development Programme.

6. Recommendations

- 6.1 Members are requested to note:-
- 6.1.1 The original implementation date of March 2010 was extended to February 2011, to enable a crime recording functionality, sponsored by the National Policing Improvements Agency, to be developed and implemented within the agreed timescale.
- 6.1.2 The success of the technology has been impacted upon by the functionality of the PDA hardware and complexity of accessing information held on different platforms i.e. STORM, Niche and PND. Future generations of hand-held communication devices

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must be, as far as is reasonably possible, technologically 'future proof' and the hardware capable of being updated as opposed to having to be an 'end of life' force-wide replacement.

- 6.1.3 The majority of officers and staff support the use of mobile data technology and believe it is capable of realising the Project's benefits, especially if the physical size and functionality can be improved upon and the software is developed to provide more relevant information, better emulation of screen displays and template integration. The use of the devices to record and transfer digital evidence would also be a welcome addition to the system functionality.
- 6.1.4 There is nothing in place to accurately record or evaluate the time saved through the use of PDAs either as increased visibility on the street or as time saved from waiting to access a computer. The provision of auditable information to reality check the realisation of benefits must be considered for future developments of PDAs.
- 6.1.5 The systems used by the Force to record information have not been configured to differentiate between an arrest resulting from the use of a PDA or any system or device, consequently there is no unequivocal evidence to confirm or refute the benefit of increasing the number of arrests through a PDA being realised. If this is to be a future performance measure the process for recording the information must be made available.

Report Information

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Director Steven Read

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7. Director's Comment

7.1 Chief Superintendent, Director of Corporate Communications

1. I welcome the report and findings and would concur both with the content and conclusions as to the use of mobile data with the current device.

2. Despite the usage statistics I have personally found that there is widespread enthusiasm for a mobile data device that officers can use whilst on patrol. There is less acceptance that this device should be utilised whilst on foot or when dealing with suspects. Efforts to ensure officers issued with the current generation of devices utilise them have been extensive and have ranged from encouragement to enforcing compliance. It would be simplistic to view the lack of usage and take up of the current device with either ineptness or a lack of enthusiasm in anything but a small majority. Many officers have tried to utilise the devices but due to a mixture of device failure, lack of connectivity and limited functionality have either given up or limited their usage.

3. There are lessons to be learnt through the deployment of the current device and these have been reflected in the current ISD strategy Members have seen.

4. If there is to be a replacement device then the work identifying how we utilise data when mobile is urgently needed due to the ever increasing limitations of the current device as more devices fail. I would consider that if a replacement is not found within a reasonable time span the devices remaining in current circulation will steadily decline an

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its use fall into disrepute.

5. In the interim I consider that serious consideration be given to switching on the camera functionality, as suggested in the report, under clear parameters for usage.