

ISIS 2008

Appendix B – Themes and Practices in Police Technology

Part I – Themes in the Application of Police Technology

Police should develop or leverage existing agency-specific centres of excellence to create a community of knowledge and source of successful police practices. Collaborative partnerships between agencies address capacity by eliminating unnecessary duplication.

Mobility: The convergence of technology into small portable devices capable of receiving intelligence reports by push-technology, report generation, and accessing CAD (computer-aided dispatch), RMS (records management system) and crime databases is an opportunity to improve effective policing while realizing tremendous efficiencies and corresponding savings. Highly successful approaches focus on delivering core basic elements of the larger system in a simplified user format.

Financial Benefits: Rapid technological advances contrast the slow evolution of public safety systems or structures. The effective application of technology will enable agencies to conduct periodic or ongoing system wide reviews of doctrine, policy, codes of practice, policy manuals, and organizational responsibilities. This helps to reveal duplication and inefficiencies that can be remedied, in many cases in an automated manner saving significant costs associated to manual processes.

The HMIC is moving UK police to review and consolidate, in a standardized format, all existing doctrine, regulations, codes of practice, operational policing manuals and practical advice on best practice in the police service. In Strathclyde, a procedure that used to generate over 20 reports each requiring the re-keying of nominal information has been largely eliminated.

With 43 police agencies in the UK contributing to this outcome, technology is used to facilitate the collection and analysis of submissions, highlighting overlaps or gaps. The outcome has been used to establish key performance indicators (KPI). Police leaders may then use performance indicators to justify additional resources or funding and to reassure governance entities that resources are effectively utilized. The collection and analysis of these indicators is often best automated with subjective interpretation to follow.

Effectiveness: The police play a significant role in the effective delivery of public safety. Success indicators must address their ability to detect, solve, and support the successful prosecution of crime. Additionally, police success must include the effective delivery of services that address public assurance; both elements need to be present and balanced.

Many agencies are leveraging HR resource management technology to provide dispatch systems with information about their personnel and eliminate the need for manual entry. System selection processes can help to ensure the right qualified people attend a specific call for service, identify repeat calls for service and even recall an officer who previously dealt with the incident to the event. This enables the responding officer to intervene appropriately.

Early technology improved the ability of the officer to search multiple databases or systems. Modern technology consolidates the information into one system and enables the push of critical information to appropriate personnel or allows the member to subscribe to breaking news or publications using RSS subscription services. Thus, technology both efficiently and effectively ensures staff members have access to critical information, when they need it.

Efficiency: One of the significant benefits of technology is the manner by which it efficiently performs what would be laborious manual processes. Single sources of data auto-populate other technology systems. FLIR equipped helicopters search a field in a matter of minutes that would otherwise take ground personnel hours to complete.

Technology creates significant opportunities for large financial and human resource deployment savings. Additional opportunities exist for Canadian agencies to further leverage technology as both an instrument of efficiency and tool to track the utilization of resources.

For example, police agencies have significantly reduced the number of call centres and public safety dispatch units, leveraging partnerships and technology in one locale. Citizen convenience is enhanced through single, non-emergency telephone numbers to access a number of partner agencies such as police, fire, ambulance, housing, education and health officials. Consolidated call centres and differentiated staffing models with access to technology facilitated information have in many cases reduced personnel costs, ensured a consistent level of service, and greatly reduced facility costs associated with multiple buildings.

While sharing information or the capacity to do so within and between police agencies is essential, it is important to do so in a standardized manner to facilitate uniform crime reporting. It is equally important to ensure recorded events are proportionately responded to. The more serious a crime, the more details ought to be collected. This has a dual role of garnering public trust and confidence in the police.

Partnerships: “Partner; no...Really Partner” emerged as a dominant theme in the UK research and was supported by other study groups. This concept spoke to the advantages that meaningful partnerships bring to any one or any level within police organizations. It also addressed the need for police leaders to

discount partnerships in form only. This truth applies equally to technology-based partnerships that range from meaningful collaborations to full Public Private Partnerships.

Many different types of partnership opportunities exist in Canada. The Canadian police community has the advantage of excellent research opportunities, including the Canadian Police Research Centre. Centralized research brings with it the advantage of research expertise and proven methodologies, credibility within the research community, and a broad-base awareness of current or proposed research. CPRC for example, has the ability to address funding issues ethically while connecting police, academia and industry on matters of common interest.

Private Public Partnership (P3) opportunities exist and present unique advantages that would otherwise be unavailable to publicly funded entities, including police agencies. North Wales Police contracted IT experts to design an award winning BlackBerry application for officers to tap into CAD, RMS and Crime Data systems. After successful design, North Wales Police has entered a partnership with British Telecom to market to other police and government agencies, the design rationale and processes behind the application. This will generate revenue for the agency and result in funds for otherwise unfunded initiatives. Several agencies cautioned against P3 arrangements advising careful consideration of the impact and limitations of the partnership arrangement.

Part II – Observed Technology Opportunities and Effective Practices

It is not the intent of ISIS2008 to endorse a specific technology referenced in this report as a solution; rather, ISIS2008 recommends serious consideration of the underlying concept behind any technological advantage.

1. Airwave Radios – All 43 distinct police agencies in the United Kingdom have successfully deployed the Airwave Radio system as the national standard radio system. The hardware, channel configurations and naming conventions are consistent. The system leverages data sources in other applications to auto-populate user information, skills and equipment the member possesses. With a single touch of a button, members log on from home, offices, or other established places of deployment and begin their workday. In addition to eliminating redundant data entry, this has reduced the number of police facilities and associated costs.

Technology has been used to facilitate verbal reporting of minor officer-violator contacts thereby reducing the burden on the officer for written reports. The HMIC supports officers using Airwave radios to record details of Stop and Account checks including necessary demographic information to promote bias free policing. The verbal update creates a temporary report held for the life cycle of the recording.

2. Closed Circuit Television - Each of the eleven countries ISIS 2008 visited in the field research stage have taken advantage of publicly managed and administered CCTV. Country specific examples are provided below.

Canadian police agencies could realize similar capacity advantages including the deterrent of crime or disorder, rapid identification of offenders and the successful prosecution including pre-trial disposition of cases by the effective placement and use of quality digital recording devices.

- a. Israel - Jerusalem: There is pervasive CCTV into every public space used to identify suspicious activities and prevent crime or disorder. Recordings also facilitate post-incident investigations. Local police conscripts monitor the system in real time.
 - b. United Kingdom: The UK utilizes the greatest number of CCTV systems of all western countries; the use of which is publicly supported. Local authority personnel (civic or county) manage CCTV systems and monitor in real-time. When an event warrants police attention, the individual monitoring the CCTV system contacts the police and feeds streaming video to the emergency services dispatcher. Police then leverage existing technology to address officer safety, gather additional intelligence, and to prevent, detect and prosecute offenses.
 - c. Ireland – Similar to the UK, the use of CCTV is pervasive. The police equated a CCTV camera to the deployment of an officer on a 1:1 basis. When a specific community is affected by disorder, a cluster of 16 or so cameras are deployed to assist the local officer.
 - d. Australia – With a junior police force largely unskilled to conduct detailed criminal investigations or court-admissible interviews, the use of CCTV is integral to the successful prosecution of offenders. The absence of digital evidence is often a determining factor whether members will conduct an investigation or simply record the event as a reported incident.
 - e. Switzerland and Belgium – CCTV is used selectively by police in areas where police expect to deploy resources or where they expect large crowds. A common application of the technology is to provide responding officers with pre-arrival information (e.g., is the call legitimate, is the situation volatile, etc).
3. Other Digital Video Capture
 - a. Automated Vehicle Licence Recognition – AVLIR is used extensively in the UK. A database that contains information about vehicle movement past any of the AVLIR cameras is retained for an undetermined period of time. Police agencies can probe the data for a specific targeted vehicle or use Business Intelligence to look for associated vehicles to a known target vehicle. The system also sends automated alerts to the

nearest dispatch centre when a vehicle of interest passes by an AVL camera. Police upload licence plates of interest and the system monitors thousands of AVL cameras, mobile and stationary, to alert police dispatchers when a vehicle of interest passes by. Dispatchers direct a response vehicle to the likely point of intercept in real-time.

AVL systems also play key roles in the detection and investigation of criminal or terrorist activities; identifying the movement of the target vehicle and using automated analysis to identify associate vehicles and their movements. Following the Glasgow airport bombing, police did just this, and located another terrorist cell, interrupting their planned activities.

- b. Vehicle or individual officer digital recording cameras – The Home Office and HMIC supports the use of technology to record officer-subject interactions. HMIC is working with the Crown Prosecutors and Courts to have digital evidence accepted as a digital report of events rather than requiring officers to prepare detailed investigative reports or transcripts.

Mobile car video equipment in some agencies includes forward looking and interior vehicle recording with a discretionary 30-60 second pre-event memory. Digital media is then downloaded to a central system. Several Canadian agencies have adopted or are exploring mobile video recordings.

- 4. Mobile Applications – there is widespread adoption of personal digital assistant (PDA) or other mobile devices offering access to Records Management Systems (RMS), CAD and national crime databases. Some devices capture the officer's cursive writing as notes retained in Adobe's .pdf format for court purposes. Technology automatically converts the cursive notes into typed word documents.

Another agency's BlackBerry device delivers simplified and extremely user-friendly versions of the dispatch and records management systems to the end user. Officers can query the national crime database and retrieve a photograph of the suspect for identification purposes.

E-ticketing is available via Blue Tooth connectivity to a portable printers carried on the member's belt or available in the patrol vehicle. Card readers or Optical Character Recognition (OCR) transcribes the information into a typed report for use by others in the justice system.

Technological advances have substantially increased the distribution of intelligence to police personnel using push technology and remote reporting.

This in turn has improved crime detection and solvability while driving down costs and lost productivity associated with travel time for reporting.

5. Intelligence Sharing – efficient collection of electronic data is the foundation for data analysis and development of intelligence. The development of meaningful and reliable intelligence allows police leaders to focus police resources where they will be most effective.

The cultural paradigm of police being the one authority to address social needs is unrealistic. Consequently, methods to share data or intelligence to partners in the public safety and justice systems are of significant importance to police success. Automating these functions will help mitigate impacts on police capacity. Start to finish (CAD to Court) integration promotes data transfer and reduces the administrative burden on police agencies.