Digital Government Case Studies: NZ Police Integrated Crime Information System (INCIS)

New Zealand Police worked on developing a new crime analysis system from the early 1990s. From this activity, the concept of National Crime Information System (NCIS) to deal with a range of policing needs took shape.

Essentially Police wanted to replace their reliance on an old mainframe, national database (the Wanganui computer), with one that put the electronic information about crimes and convictions in the hands of frontline Police by using the power of emerging new hardware and software such as personal computers in police stations. The INCIS concept and vision was consistent and integrated with the Police Five-year Strategic Plan published in 1993, developed around Community Oriented Policing (COP).

By 1992 an articulation of these needs was incorporated in a request for information (RFI) responded to by 62 parties and later a Request for Proposals (RFP) from vendors to supply police with ICT solutions to meet their needs. INCIS was an ambitious, multi-stranded project to supply hardware and software to meet Police's multifaceted, modern-policing, information requirements and Police developed the concept of an 'off-ramp' which would allow them to exit the project if it did not progress satisfactorily.

In 1992, IBM was selected as the preferred vendor, the Police Minister gave his support for the development at a cost of $131 million and lifetime benefits of $312 million[1]. A contract was signed with IBM in 1994.

Five years later in 1999, the INCIS project was disestablished, significantly over initial cost and planned delivery time, and without completion of all the planned deliverables.

What happened in this project, and why, is the subject of much analysis including a Ministerial Inquiry (Gauld & Goldfinch, 2006; Small, 2000) and has been captured as a Case Study (Tyson, 2005; Westaway, 2005a, 2005b). Readers could find much of enduring relevance in these sources. The summary here draws from these sources.

The concept of what Police were trying to achieve in terms of business transformation remained sound and relatively unchanged throughout the project (Small, 2000). An integrated INCIS project team was set up, consisting of Police and IBM personnel, reporting to the Police IT director who had oversight of the INCIS project. The partnership agreement made between Police and IBM, committed them to work together on a relationship based on 'professionalism, integrity, mutual trust and respect'. However it was also later observed that the cultures of IBM as a computer vendor and Police with its quasi military command structures were very different and became a source of issues the project needed to contend with. Price Waterhouse was appointed by Police as independent auditor of the project reporting to the IT Director and Deputy Commissioner od Police as the INCIS project sponsor.

[1] All references to money are in New Zealand Dollars (NZD) unless otherwise stated.

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Guidelines for obtaining funding for the project required a number of steps including development of a Business case. The high-level Business Case was independently reviewed and in 1993 Cabinet approved a predicted total investment on INCIS of $203 million over eight years, starting in 1994, with lifetime benefits of $336 million, an increase on the original figures. The benefits were to come from reduced backroom paperwork, improved workflows and freeing up the time of frontline Police.

An analysis of what INCIS was attempting to achieve, done by an informed departing project manager, at the time of the contract signing with IBM, concluded that Police did not want to be at the 'bleeding edge' of unproven technology solutions and that all the components of INCIS needed to be already working somewhere else. The report also acknowledged that there needed to be allowance for fast-changing technologies and substitutions during the project where these arose. In the same report it was also noted that nowhere else in the world was currently using all of the elements of the INCIS solution in the same combination.

While the concept or vision of what the INCIS application was to achieve remained substantially consistent throughout the eight-year history of the INCIS project, many aspects of both the infrastructure and the application were significantly changed or were amended throughout the Project's development. For example, during development of the detailed Business Case in 1995, parallel work on a new policing strategy led to traffic, firearms and domestic violence being added to the INCIS scope. INCIS was also required to interface with other systems including the Courts Automated Systems Extension (CASE) also under development at the same time.

IBM felt that they were being pushed by Police to deliver a perfect system within a very detailed contract negotiated line by line. By 1999, there had been several renegotiations of project deliverables, timelines and agreed price between IBM and Police. Delays were estimated by Treasury to be costing Police $5.52 million a month because of additional staffing necessitated by the delays. Disquiet among frontline Police about the delays and public scrutiny of the project was also mounting.

By 1999, IBM had provided Police with a national network, Internet/Intranet, 3,500 PCs 800 laser printers, and extra 400 local networks, a central server, a Microsoft suite of services, Lotus notes, GIS, 24X7 service and a library. Significantly they had not supplied case management studies and easy access to the servers and the legacy national mainframe computer. The Police frontline thought the new system slow, inefficient and worse than the one it had replaced. Further, a significant proportion of frontline Police still did not yet have access to INCIS.

By this point in the project, the relationship between Police and IBM had been strained to breaking point over the dissatisfactions each had over the contract, its deliverables, timeline and price. IBM advised Police they would withdraw from additional work and this prompted the Crown to cancel the contract and issue proceedings against IBM. A settlement was negotiated. Ultimately in 2005 Police achieved independence from the national old legacy mainframe crime system.

The Ministerial Inquiry into INCIS concluded that although the project was high risk, the sound concept behind it should have been capable of being achieved. The INCIS project

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should have used conventional technology; separated contractual obligations for the delivery of infrastructure from the delivery of applications; adopted an appropriate form of contract with the delivery of business benefits in modules; had a sound governance and management; proper resources, skills and experience; effective quality and risk management and proper change control.

These features were subsequently built into national policy and process guidelines for the management of large ICT projects.

Some questions for discussion:

What were the positive aspects of the INCIS project that eventually enabled Police to have a system that worked independently from the national old legacy mainframe crime system?

What were the lessons?

Could the same sort of digital government failure happen again?

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