



7. Implementation of the Government Infrastructure Management System project



7.1 Audit conclusion

The Government Infrastructure Management System (GIMS) project has provided participating agencies in the Justice portfolio with software to help them better manage their non-current physical assets (such as land, buildings, plant and equipment).

The Department of Justice (DoJ) planned to fully implement the software by January 2003 across a number of its business groups (Corrections Victoria; Courts and Tribunals; and the Victoria State and Emergency Services) and portfolio agencies (Victoria Police and the Country Fire Authority). At the time of this audit (February 2005), the software was not fully implemented within the DoJ business groups.

Our review of the project's management found that better project governance and coordination would have reduced some of the delays encountered. Specifically, we found that:

- key project documentation was not formally approved
- more senior departmental representation was needed on the project steering committee
- risk management practices were not adequate
- there was no independent quality assurance throughout the project.

One of the aims of the GIMS project was to enable cross-agency comparisons, monitoring and benchmarking of asset management performance. This aim has not been achieved by participating agencies, as not all are recording all common assets (such as plant, equipment and buildings). Unless there is greater standardisation of approaches and asset types recorded, this aim (and one of the stated benefits of the project software) will be difficult to achieve.

With the GIMS software now being considered for use by other public sector agencies, it is important that a full post-implementation review of the Justice portfolio GIMS project be conducted. This will ensure that public sector agencies benefit from the lessons learned by Justice portfolio participating agencies.

RESPONSE provided by Secretary, Department of Justice

The Department of Justice welcomes the Auditor-General's review, and accepts all the recommendations of the report in relation to the Government Infrastructure Management System (GIMS) project. They will assist us in further improving the planning and management of our major projects which is one of our corporate strategic priorities for 2005.

The department acknowledges that prior to 2004 there were gaps in the GIMS project management and governance arrangements. The department has addressed these issues by appointing a new project manager and reviewing the governance arrangements against the ITIL (Information Technology Infrastructure Library) set of best practice standards for IT service management. Consequently, we have developed more detailed project, resource and communications plans, and adopted more regular reporting on project status, scope, budget, risks, and risk mitigation strategies.

The department will also address the remaining issues identified in the audit report, including conducting an overall project implementation review within 6 months of the GIMS implementation in the department, scheduled for July 2005.

It is important to note that the department's usual practice is to formally endorse and monitor project plans and budgets for IT projects. Depending on the project size and complexity, this is done by the Justice Executive, the Knowledge Management Committee, or a Project Steering Committee. As part of the progressive roll-out of the PRINCE 2 project development methodology in the department, provision is made for the inclusion of the quality assurance function for projects.

The Department of Justice pioneered the development and implementation of GIMS for the benefit of the whole of Victorian public sector. Some of the difficulties encountered were due to the groundbreaking and complex nature of the project. The department's experiences as the pilot site will be captured and made available to assist other government departments and agencies should they take up the system.

A recent evaluation by the Office of the Chief Information Officer confirmed the GIMS's applicability across the Victorian public sector. The department is currently assisting in the establishment of an Open Standing Offer Agreement, which will enable other government departments and agencies to take up the system if they so wish.

7.2 Background

The state owns or leases a large number of physical assets (such as land, buildings, plant and equipment), which are used to provide services to the public.

In 1998, a DoJ review of the Justice portfolio's asset management practices found major deficiencies in how information about physical assets was collected, recorded and reported. It found the mix of financial management systems, databases and paper records to be inadequate.

In March 2000, DoJ proposed to the government that an infrastructure management system be established for Justice portfolio agencies. However, the government considered that such a system should operate across the whole public sector. Consequently, in June 2000, the Treasurer approved funding for the GIMS Project.

The project aimed to improve asset management policies and procedures and to provide public sector agencies with computer software to:

- generate better reports about all aspects of asset management
- enable comparisons across agencies of the total investment in assets, operating costs and asset uses
- provide information about short and long-term asset needs
- provide information about the short and long-term budget consequences of different ways of acquiring, disposing of and maintaining assets
- monitor and benchmark the performance of agencies in managing their assets.

As DoJ had initiated the project, the Justice portfolio was chosen as the pilot site. The participating agencies were:

- Victoria Police
- Country Fire Authority (CFA)
- DoJ (including Corrections Victoria; Courts and tribunals; and Victoria State and Emergency Services [VicSES])

Following the completion of a tender process in 2001, a contract was awarded to a private sector contractor in March 2002 to provide and configure for use by the participating agencies 3 software products, focusing on:

- asset and project management - to support the management of asset acquisitions and disposals, maintenance scheduling, and capital construction projects
- tenancy lease management - to support property management

- system interface - to link the above software products to each other and to other software as required.

DoJ intended for the GIMS software to be in use by all participating agencies by 21 January 2003, and for it to be in use by Victoria Police by November 2002.

Our audit examined whether the GIMS project was adequately defined, implemented and managed¹.

7.3 Was the project adequately defined?

In assessing whether the GIMS project was adequately defined, we examined if:

- the project scope and implementation methodology were well-defined
- the implementation methodology included the allocation of staff responsibilities, a breakdown of tasks, timeframes, budgets, milestones and approval processes
- project governance arrangements were adequate
- adequate project plans were developed.

Following the review in 1998 of DoJ asset management practices, a detailed business case was prepared for the development of common practices - and the implementation of software to support these practices. A steering committee consisting of representatives from across the Justice portfolio oversaw this process.

The tender process was conducted between September 2000 and October 2001. After the contract was awarded, the contractor (under the direction of DoJ) developed a project charter and implementation plan. These documents defined the project scope and included the project management methodology. They allocated responsibilities and tasks and identified milestones, and approvals required. However, the charter and plan were not formally approved by the steering committee.

A detailed budget, covering all aspects of the project, was not prepared at the start of the project.

¹ In September 2003, following a tender process, DoJ awarded a further contract to the GIMS contractor for the provision of an additional software module relating to contract management. This constituted a separate project (albeit, within the GIMS project) and was therefore not examined as part of this audit.

In May 2002, DoJ established a new project steering committee comprising 10 representatives of the participating agencies/business groups. In September 2002, this committee was reconstituted as the Project Executive Steering Committee, and comprised the project sponsor as Chair (a Director within DoJ), the Victoria Police Implementation Coordinator and the CFA Project Director.

The committee did not have the authority to allocate resources from the participating agencies and business groups. On several occasions, necessary resources were not forthcoming, in a timely manner, to implement the project.

In 2002, DoJ engaged consultants to review the project documentation. Their report recommended that DoJ's Deputy Secretary Corporate Services, and like people from other participating agencies, be appointed to the committee. They also recommended that DoJ ensure that the project was adequate resourced with the necessary staff.

DoJ originally intended to manage project implementation centrally. However, due to delays in progressing the project, Victoria Police and CFA managed their implementation separately, and each developed separate project plans that were coordinated centrally.

At several stages during the project, milestones were not achieved for individual participating agencies within the specified timelines. In some cases, timely action was not taken to set new timelines.

Conclusion

DoJ did not formally endorse the contractor's charter and plan or develop an initial budget covering all aspects of the project. These were major shortcomings in the process.

Governance of the project, and coordination of participating agencies, would have been improved by the participation of a more senior departmental representative on the steering committee.

Recommendations

- 1. That DoJ, in future, formally endorses project plans and budgets for all major future IT projects before the plans are implemented.**
- 2. That future information technology projects involving multiple business groups within DoJ and/or other agencies have a senior representative (such as the Deputy Secretary) appointed to their steering committee.**

7.4 Was the project adequately implemented?

In assessing whether the GIMS project was adequately implemented, we examined if:

- user's requirements were adequately analysed and defined
- a communications network was developed for participating agencies to access the software
- the software was tested and staff were trained to use it
- data from old systems and records was correctly transferred to the new database
- appropriate security and control processes were developed and implemented.

DoJ expected that user requirements would be mostly common to all participating agencies, but that agencies would also have a small number of specific requirements.

User requirements were defined at workshops between the contractor and representatives of participating agencies and documented in a *Business Solution Design* document. This document described the user requirements of the system, and was approved by all participating agencies in November 2002.

The *Business Solution Design* document did not provide in-depth detail of the users' requirements for all agencies and the DoJ business groups, and was only used by Victoria Police. The CFA, Corrections Victoria and the Courts prepared further business solution designs, with greater detail than the initial document. The business solution design for Corrections Victoria was approved in November 2003.

A key reason for CFA preparing a further business solution design document was that it decided to replace its existing job costing software with the GIMS software. This required the software to be used by all its business units, not just those responsible for asset management. CFA consulted users during the development of its business solution design, but did not have it formally approved by users. CFA told us they believed a full review of the complete document would have further delayed the project and incurred more costs. CFA's Project Director approved the business solution design in December 2003.

It took 6 months for the business solution design document for the Courts to be approved by all relevant parties. The document was finally approved in July 2004.

VicSES prepared a business solution design but withdrew from the project (due to resource constraints) before it was approved. At the time of our audit, the GIMS project manager was negotiating with VicSES about approval of its business solutions design.

It took agencies between 12 months and 18 months to develop more detailed business solutions designs, after the initial design was approved in November 2002. The reasons given for this length of time were that:

- CFA implemented a new financial management system between December 2001 and July 2002, which required it to take staff off the GIMS project until the system was fully established
- the DoJ finance group upgraded its financial systems in 2002 and was unable to allocate resources during this time to define the interface requirements between the GIMS software and their financial management systems, which had to be included in the business solutions design
- the business solution design documentation had to be revisited to include detail requirements that met user needs.

The GIMS project aimed to provide the information and tools to monitor and benchmark the asset management performance of participating agencies. This would require common approaches and procedures by all agencies and, in particular, a common approach to user requirements (as was envisaged in the original business solutions design). This has not occurred. Each agency is using the software to record different types of assets and costs. For example, Victoria Police only uses the software's asset maintenance module for buildings and firearms, whereas the CFA uses it for all its plant and equipment. The status of each participant's implementation is presented later in the report.

The GIMS project established a communications network between participating agencies. Victoria Police and the CFA both operate their own separate computer networks, however they have established linkages with the GIMS network. There was a 7½ month delay establishing the communications network, mainly due to:

- underestimation of the complexity of providing secure access to the GIMS software for participating agencies
- participating agencies being unable to agree on technical aspects of the network
- difficulties coordinating participating agencies and their information technology providers.

The GIMS application software was tested to ensure that it met the requirements of all participating agencies. Staff were also trained to use the software, before it was made available.

Victoria Police was the first agency to use the software, starting in June 2003. CFA and Corrections Victoria started using the software in June 2004 and October 2004, respectively. After each agency implemented the software at their sites, the agencies already using the software were required to test it again. This has resulted in more testing than originally envisaged.

All participating agencies transferred data from their old systems and manual records (such as databases, financial systems, physical stock-takes and manual records) to the new database. At the time of the audit, Victoria Police was checking its GIMS database records of assets against information about the same assets held in another system², despite having implemented GIMS (asset management module) 14 months earlier. Further, at the time of the audit, no participating agency had checked their GIMS database records against records in their financial systems. CFA told us that it planned to do so in future.

Security policies and procedures were developed for the GIMS project by the project team, but at the time of the audit, were not formally endorsed by it. Our audit identified some scope for security improvements, including to password controls and monitoring of security activity. DoJ plans to modify the GIMS software to improve security.

The security of the inter-agency GIMS communications network has not been independently reviewed.

As part of the GIMS project, agencies developed interfaces to their financial management software. However, at the time of the audit, procedures had not been developed to reconcile the data in the GIMS database and the data in their financial systems.

Conclusion

Although one agency implemented the GIMS software over 18 months ago, security policies and procedures for the GIMS software were not yet finalised.

The lack of reconciliations between the data held in GIMS and agency finance systems may affect the integrity of GIMS data and represents a missed opportunity to ensure integrity between the 2 systems.

Victoria Police should have checked the GIMS database records of its assets against information about the same assets held in other relevant systems as part of its GIMS implementation.

² The Licence and Registration System (LARS), which records details of all Victorian registered firearms.

Recommendations

3. **That all participating agencies and business groups regularly check their GIMS database records against their financial systems records.**
4. **That DoJ formally endorse and implement the security policies and procedures for the GIMS software.**
5. **That DoJ facilitate an independent security review over the inter-agency GIMS communications network.**

7.5 Was the project adequately managed?

In assessing whether the project was adequately managed, we examined if:

- the status of the project was regularly reported and monitored
- risks were identified and managed
- budgets were established and costs managed
- the project was on time
- an independent quality assurance process was established
- there was a post-implementation review.

We found that the project manager prepared regular progress reports for the Project Executive Steering Committee. However:

- progress reports, until the appointment of the current project manager in June 2004, did not track project costs
- while project reports did identify risks, there were no detailed mitigation actions, no timeframes or people responsible for the mitigation actions.

The project charter, implementation plan and early project reports identified several risks. These included:

- several projects being run concurrently at the department and Victoria Police, which could delay the GIMS project
- the computer system security and other technical arrangements of each participating agency needed to be changed, which could take considerable time and delay project implementation
- coordination issues with the third party information technology managers of DoJ and Victoria Police.

Each of these risks eventuated during the project. However, the new project manager, as from June 2004, maintained a risk register, which includes mitigation strategies.

DoJ originally planned for the GIMS software to be in use by Victoria Police by November 2002, and in use by all other participating agencies and business groups by 21 January 2003. Figure 7A shows the extent of implementation of the 3 GIMS software modules, at February 2005.

FIGURE 7A: GIMS PROJECT IMPLEMENTATION STATUS

Agency/Business Group	Asset and equipment maintenance and scheduling (a)	Management of capital construction projects (a)	Tenancy lease management	Number of users
Victoria Police	Completed December 2003 (b)	Completed June 2003	Completed June 2003	35
CFA	Completed February 2005 (b)	Completed February 2005	Not applicable	255
Corrections Victoria (DoJ business group)	4 out of 11 prisons, at February 2005	Not yet implemented	Not yet implemented	14
Courts (DoJ business group)	Not yet implemented	Not yet implemented	Not yet implemented	0
VicSES (DoJ business group)	Not yet implemented	Not yet implemented	Not yet implemented	0

(a) These 2 modules form part of the asset and project management software product.

(b) Victoria Police only uses the asset and equipment maintenance module for buildings and firearms, whereas the CFA uses it for all its plant and equipment.

DoJ now plans for all participating agencies and the DoJ business groups to have implemented the 3 GIMS modules by July 2005 (except VicSES, for which there is no scheduled date at the time of our audit).

In February 2002, before the implementation of GIMS commenced, the contractor's fees were approved by DoJ. Other project costs such as hardware, reporting tools and support were approved throughout the project, as required. However, as stated previously in this report, a detailed budget outlining all expected costs was not prepared and approved at the start of the project by the Project Executive Steering Committee. Figure 7B shows project costs incurred by DoJ to 31 December 2004, as identified by this audit.

FIGURE 7B: GIMS PROJECT COSTS INCURRED BY DoJ, TO 31 DECEMBER 2004

Item	(\$'000)
Contractor fees (for software licensing and implementation)	3 891
DoJ costs (including project staff costs)	2 592
Computer hardware training, facilities management, support, reporting tools and other items	1 505
Total	7 988

At the date of preparing this report, the total estimated cost of completing the project at DoJ was \$9.2 million.

As well, project costs to 31 December 2004 for the CFA were \$1 million and for Victoria Police were \$370 000.

At the time of the audit, DoJ was paying for software support and maintenance. However, because the software is yet to be implemented fully across all the agencies, they are not enjoying the full benefits of this support and maintenance.

There was no independent quality assurance process established over the project, as required by the project implementation plan.

At the time of the audit, the project steering committee was reviewing the ongoing management arrangements for the GIMS software. The Office of the Chief Information Officer (of the Department of Premier and Cabinet) had also commenced a review to assess whether the GIMS software would meet the needs of all public sector agencies. However, no review of the participating agencies' implementation of GIMS software (which was completed in some agencies) was conducted.

Conclusion

The GIMS project timeframes, risks and budgets were not adequately managed.

Recommendations

6. **That DoJ regularly monitor and report on expenditure on major projects against a project budget.**
 7. **That DoJ ensure that the quality of every major project is independently assured.**
 8. **That DoJ conduct a post implementation review of the GIMS project.**
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