



Connecting Courts – the Integrated Courts Management System



VICTORIA

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Auditor-General

Connecting Courts – the Integrated Courts Management System

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The Hon. Robert Smith MLC
President
Legislative Council
Parliament House
Melbourne

The Hon. Jenny Lindell MP
Speaker
Legislative Assembly
Parliament House
Melbourne

Dear Presiding Officers

Under the provisions of section 16AB of the *Audit Act 1994*, I transmit my performance report on *Connecting Courts — the Integrated Courts Management System*.

Yours faithfully



DR PETER FROST
Acting Auditor-General

10 June 2009

Foreword

The Integrated Courts Management System (ICMS) is a major Information Technology (IT) program in the Department of Justice (DOJ). Originating from the Attorney-General's *Justice Statement* in 2004, it aims to enable a 'joined-up' approach to the effective handling of increasingly complex cases across Victorian courts and tribunals.

IT-driven programs that seek to transform the operational characteristics of an organisation are inherently complex. Success for these types of programs relies heavily upon effective planning and management systems that take into account this complex and risky environment.

DOJ sought to pursue a cost-effective and low risk path in its original funding proposal, as well as apply lessons learned from other major projects in courts and the justice sector in Victoria and other states. However, during the procurement process DOJ embarked on a higher-risk solution and delivery approach. In so doing, DOJ underestimated the risks and was ill prepared to address the issues that later materialised.

The ICMS experience demonstrates that inadequate analysis and understanding of the complexity of a program can contribute to the extent and impact of risks and issues when they arise. It also reinforces the need for major IT programs in the public sector to incorporate independent representation in their governing bodies to provide objective advice, particularly at critical decision points in a program's lifecycle.

Notwithstanding the many lessons drawn out in this report, it is laudable that the steering committee and program management office have been able to maintain the momentum of the ICMS program in the midst of significant uncertainty arising from supplier-related contractual issues.

It is also clear that the underlying rationale for the investment in ICMS was, and still is, sound. The ICMS program has the potential to enable a more coordinated approach in the courts and tribunals due to the implementation of streamlined processes and systems, and there are positive signs that the program, once implemented effectively, will be able to deliver on that promise.



DR PETER FROST
Acting Auditor-General

10 June 2009

Contents

Foreword	v
1. Audit summary	1
1.1 Introduction.....	1
1.2 Conclusion.....	2
1.3 Findings.....	3
1.4 Recommendations	6
2. Audit Act 1994 section 16 – submissions and comments.....	7
2.1 Introduction.....	7
2.2 Submissions and comments received.....	7
3. Background	9
3.1 Overview of ICMS	9
3.2 Audit objective and approach.....	12
4. Current program status	15
4.1 Scope, schedule and budget status	16
4.2 Causes of variance from original plans	19
4.3 Preparation for transition to service.....	21
5. Planning for ICMS	23
5.1 Introduction.....	24
5.2 Funding decision	24
5.3 The business case for ICMS	25
5.4 Procurement approach for ICMS.....	32
5.5 Conclusion on planning for ICMS.....	36
6. Program control	39
6.1 Introduction.....	40
6.2 ICMS program organisation	40
6.3 Clarity of information for program control.....	43
6.4 Effectiveness of program monitoring.....	46
6.5 Management of programs risks.....	48
6.6 Conclusion on program control.....	50

1 Audit summary

1.1 Introduction

The Integrated Courts Management System (ICMS) is a major Information Technology (IT) initiative of the Department of Justice (DOJ).

The objective of the program is to establish a single integrated technology platform and a set of applications for all Victorian courts and tribunals to:

- enable the courts and tribunals to deal effectively with the increasing volume and complexity of cases
- improve justice system efficiency in case management
- improve the experience of community and legal practitioners in dealing with the justice system.

The 2005–2006 State Budget allocated \$45 million to the ICMS program, which began in July 2005 as a four-year program. The budget allocated \$32 million for capital and \$13 million for operational expenses.

The ICMS program is highly complex, and involves a number of legal jurisdictions. It is being implemented in a period of significant reform in the Victorian courts and tribunals, which adds to its complexity.

At the core of the ICMS program is a common case management system for all Victorian legal jurisdictions. The case management system is an electronic system designed to manage cases in the justice system from start to finish.

The ICMS program has a number of associated deliverables, including:

- establishing and enhancing the videoconferencing and electronic evidence management capabilities in a number of court locations
- introducing internet-based services such as payment facilities, document lodgement and information management
- establishing a courts data warehouse system for collecting and storing data to facilitate analysis for effective decision making.

It affects the following court and tribunal jurisdictions:

- Supreme Court of Victoria
- County Court of Victoria
- Magistrates' Court (including Coroner's Court, Victims of Crime Assistance Tribunal)
- Victorian Civil and Administrative Tribunal
- Dispute Settlement Centre Victoria
- Children's Court of Victoria.

It involves major change for these jurisdictions to improve and integrate their justice services by implementing a common technology platform and harmonising processes.

1.1.1 Objective of this audit

The objective of the audit was to assess whether the progress of the ICMS program has conformed with its original investment objectives.

We examined:

- program planning, including the development of the funding proposal
- procurement strategy, planning and process
- program controls, including program monitoring and review.

1.2 Conclusion

There has been a significant delay in the ICMS program and implementation costs have risen. Unsatisfactory supplier performance has been a major factor in the time and cost overruns. However, inadequacies in the planning and management of the ICMS program have also contributed to the program's difficulties.

The rationale for the investment, nevertheless, was and remains sound. ICMS promises to allow the courts to be managed and run as a coordinated system. DOJ has placed a high emphasis on stakeholder management, and is putting significant effort into engaging stakeholders, as their participation is crucial to the program's success. Encouragingly, we found a number of instances where program participants from various jurisdictions were already pooling their resources to coordinate their systems and processes.

The business case presented to government provided a sound argument based on service need and policy drivers for the investment in ICMS but there were critical gaps in the assessment of the proposed case management solution.

The program underestimated the risks involved in its approach to:

- assessment of program costs
- analysis of industry capability to meet the business requirements
- procurement strategy.

After a prolonged and complex procurement process a different case management system was pursued to the one proposed in the funding submission. The implications of the changed approach were not thoroughly reassessed.

A non-traditional approach to managing the relationship with multiple suppliers was adopted and the consequent risks of this choice were underestimated. DOJ's supplier coordination ability was less than robust and there were gaps in the risk management approach that resulted in the realisation of some key risks.

Nevertheless, DOJ has addressed significant challenges encountered by the ICMS program, mainly due to supplier issues. In spite of these challenges, DOJ has been able to maintain the program momentum.

By their very nature, transformational IT-driven programs are complex and risky. A program such as ICMS, which is being implemented in a period of significant reform in the justice system, is even more complex.

This audit found a number of effective practices adopted by the ICMS program to deal with such complexity. These practices include:

- strong articulation and communication of vision
- strong belief in the value of the outcome from all the stakeholders
- real commitment from the steering committee and program management team
- active involvement of stakeholders from the judiciary
- effective use of resources from jurisdictions within the program team
- focused effort on dealing with change management
- strong contract management procedures
- sustained effort from the steering committee and program management team to see the program through difficult periods.

Nevertheless, the audit also found some major flaws in program planning and control from which important lessons need to be learned. Consequently, this report focuses on these program management shortcomings.

1.3 Findings

1.3.1 Current status of the ICMS program

The ICMS program commenced in July 2005 as a four year program scheduled to complete in June 2009.

Two of the five program components have been delivered, but the case management system, the largest and most complex component, has been delayed by at least fourteen months with the completion date revised to August 2010.

The capital cost of the program has increased from \$32.3 million to \$44 million, an increase of \$11.7 million, or 36 per cent. As at March 2009, \$28 million of the allocated \$32.3 million in capital funds had been spent.

Due to delay, the ICMS program's operational spend has been deferred. For the four year period covered in the allocated budget, operational costs have reduced from \$12.8 million to \$7 million.

Software for the case management system began to be delivered in February 2009. This software release will be configured by DOJ for the use of the Supreme Court, the first jurisdiction in DOJ's planned roll-out schedule. Incremental delivery of software is planned for other jurisdictions.

DOJ bought a case management system supplied by a United States based company, with the contract for implementation signed with its fully owned Australian subsidiary. The supplier's poor performance has significantly contributed to the program's delay.

In September 2008, the supplier advised DOJ that it had sold its software development division, including the ownership of its case management solution, to another company based in Canada. This sale led to significant contractual negotiations between DOJ and the supplier. These negotiations were effectively settled in April 2009, to DOJ's satisfaction.

More positively, the ICMS program has commenced planning for service readiness, in association with the jurisdictions. This is important, as realisation of most of the benefits associated with the ICMS program is contingent on the successful roll-out of the case management system.

DOJ believes that the completed projects, Judicial Officers Information Network (JOIN) and Smart Courts, are starting to deliver some benefits. For example, online resources available on JOIN have saved judicial users many hours of legal research time. DOJ is in the process of collecting the relevant benefits measurement data to validate these early observations.

1.3.2 Planning for ICMS

The need for the investment in ICMS was soundly established. The ICMS business case thoroughly described its objectives, scope, the service need for ICMS, and identified key stakeholders. It had a robust plan for stakeholder engagement and communication.

The business case for ICMS was built on the premise that DOJ would enhance the existing case management solution used in the County Court and implement it in other jurisdictions. This was expected to provide value for money, with lower risks compared to the alternatives.

However, there were critical uncertainties in DOJ's assessment of system costs and supplier analysis when developing the business case.

The procurement strategy for ICMS was not well defined. A robust analysis was not undertaken to establish the implications of pursuing a non-traditional method of using a systems integrator, which is a supplier that takes products from multiple sources and integrates them into a complete working solution.

During the procurement process DOJ found that its preferred option of enhancing an existing solution was not viable due to gaps between DOJ's technical expectations and supplier capabilities.

In the end, DOJ selected a different case management system solution from the one recommended in the funding proposal. The selected solution involved a higher degree of delivery risk. DOJ's assessment of the implications of the changed solution approach for the program, however, was not robust.

DOJ introduced strong measures to the contractual model to manage payments for deliverables such as staged payment commitments, payments based on the measured value of deliverables, and risk sharing mechanisms.

DOJ followed the appropriate procurement and probity processes. The steering committee and DOJ's senior management ratified the program's procurement, satisfying their accountability obligations.

1.3.3 Program control

The ICMS program has faced significant challenges due to supplier related delivery and contractual issues.

DOJ has been able to maintain the program momentum despite these issues and has secured an appropriate contractual arrangement with the suppliers involved.

DOJ has thoroughly engaged program stakeholders and has designed the ICMS organisation effectively. It has addressed the issues that arose outside of its direct control.

DOJ assumed an increased responsibility for supplier coordination due to the supplier engagement model it pursued. However, its supplier coordination ability was not robust due to its use of an ineffective delivery monitoring mechanism.

DOJ's risk management approach in the ICMS program had gaps, particularly in the early stages. It underestimated key risks which later materialised with adverse effects. For a large part of the ICMS program, lack of up to date program control documentation has hindered DOJ's ability to critically assess the program's ongoing viability.

The ICMS organisation and governance model reflected industry best practice in project and program management. Notwithstanding, this model would have benefited from the inclusion of independent representative with specialist expertise to assist with challenges associated with a major IT-driven transformation program.

1.4 Recommendations

For the ICMS program, DOJ should:

- produce, and communicate to stakeholders, a comprehensive service readiness plan, as per the guidelines available from program management best practice and Gateway, to assist delivery of ICMS benefits (**Recommendation 4.1**).
- use the Gateway Review Process to assess:
 - readiness for service
 - benefits realisation (**Recommendation 4.2**).
- put in place a mechanism for monitoring and reporting the status of supplier deliverables using the 'effort remaining' measure and clearly allocate associated responsibilities between DOJ and the Systems Integrator (**Recommendation 6.1**).
- appropriately document and maintain the business case and program management plan as per the project and program management methodology adopted by the ICMS program (**Recommendation 6.2**).
- clearly report the progress of the ICMS program against the costs and schedule reference data outlined in the business case (**Recommendation 6.3**).

For large IT transformation programs, DOJ should:

- review the lessons learned from supplier delay, and apply these to current and future due diligence assessment of supplier capability (**Recommendation 4.3**).
 - incorporate a thorough assessment of the supplier market, as per DTF's business case development guidelines, in its funding proposals (**Recommendation 5.1**).
 - review its approach to supplier coordination in the ICMS program to guide the development of future procurement strategies (**Recommendation 6.4**).
 - incorporate the use of system sizing analysis tools used in the IT industry as an objective basis for assessing:
 - the fit of candidate solutions to business requirements
 - system development costs (**Recommendation 5.2**).
 - undertake periodic reviews by external organisations specialising in IT program health-checks (**Recommendation 6.5**).
 - align its risk management approach with DTF's recently launched project risk management guidelines (**Recommendation 6.6**).
 - incorporate independent representatives with specialist expertise into governance bodies (**Recommendation 6.7**).
-

2 Audit Act 1994 section 16 – submissions and comments

2.1 Introduction

In accordance with section 16(3) of the *Audit Act 1994* a copy of this report was provided to the Department of Justice and the Department of Treasury and Finance with a request for comments or submissions.

The comments and submissions provided are not subject to audit nor the evidentiary standards required to reach an audit conclusion. Responsibility for the accuracy, fairness and balance of those comments rests solely with the agency head.

2.2 Submissions and comments received

RESPONSE provided by Secretary, Department of Justice

The department welcomes the audit conclusion that the rationale for the investment in the Integrated Courts Management System (ICMS) was and remains sound and that a number of effective practices have been adopted by the ICMS program to deal with this complex transformational program. It is acknowledged that ICMS is the largest ICT-enabled transformational program ever undertaken by any Australian court system and that the scope of the program creates inherent complexity.

The report notes that unsatisfactory supplier performance has been a major factor in the time and cost overruns for ICMS and acknowledges that the department has been able to maintain program momentum despite these issues. This momentum is evidenced by the fact that the version of the ICMS case management system to be implemented in the Supreme Court has been delivered to the department and is currently being tested.

The department is pleased to note the audit has found that its procurement processes met the government's strict probity standards.

RESPONSE provided by Secretary, Department of Justice – continued

The department is confident that the governance and program management arrangements that it has in place for ICMS reflect best practice. The robust governance arrangements have ensured appropriate decision making and information to government throughout the project, including in relation to any changes in direction. It believes that this robust approach to governance combined with the highly effective stakeholder management and change management arrangements that are in place will ensure ICMS' continued success.

The department notes that the ICMS program has delivered tangible benefits to Victoria's Courts to date through successful implementation of the following projects:

- *the Judicial Officers Information Network (JOIN) project which gives judicial officers and other court staff on-line access to a wide range of legal information*
- *the Smart Courts project which has significantly upgraded the video conferencing and electronic evidence capability of more than 40 per cent of Victoria's courts.*

The department will implement all of the recommendations in the report noting that implementation of some recommendations was in train at the time of writing the report.

The department is also continuing to enhance its approach to the development and delivery of major ICT projects utilising the VAGO practice guide and independent advice.



3 Background

3.1 Overview of ICMS

The Integrated Courts Management System (ICMS) is a major information technology initiative being implemented by the Department of Justice (DOJ).

The system will provide integrated computer applications and technology platforms for all of Victoria's courts and tribunals, supporting the government's long-term strategy to modernise the justice system.

The scope of the ICMS program is highly complex, and it involves a number of jurisdictions. It is being implemented in a period of significant reform in the Victorian courts and tribunals, which adds to its complexity.

ICMS involves major change for these jurisdictions as they improve and integrate their justice services by implementing a common technology platform and harmonising processes.

3.1.1 Origins of the ICMS program

Over the last decade the need to modernise and integrate the justice system and to make it more accessible to the community has been recognised in departmental initiatives and government policy.

DOJ's *Information Technology Strategic Plan* of April 2002 proposed an integrated platform across all court jurisdictions. The plan outlined an integrated systems architecture for courts and tribunals, which would replace outdated systems and enable the courts to offer more effective services to the community and the justice profession.

In May 2004, the Attorney-General's *Justice Statement*¹ outlined the government's long-term strategy and policy agenda on justice. Part of this strategy called for modernising the justice system through technology and proposed that the government work with the courts to install an improved technology platform through a program of works, referred to as the ICMS.

A *Courts Strategic Direction* statement was issued in September 2004 for the structural, procedural and administrative reform of the courts and tribunals. It highlighted ICMS as a key component of the reform.

¹ *Attorney-General's Justice Statement, May 2004*, State Government of Victoria, Melbourne. This publication can be found at <<http://www.justice.vic.gov.au>>.

ICMS and the Judiciary

The Westminster system of government in place in Victoria broadly conforms to the 'separation of powers doctrine', which provides for constitutional separation of the powers and responsibilities of the Legislature, the Executive and the Judiciary.

The Legislature is comprised of the citizens' elected representatives and makes the laws for Victoria. The Executive is the body that makes sure that the laws are implemented by administering public service departments—represented by DOJ, in the case of ICMS. The Judiciary is the body that interprets the laws and administers justice via judicial officers and the courts and tribunals.

Each court or tribunal is its own jurisdiction and functions independently—they are not responsible to the Parliament. However, because Parliament funds their activities, the Chief Executive Officer of each jurisdiction is ultimately responsible to DOJ for expenditure and administration within the judicial jurisdiction.

Although the implementation of ICMS is an administrative task of DOJ, the program must also take into account the interests of the Judiciary, as the critical stakeholders and end-users of the program's applications and technology.

3.1.2 The ICMS program

The 2005–2006 budget allocated \$45.1 million to ICMS. The four-year program started in July 2005 with \$32.3 million in capital funds and \$12.8 million in operating funds.

Objectives

The ICMS is a single integrated technology platform and set of applications for all Victorian courts and tribunals designed to:

- enable the courts and tribunals to deal with the increasing volume and complexity of cases
- improve the productivity of the justice system in case management
- improve the community and legal practitioner experience when dealing with the justice system.

ICMS is designed to harness improvements in technology to deal with a number of known case management challenges, such as:

- operational inefficiencies due to different case management systems in place across the justice system (there are 15 legacy systems across eight jurisdictions, with the Courtlink system in the Magistrates' Court of Victoria considered to be obsolete)
- staff needing to operate multiple case management systems in multi-jurisdictional locations
- different electronic filing systems, which are inconsistent and confusing for legal professionals and the public
- difficulties in extracting management information from case management systems to assist effective decision making

- limitations in courtroom facilities for the handling of electronic evidence
- outdated technology in need of upgrades, particularly audio-visual equipment used for the protection of 'at risk' or 'vulnerable' witnesses.

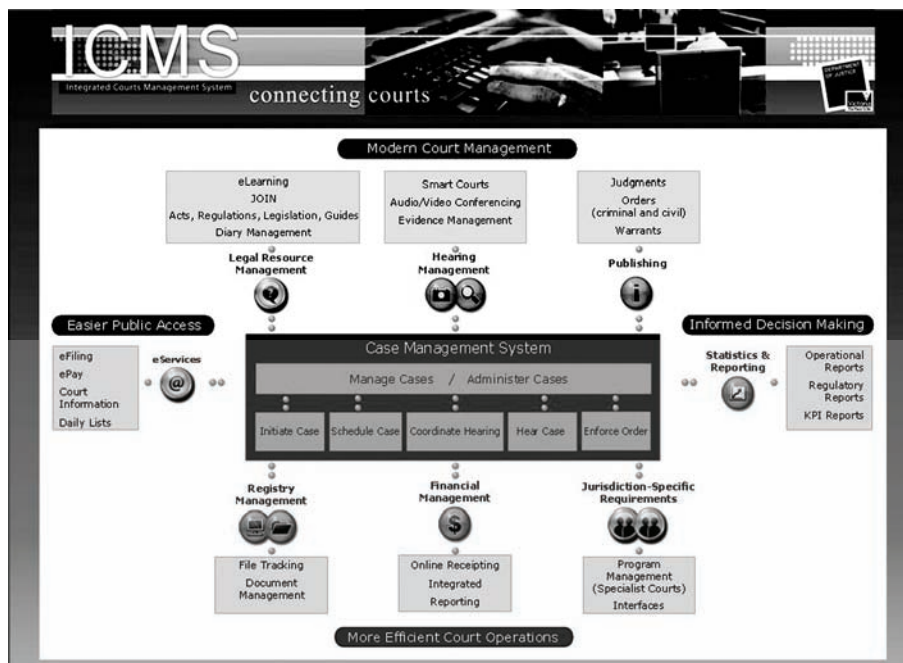
Scope of the ICMS program

The ICMS program covers ICT services related to case management for all the court and tribunal jurisdictions covered in the *Courts Strategic Direction Statement*:

- the Supreme Court of Victoria
- the County Court of Victoria
- the Magistrates' Court, including the Coroner's Court and the Victims of Crime Assistance Tribunal
- the Victorian Civil and Administrative Tribunal
- the Dispute Settlement Centre Victoria
- the Children's Court of Victoria.

Figure 3A gives a diagrammatic overview of the ICMS program.

Figure 3A
Overview of ICMS functionality



Source: Department of Justice.

ICMS deliverables

The ICMS program is designed to deliver:

- a common case management system across all Victorian jurisdictions
- enhanced videoconferencing and electronic evidence management in selected Victorian courts
- enhanced intranet services for judicial staff knowledge management
- enhanced internet-based services such as payment and document lodgement
- a data warehouse system to collect and store data from various court technology systems for analysis.

The case management system is the core and largest component of ICMS. It is an electronic system that will support the management of a case in the justice system from start to finish.

3.2 Audit objective and approach

3.2.1 Objective of this audit

The objective of this audit was to assess whether the progress of the ICMS program has conformed with its original investment objectives.

The audit examined whether:

- the program planning was adequate to meet the expectations of the original investment proposal
- the current program status reflects continuing viability of the original investment justification and the proposed benefits
- the procurement process was conducted in an informed manner, taking into account the key risks related to software purchase and modification
- program controls have adequately responded to emerging variances from original plans, and the significant delivery risks.

3.2.2 Audit approach

The audit reviewed program planning and management by the ICMS Program Management Office within DOJ, and consulted relevant court jurisdictions and departmental staff.

The audit was conducted according to the Australian auditing standards applicable to performance audits.

The total cost of this audit, including staff overheads, expert advisors and the preparation and printing of this report, was \$360 000.

3.2.3 Structure of this report

The rest of this report is structured as follows:

- Part 4 provides the current status of the ICMS program. It describes how the program is tracking against the planned scope, schedule and budget. It describes the main causes of the variance from the original plans and outlines how the program can move forward.
 - Part 5 reviews DOJ's planning of ICMS. It covers DOJ's funding proposal to the government and reviews DOJ's procurement process. This is followed by an analysis of the procurement result compared with DOJ's funding proposal.
 - Part 6 covers DOJ's management and control of the ICMS program. It analyses the ICMS program's:
 - organisation structure
 - monitoring and review functions
 - handling of program risks.
-

4

Current program status

At a glance

Findings

- The scheduled completion date for the Integrated Courts Management System (ICMS) has been revised from June 2009 to August 2010.
- Capital costs have risen by 36 per cent from \$32 million to \$44 million.
- Two of the five program components have been delivered, but the case management system, which is the largest component, has been delayed.
- Supplier performance issues have been a major cause of the program's cost overruns and delays.
- Inadequacies in the Department of Justice's (DOJ) reassessment of the original planning assumptions when it changed its approach to the case management system have also affected program costs and schedule.
- DOJ has spent significant effort to effectively resolve a critical contractual issue, which arose due to the sale of the supplier's assets.
- DOJ has obtained significant compensation from the supplier to partially offset costs incurred due to delivery delay.
- The delivery of the case management system software has begun, and DOJ is now preparing for service readiness.

Recommendations

For the ICMS program, DOJ should:

- produce and communicate to stakeholders, a comprehensive service readiness plan, as per the guidelines available from program management best practice and Gateway, to assist delivery of ICMS benefits
- use the Gateway Review Process to assess:
 - readiness for service
 - benefits realisation.

For large IT transformation programs, DOJ should:

- review the lessons learned from supplier delay, and apply these to present and future due diligence assessments of supplier capability.

4.1 Scope, schedule and budget status

The ICMS program is some 14 months late and its capital costs have increased by nearly \$12 million.

4.1.1 Scope

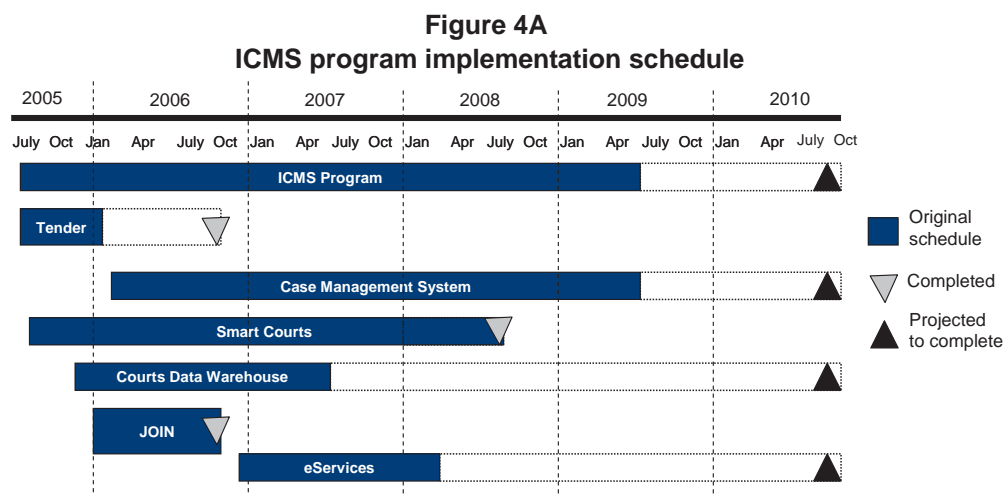
The four-year ICMS program started in July 2005 and was due for completion in June 2009. It consists of a number of projects:

- **Case management system**—an advanced case management workflow application
- **Smart Courts**—an advanced audio-visual capability for courts
- **Judicial Officers Information Network (JOIN)**—an on-line knowledge management system for judicial staff
- **eServices**—providing web-based services such as payment and document lodgement
- **Courts data warehouse**—data collection and analysis to support management decision making.

4.1.2 Schedule

The ICMS schedule is showing a delay of some 14 months, and is not expected to be completed until August 2010. Two out of the five projects within the program are complete, however, other projects, including the largest component—the case management system—have been delayed.

Delays in delivery of software from the case management system supplier has contributed significantly to the delay and cost increases. Figure 4A gives an overview of the ICMS program implementation schedule.



Source: Victorian Auditor-General's Office, based on Department of Justice data.

4.1.3 Budget

Figure 4B gives an overview of the ICMS costs estimated for the funding proposal in June 2005 and the revised expenditure, as at February 2009.

Figure 4B
Comparison of ICMS original and revised cost estimates

Cost components	2005 estimate (\$ million)	2009 estimate (\$ million)	Variance (\$ million)
Capital costs	32.3	44.0	11.7
Operational costs	12.8	7.0	-5.8
Total	45.1	51	5.9

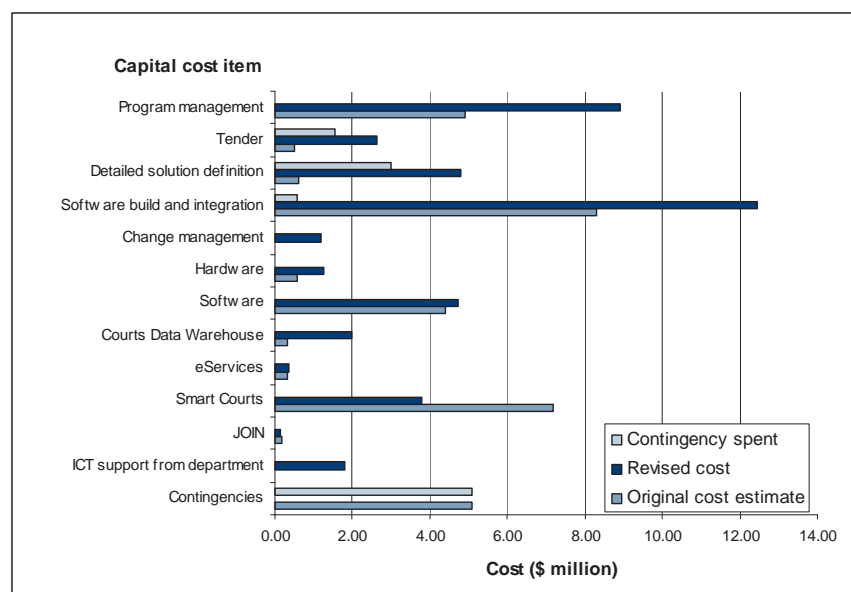
Source: Victorian Auditor-General's Office, based on Department of Justice data.

The capital cost of the ICMS program has increased by 36 per cent. As at March 2009, \$28 million of the allocated \$32.3 million capital had been spent.

The reduction in the ICMS program's operational spend forecast within the four year budget allocation period is due to the delay in the implementation of the case management system.

Figure 4C gives an overview of the capital costs estimated for the funding proposal in June 2005 and the revised expenditure, as at February 2009.

Figure 4C
Comparison between original and revised ICMS capital cost estimates



Source: Victorian Auditor-General's Office, based on Department of Justice data.

4.1.4 Status of program components

Case management system

The case management system is the core and largest component of the ICMS program. It is a computerised system for management of cases in the justice system from start to finish.

The project has three key stages:

- Stage 1—model registry design
- Stage 2—preparation and final design
- Stage 3—build, configure and deploy.

Stage 1 is the installation of a base system—without Victorian modifications—to test and validate business requirements. This stage finished on schedule in March 2007.

Stage 2 is the development of functional and technical designs. This was finished in June 2008, seven months behind schedule.

Stage 3 is software development, testing, training and rollout of the system into each of the court jurisdictions. This was scheduled to finish in June 2009. It has begun, and DOJ is forecasting this stage to finish in August 2010.

A software release of the case management system for the Supreme Court was delivered by the supplier to DOJ in February 2009. This software will be configured by DOJ for the Supreme Court, which is the first jurisdiction in DOJ's planned rollout schedule. Incremental delivery of software is planned for other jurisdictions.

Smart Courts

The Smart Courts project provides audio visual technology essential for protecting 'at risk' or 'vulnerable' witnesses in criminal cases.

The project finished on schedule in June 2008. It cost \$3.8 million compared to a budget of \$7.2 million. This was due to DOJ reassessing the number of courts in need of installation or upgrades to their audio visual technology facilities.

DOJ's original target was to upgrade 30 court locations across Victoria (53 per cent of all courts and tribunals), but it later revised its target to 24 courts (44 per cent). The \$3.4 million budget underspend has been redirected to other parts of the ICMS program.

Judicial Officers Information Network (JOIN)

JOIN is an online resource for Victoria's judicial officers and their support staff. It allows judicial staff to access legislation, judgements, and other publications such as legal reference material and sentencing statistics. It is available to authorised users via the web-based system.

JOIN, was delivered on time in September 2006 and under budget for \$149 000, compared to the \$190 000 allocated.

Courts data warehouse system

The courts data warehouse system will allow courts staff to extract consistent and accurate data from the case management system. This data can be used to improve the justice system's administrative efficiency.

It was originally allocated \$342 000 but the cost has risen to \$1.9 million due to a shift in DOJ's broader technology strategy. This project has been delayed because it is dependent on the case management system.

eServices

The ICMS program is developing enhanced web-based services, which include payment, document lodgement and search facilities.

The program has allocated \$325 000 for eServices. The scope is being reviewed and the project is behind schedule as it depends upon delivery of the case management system.

4.2 Causes of variance from original plans

Variance in schedule

The ICMS program is currently 14 months behind schedule. The following factors have contributed to the delay:

- a longer than expected procurement process
- delay in receiving deliverables from the case management system supplier
- a change in ownership of the supplier's assets.

The procurement of the case management system took nine months longer than planned. During the market solicitation process, DOJ changed its procurement plan because the market was unable to supply the case management system in the form that DOJ required.

DOJ has been implementing a case management system originally supplied by a company based in the United States, with DOJ's contract signed with the United States company's fully owned subsidiary based in Australia. The supplier has not met the delivery schedules set by DOJ, and as agreed in the contract.

In September 2008, the company advised DOJ that it had sold its software development division and software assets—including the case management solution—to a company based in Canada. The sale meant that DOJ had to undertake intense negotiations with the contracted supplier to make sure that it would fulfil its contractual obligation to DOJ. In April 2009, DOJ concluded these negotiations and settled an appropriate contractual arrangement with the supplier.

Variance in cost

The estimated total capital cost of the program has risen by \$11.7 million (36 per cent) from \$32.3 million to \$44 million. The following factors have contributed to this increase:

- higher program management costs due to delays in the delivery of the case management system
- complexity in solution definition, development and integration of the case management system
- complexity in the procurement process
- an increase in technical support resources required within DOJ
- system development costs related to implementing the courts data warehouse.

The case management system delay has lifted the running costs of the program office. DOJ estimates that, based on the new projected deadline of August 2010, this will add \$4.6 million in extra costs. DOJ has negotiated compensation from the contracted supplier, to substantially offset these costs incurred due to supplier delay.

The cost estimates in the original business case were based on DOJ's assumption that the case management system would be delivered by enhancing a solution already in place in Victoria. However, during the procurement process this approach was found to be unviable, as the market did not provide the expected 'low-risk' solution.

DOJ's original cost estimates for procurement, design, development and integration were too optimistic, and it has spent its full \$5 million contingency budget, mainly on the procurement and system design stages.

The courts data warehouse project was originally budgeted at \$342 000, with DOJ expecting to cover these direct ICMS costs in its 'whole of justice' data warehouse strategy. However, this strategy has been abandoned by the department and the ICMS program has had to absorb the costs for the data warehouse project. The revised estimate for the courts data warehouse system is currently \$1.9 million.

Conclusion on variance

The variations to both program schedule and cost can be attributed to three factors:

- performance and contractual issues with the supplier of the case management system
- inadequacies in DOJ's reassessment of the original planning assumptions when it changed its approach to the case management system solution
- a change in DOJ's corporate strategy, affecting the data warehouse system required to support ICMS.

4.3 Preparation for transition to service

As the ICMS program continues with implementation and nears completion, business operations within each jurisdiction must prepare for the new system.

The ICMS program has commenced planning for service readiness, in association with the jurisdictions. Typically, a jurisdiction would need 10 months advance notice for intensive change preparation before the ICMS service begins to operate. Rollout of ICMS is planned to start with the Supreme Court, followed by the Magistrates' Court, and then other jurisdictions.

This means that the ICMS program will need a comprehensive transition plan for service readiness. Best practice program management guidelines such as *Managing Successful Programmes*, established by the United Kingdom's Office of Government Commerce¹ provide detailed guidance to assist with planning for service readiness. The Victorian Government's Gateway Review Process (Gateway) also provides similar guidelines as part of its 'Gate 5—Readiness for Service'.

For ICMS, such a plan should outline:

- all assumptions made by the ICMS program about the roles and responsibilities of the jurisdictions in the roll-out of the systems
- business continuity plans to conduct normal operations during the roll-out
- exit or contingency arrangements in case there are problems with the transition.

DOJ is planning to conduct a Gateway review of the ICMS program in preparation for transition to service.

Recommendations

For the ICMS program, DOJ should:

- 4.1 Produce and communicate to stakeholders, a comprehensive service readiness plan, as per the guidelines available from program management best practice and Gateway, to assist delivery of ICMS benefits.
- 4.2 Use the Gateway Review Process to assess:
 - readiness for service
 - benefits realisation.

For large IT transformation programs, DOJ should:

- 4.3 Review the lessons learned from supplier delay, and apply these to current and future due diligence assessments of supplier capability.

¹ Further information on the Office of Government Commerce can be found at <www.ogc.gov.uk>.

5 Planning for ICMS

At a glance

Findings

- The business case to government provided a sound rationale based on service need and policy drivers for the investment in the Integrated Courts Management System (ICMS).
- There were critical gaps in the assessment of the proposed case management solution with respect to costs and the capability of the supplier market.
- The Department of Justice (DOJ) pursued a different type of case management system from the one proposed in the funding submission after a prolonged and complex procurement process.
- The implications of the changed solution approach were not thoroughly reassessed.
- A non-traditional approach to managing the relationship with multiple suppliers was adopted and the associated risks from this choice were underestimated.
- Procurement and probity processes were complied with, but there were critical gaps in the decision-making analysis that exposed the program to delivery and cost risks.
- Effective measures to manage supplier payments were put in place.

Recommendations

For large IT transformation programs, DOJ should:

- Incorporate a thorough assessment of the supplier market, as per the Department of Treasury's (DTF) business case development guidelines, in its funding proposals.
- Use system-sizing analysis tools from the IT industry to objectively assess:
 - the fit of candidate solutions to business requirements
 - system development costs.

5.1 Introduction

Typically, planning for a major investment starts with a funding proposal to implement a course of action, normally through the development of a business case.

A business case should describe how and why the proposal is viable, so that the funding authority has sufficient data to support its decision to invest in the program. Where the program involves buying products, there also needs to be a clear understanding of what is available in the market so that the program can effectively plan and buy.

In 2005, the government allocated \$45.1 million to DOJ over four years for the ICMS program. The core item to be developed and deployed by the program was a case management system.

Although the business case for ICMS had a robust rationale based on policy and business needs, there were critical gaps in the analysis and assessment of the:

- impact of the case management system on related technology infrastructure and processes
- capability of the case management system supplier industry
- program costs.

These gaps in program planning meant that the ICMS program:

- did not align with the capability of industry to supply what it needed
- had to alter its approach after a lengthy procurement exercise
- underestimated the implications of buying a product that differed from the original plan
- was exposed to a high degree of risk.

5.2 Funding decision

The 2005–06 State Budget allocated \$32.3 million in capital and \$12.8 million in operating funds over four years for the ICMS program.

Funding was approved based on the premise that the ICMS program was a necessary enabler for the *Justice Statement's* policy objective of modernising the courts. Furthermore, ICMS enabled the courts to comply with new legislation to protect vulnerable witness and victims.

An important element of the funding submission was to implement a common case management system across all Victorian court jurisdictions.

The proposal was designed to enhance the Case and List Management System (CLMS) of the County Court of Victoria, and rolling it out to different jurisdictions in phases.

There were two important attributes of this approach:

- it leveraged previous investment in the CLMS case management system platform and was therefore cost effective
- it involved a solution already operating in Victoria, which meant that the implementation risk was low.

5.3 The business case for ICMS

Department of Treasury and Finance (DTF) guidelines for developing business cases require:

- explanation of the program's objectives, scope, and its alignment with the government's strategic aims
- specification of key deliverables of the program and associated benefits and timelines
- a comparative appraisal of the costs, benefits and risks of the options to give the basis for deciding which option to pursue
- identification of key risks and approach to risk management
- analysis of the program's impact on the organisation and approach of change management.

The ICMS program followed a government guideline available in 2004 for the development of business cases. It also used the Gateway Review Process for independent appraisal of the program's progress.

The ICMS business case described objectives, scope, the service need for ICMS, and identified key stakeholders. It had a robust plan for stakeholder engagement and communication.

The main element of the business case is the case management system, around which other parts of ICMS, such as Judicial Officer's Information Network (JOIN) and the courts data warehouse, are built. It also includes the 'Smart Courts' initiative, which is the ICMS program component for advanced audio visual facilities in courts.

5.3.1 Case management system

The business case analysed options for a case management system based on an external consultant's assessment of ICMS architecture.

Five options were advanced:

- Option 1: Do nothing.
- Option 2: Deploy the CLMS without any changes across all jurisdictions.
- Option 3: Enhance the CLMS and deploy across all jurisdictions.
- Option 4: Adapt a new product.
- Option 5: Build a bespoke system from scratch.

The business case analysed the options for strategic fit, cost, benefit, risk and time to implement, then recommended Option 3, the 'Enhance CLMS' approach.

Figure 5A summarises the evaluation of the implementation options.

Figure 5A
Comparison of case management system implementation options

Objectives	Do nothing Option 1	Roll out CLMS as is Option 2	Enhance CLMS Option 3	Adapt a package Option 4	Custom built Option 5
Support justice statement outcomes	Low	Low	Medium–high	High	High
Deliver ICMS functional requirements	Low	Low	High	High	High
IT capital costs	Nil	\$23.3m	\$30.5m	\$39.4m	\$55.4m
Benefits	Low	Negative. Additional 40 staff estimated to be required for MCV to support lack of functionality in CLMS (orders and day end processing)	High	High	High
Implementation risk profile	Low	Medium	Medium	High	High
Time to deliver	NA	3 years	4 years	4–5 years	5 years
Increase DOJ output delivery	Low	Medium	High	High	High
Retain / improve jurisdictional functionality	Same	Very low—will have negative impact on MCV/VCAT	High	High	High
Workload and resource management	No change	Will have negative impact on MCV/VCAT	Improvement	Improvement	Improvement
Support recommended architecture	Low	Low	High	High	High
Decision	Assess	Assess	Assess	Reject	Reject

Source: Department of Justice.

The analysis was primarily based on an assessment of case management systems in Victorian jurisdictions and was influenced by the ICMS investment strategy to leverage an existing investment. Therefore, analysis of the external supplier market was limited at this stage of the investment.

The business case identified that a market analysis would be conducted prior to procurement, through a publicly advertised information request, to ensure that a cost effective solution was purchased. For this purpose, the proposed CLMS solution was to serve as a benchmark for other bids.

A key issue with the options analysis in the business case was that it was done without effectively engaging the supplier industry to understand the capability of the case management suppliers in the market place.

It is good practice for investment proposals to undertake a thorough analysis of the supplier market to understand the range, maturity and pricing of products on offer. This market analysis is used to evaluate whether the options presented in the business case are based on a sound assessment of industry capability.

DOJ cited probity issues as the reason for not entering into detailed discussion with the supplier industry while developing the business case. This argument is flawed. Meaningful dialogue with the supplier industry can be conducted before the tendering process, to alleviate the risk that the proposed options may not be credible.

Because the business case put to government did not contain a robust market analysis, it consequently risked uncertainty regarding the underlying assumptions concerning the program delivery costs and schedule.

5.3.2 Costs

Figure 5B shows the cost of the ICMS program, as projected over ten years.

Figure 5B
ICMS program costs projected over ten years

Cost component	Program cost over ten years (\$ million)
Capital costs	32.3
Operational costs	52.6
Total	84.9

Source: Victorian Auditor-General's Office, based on Department of Justice data.

Figure 5C shows the approved capital cost allocation of the ICMS program.

Figure 5C
Approved capital cost allocation for implementation of ICMS

Project component	Approved budget for capital costs (\$ million)
Program Management Office (including training)	4.9
Tender, including requirement definition	0.5
Detailed solution definition	0.6
Application build integration (including testing and data migration)	8.3
Hardware	0.6
Software	4.4
Internet based services (eServices)	0.3
Courts Data Warehouse	0.3
Smart Courts	7.2
JOIN	0.2
Contingencies	5.0
Total	32.3

Source: Victorian Auditor-General's Office, based on Department of Justice data.

The following shortcomings were identified with the cost analysis presented in the business case:

- there was a high degree of uncertainty in estimating the size, complexity and cost of the case management system
- there was insufficient analysis of the impact of the case management system on the cost of associated technology infrastructure, such as interfaces with other information technology systems, and consequential business process changes
- there was insufficient analysis of the cost implications for the jurisdictions to implement the case management system.

During the development of the business case, DOJ commissioned an independent advisory company to provide an estimate of system size. This analysis, which is known in the IT industry as a 'function point analysis', measures the number of discrete business requirements in an IT system. This data is then able to be used to help assess the cost and complexity of the system, much as a quantity surveyor helps to cost an engineering project by estimating the number and costs of various components and materials that are required to build the structure.

The function point analysis of ICMS classified it as a **very large-scale project** by industry standards. There was a high degree of uncertainty in the analysis results because—at that point in time—the business requirements were defined at a very high level. The advisory company recommended undertaking a further analysis after the requirements were defined in more detail in order to address uncertainties in costs and risks associated with supplier selection and management.

This further function point analysis was not undertaken by DOJ, as recommended, meaning that the cost estimates in the business case continued to have a high degree of uncertainty.

Given that ICMS is a major IT-driven program to implement change to business processes in a number of jurisdictions, not providing detail in the business case on the nature of the program's impact on affected systems and processes is a significant deficiency.

This meant that costs and risks associated with implementing change were not adequately identified. A Gateway review of the business case recommended that DOJ provide clarity on the nature and extent of business process changes. The business case did not address this, and thus failed to identify, assess and cost the effort required to address the impact of the program on key systems and processes.

The consequence of this oversight is that the jurisdictions did not fully understand the costs of implementing the new case management system.

DOJ has allocated \$1.2 million to change management in the program budget. Outside of this allocation, DOJ expects jurisdictions to fund the necessary changes required within jurisdictions for implementing ICMS from their existing budgets and resources.

DOJ has advised that the implementation of ICMS in the jurisdictions is taking place within the context of a broader change program in the justice system to implement key elements of the Attorney-General's *Justice Statement*. Some 60 significant initiatives are underway which impact all aspects of court operations and form the most extensive change program ever undertaken in Victoria's courts.

It includes initiatives to reform criminal law and procedure, simplify and modernise the law, protect rights, improve access to online interactive information for victims of crime, address disadvantage, promote appropriate dispute resolution, reform civil justice by reducing costs and delays and create an engaged and unified court system, including the development of a consolidated court act.

ICMS is seen to be crucial to the successful delivery of many of these parallel reform and change initiatives.

5.3.3 Benefits

The business case articulated the following benefits from implementing ICMS:

- reduced workload for justice and courts staff
- lower cost for justice related services
- cost-neutral support for enhanced IT services
- improved quality and availability of information for reporting and operational decision making
- increased system flexibility and configurability
- increased support for policy initiatives.

The business case outlined a benefits management plan, which is a plan showing how the investment is expected to result in business benefits and how it would be measured.

Figure 5D provides a summary of savings expected from ICMS.

Figure 5D
ICMS savings projection

Source of savings	Savings projected over 10 years (\$ million)
Administrative staff	10.6
Information technology operations	39.3
Total	49.9

Source: Victorian Auditor-General's Office, based on Department of Justice data.

Another benefit expected by DOJ is an increase in the number of cases handled by the courts, by freeing up between 900 to 1 000 trial days per annum across all jurisdictions.

ICMS was among the first IT programs in government to develop a benefits management plan.

The methodology for this type of plan has matured over time, and accordingly the original ICMS benefits management plan would now improve in the following areas:

- lack of some baseline data—against which benefits are to be measured. Without the baseline data, claims of performance improvement are difficult to substantiate. DOJ is currently seeking to obtain this data.
- lack of appropriate benefits measurement intervals—i.e., how often the benefits are to be measured over the life of the service being delivered. Measurements at periodic intervals allow corrective actions to be taken to address issues that may be preventing full realisation of benefits.
- lack of specific measures for some broadly defined benefits—making it difficult to demonstrate the level of achievements against objectives.

Importantly, realisation of most of the benefits associated with the ICMS program is contingent on the successful rollout of the case management system.

DOJ believes that JOIN and Smart Courts projects are starting to deliver some benefits. For example, online resources on JOIN have saved the judicial users many hours of legal research time. DOJ is in the process of collecting the relevant benefits measurement data.

5.3.4 Assumptions and constraints

Clear statements of assumptions and constraints in the business case play an important role in understanding and managing risk. This is because the business case is essentially a hypothesis about the conditions necessary for the program's success.

The ICMS business case gave a proper overview of the assumptions and constraints about the case workload factors in the justice system. The volume of cases to be handled by the ICMS was based on an assessment of workload factors. The business case also documented the program's legal and regulatory environment, as well as financial rates and contingencies.

The business case had gaps in defining the assumptions and constraints, which provide clarity to the relationship between ICMS and its implementation and technology environment. This is significant, as ICMS will substantially change the judiciary's case management and will therefore affect a number of systems, processes and personnel.

For example, there was very little detail on the performance constraints of any existing and planned technology infrastructure, either within the jurisdictions or DOJ, which would affect ICMS.

5.3.5 Risks

The business case outlined a number of strategic risks and their corresponding risk management approach.

The risks included:

- stakeholder management
- scope management
- demand management
- availability of key personnel
- change management
- project implementation.

Risk management approaches included:

- use of an industry standard project management methodology (PRINCE2)
- a stakeholder communications plan
- temporary allocation of key personnel from jurisdictions into the program management team
- use of robust procurement and contract management strategies.

The risk analysis did not address the key findings of the function point analysis, which classified the ICMS program as a very large-scale project by industry standards and highlighted specific risks related to uncertainty in system definition, system costs and supplier management.

The level of risk analysis required—in the context of ICMS being an IT driven change management program—was not comprehensive because there was a lack of robust discussion on assumptions, constraints, and critical dependencies.

5.4 Procurement approach for ICMS

In adopting the approach to ICMS procurement, DOJ sought to apply lessons learned from other major projects in courts and the justice sector in Victoria and other states.

Key features of this approach were:

- to engage contractors experienced in major government procurements
- the engagement of an independent probity auditor
- the appointment of a firm of specialist IT lawyers from the Government Legal Services Panel to assist with the contract.

The procurement followed the governance steps outlined by the Victorian Government's procurement policy framework and DOJ's procurement guidelines. Appropriate approvals were sought, and sign-offs given, for each key decision.

5.4.1 Procurement strategy

Supplier engagement model

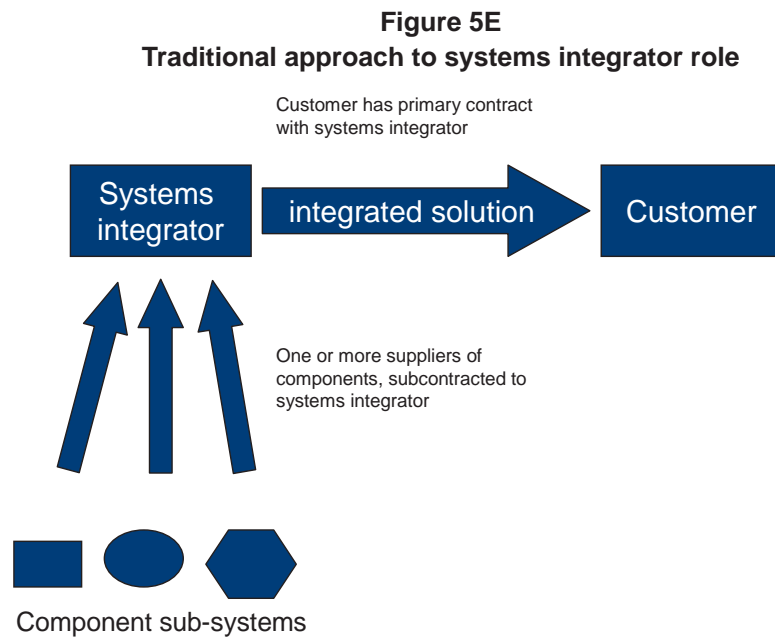
The ICMS program had four procurement components, two of which directly related to implementation of the case management system and accounted for most of the program costs.

These two components involved the two main supplier roles of:

- systems integrator
- case management system supplier.

A systems integrator specialises in bringing together the constituent components of a system into a whole and ensures that they work together.

Figure 5E illustrates a traditional method of using a systems integrator.



Source: Victorian Auditor-General's Office.

The benefit of the customer having a prime contractual relationship with the systems integrator is that there is a single entity accountable to the customer for the delivery of the overall solution. If the customer departs from this model, then there is a higher risk of uncertainty about accountabilities, roles and responsibilities. The customer must then manage multiple supplier contracts and ensure that all sub-contractors meet agreed schedules within budget targets.

DOJ, seeking to act on lessons learned from previous projects, decided not to pursue the traditional approach of using a systems integrator. DOJ chose instead to contract separately with the systems integrator and the supplier of the case management system, maintaining independence between them.

With this approach, DOJ sought greater control and visibility over the scope and deliverables, as well as more flexibility in the contracts for risk sharing.

This strategy exposed the ICMS program to risks in vendor management since:

- the systems integrator did not have a contractual relationship with the supplier of the case management system, thereby limiting its ability to directly control progress against deliverables

- DOJ inherited a high degree of supplier coordination responsibility, requiring specialist resources, which DOJ did not plan for. These resources are necessary for active monitoring and coordination of supplier deliverables at the task level with appropriate tracking and reporting mechanisms.

DOJ did not adequately mitigate the risks from its chosen procurement model, as recommended by one of the Gateway reviews, especially in terms of having the required skills and resources needed for increased vendor management responsibility.

Also, DOJ's procurement strategy did not document an analysis of the choices between different supplier engagement models and associated benefits and risks.

Notwithstanding the above critique, DOJ has introduced strong measures to the contractual model to manage payment for deliverables, including:

- staged payment commitments with the suppliers for the full period of the funded ICMS program
- making each payment stage have as one of its deliverables a fixed or capped fee for the next stage, together with the description of associated activities and deliverables
- payments for services provided under an 'Earned Value' regime—which is an industry practice for rewarding services based on a measurement of actual deliverables
- retention of a portion of the systems integrator fee pending successful delivery of a working solution
- the contractual agreement with the case management system supplier including substantial liability for the provision of deliverables, by requiring a supplier performance guarantee.

Solution fit to business requirements

As described earlier, a 'function point analysis' estimates the total effort and cost of an IT system and provides an objective measure for validating supplier claims of solution fit to requirements.

This measure gives a rational estimate of the following critical evaluation parameters:

- The level of **customisation**—how much the proposed solution would have to change to meet the customer's requirements.
- The level of **configuration**—how much the proposed solution would have to be prepared to operate in the customer environment.

As DOJ did not conduct the detailed 'function point analysis' during procurement, it did not have an objective measure of the functional fit of any proposed solution for supplier evaluation.

5.4.2 Procurement outcome

The program observed all normal procurement and probity processes, but there were serious gaps in the decision-making analysis that exposed it to delivery and cost risks.

During the course of the procurement life cycle, the program deviated from the original premise presented in the original business case.

The ICMS business case was built on the assumption that the case management system solution was to be implemented by enhancing the existing CLMS solution in the County Court. Key parameters of the business case such as costs, milestones, risks, and dependencies were built around this assumption. The CLMS system was central to the business case theme of a cost-effective, lower-risk solution.

Procurement process for the case management system

DOJ's procurement process included a publicly advertised expression of interest, followed by a public tender, designed to provide competitive tension for cost-effective procurement. However, during this process DOJ found that its preferred option of implementing CLMS was not viable due to gaps between DOJ's technical expectations and supplier capabilities. Therefore, DOJ had to vary its requirements before conducting the tender.

During the procurement process, representatives of the ICMS program visited New South Wales and Western Australia, who were in the process of deploying courts case management systems. The objective was to view the systems and to get information on implementation experience of these states.

Case management system supplier selection

Following the tender, DOJ selected a case management system, which was characterised in the original business case, as 'Option 4: Adapt a new product'. The original business case had discarded this option due to higher costs and technical risk.

The selected solution was undergoing a major platform evolution as the underlying technology of the system was being changed in the United States. Under this circumstance, the delivery risks were higher as the solution was yet to be 'proven up' to meet the DOJ requirements.

There were other flaws in the procurement approach:

- The full cost of delivery of the solution was not objectively estimated to ascertain the level of customisation versus configuration required and the associated effort and cost. This exposed the program to scope creep, estimation variances and lack of control of total cost of ownership.

- The due diligence process lacked a robust assessment of the case management system supplier's ability to service its commitments to its overall portfolio of clients. This assessment was particularly important in the context of the supplier undertaking a significant evolution of its case management system technology platform in the United States.
- Because the Gateway review of the tender process was conducted at the early stages of the program, the review only examined DOJ's conduct of the tender process, not their analysis that led to the tender decision. High reliance was placed by DOJ on the outcome of the Gateway review. The exclusion of the tender decision from the scope of the review resulted in a significant risk exposure to the program in terms of the outcome of the supplier selection.

The procurement process for the case management system took around nine months longer than originally expected. It also resulted in significantly higher procurement costs (\$2.6 million) than originally estimated by DOJ (\$505 000).

The actual approach adopted by the ICMS program as a result of its procurement decision, differed fundamentally from the funding proposal. Yet the business case was not revised to understand and validate the full implications of this change in approach.

5.5 Conclusion on planning for ICMS

The business case presented to government provided a sound argument based on service need and policy drivers for the investment in ICMS.

Planning for ICMS was not robust as critical uncertainties in system costs, supplier analysis, and a lack of a thorough re-assessment of original planning assumptions exposed the program to a high degree of delivery and cost risk.

The procurement strategy for ICMS was not well defined. A non-traditional approach to managing the relationship with multiple suppliers was adopted, and the risks inherent in following this approach were not properly planned for.

DOJ introduced strong measures to the contractual model to manage payment for deliverables, incorporating staged payment commitments, payment based on measured value of deliverables, and risk-sharing mechanisms.

Although there were shortcomings in DOJ's analysis of procurement strategy, it followed the appropriate procurement and probity processes. The program's procurement approach was also ratified by the program steering committee, the Accredited Purchasing Unit, and DOJ's senior management.

The ICMS program procured a case management system solution that was different to the recommended solution in DOJ's funding proposal. The selected solution involved a high degree of delivery risk. The business case was not updated and reviewed holistically to test and validate the viability of the program based on the changed approach.

Recommendations

For large IT transformation programs, DOJ should:

- 5.1 incorporate a thorough assessment of the supplier market, as per DTF's business case development guidelines, in its funding proposals
 - 5.2 incorporate the use of system sizing analysis tools used in the IT industry as an objective basis for assessing:
 - the fit of candidate solutions to business requirements
 - system development costs.
-

6 Program control

At a glance

Findings

- The Department of Justice (DOJ) has put significant effort into maintaining momentum of the Integrated Courts Management System (ICMS) program despite challenges associated with supplier delivery and performance and it has effectively dealt with contractual issues arising from the sale of supplier assets.
- Monitoring of supplier deliverables has been less than robust.
- The response to emerging risks during the early stages of the ICMS program was not effective.
- Maintenance of documents required for effective control of the ICMS program has been less than adequate.
- The importance of stakeholder management has been recognised and significant effort has gone into engaging stakeholders.

Recommendations

For the ICMS program, DOJ should:

- put in place a mechanism for monitoring and reporting the status of supplier deliverables using the 'effort remaining' measure and clearly allocate associated responsibilities between DOJ and the systems integrator
- appropriately document and maintain the business case and program management plan as per the project and program management methodology adopted by the ICMS program
- clearly report the progress of the ICMS program against the costs and schedule reference data outlined in the business case.

For large IT transformation programs, DOJ should:

- review its approach to supplier coordination in the ICMS program to guide the development of future procurement strategies
- undertake periodic reviews by external organisations specialising in IT program health-checks
- align its risk management approach with the Department of Treasury's (DTF) recently launched project risk management guideline
- incorporate independent representatives with specialist expertise into governance bodies.

6.1 Introduction

An appropriate system of program control allows progress to be measured against stated objectives and allows corrective action to be taken if a program deviates from the original plan.

Effective program control includes:

- setting up an appropriate program organisation and engaging the right stakeholders
- maintaining and communicating the right information in a timely manner to aid decision making
- monitoring and reviewing the viability of the program at key stages
- anticipating risks to prevent or address them.

The Department of Justice (DOJ) effectively organised the structure of the Integrated Courts Management System (ICMS) program and robustly engaged its stakeholders. It has addressed significant challenges encountered by the ICMS program due to supplier issues. However, DOJ's supplier coordination ability was less than robust and there were observed gaps in the risk management approach.

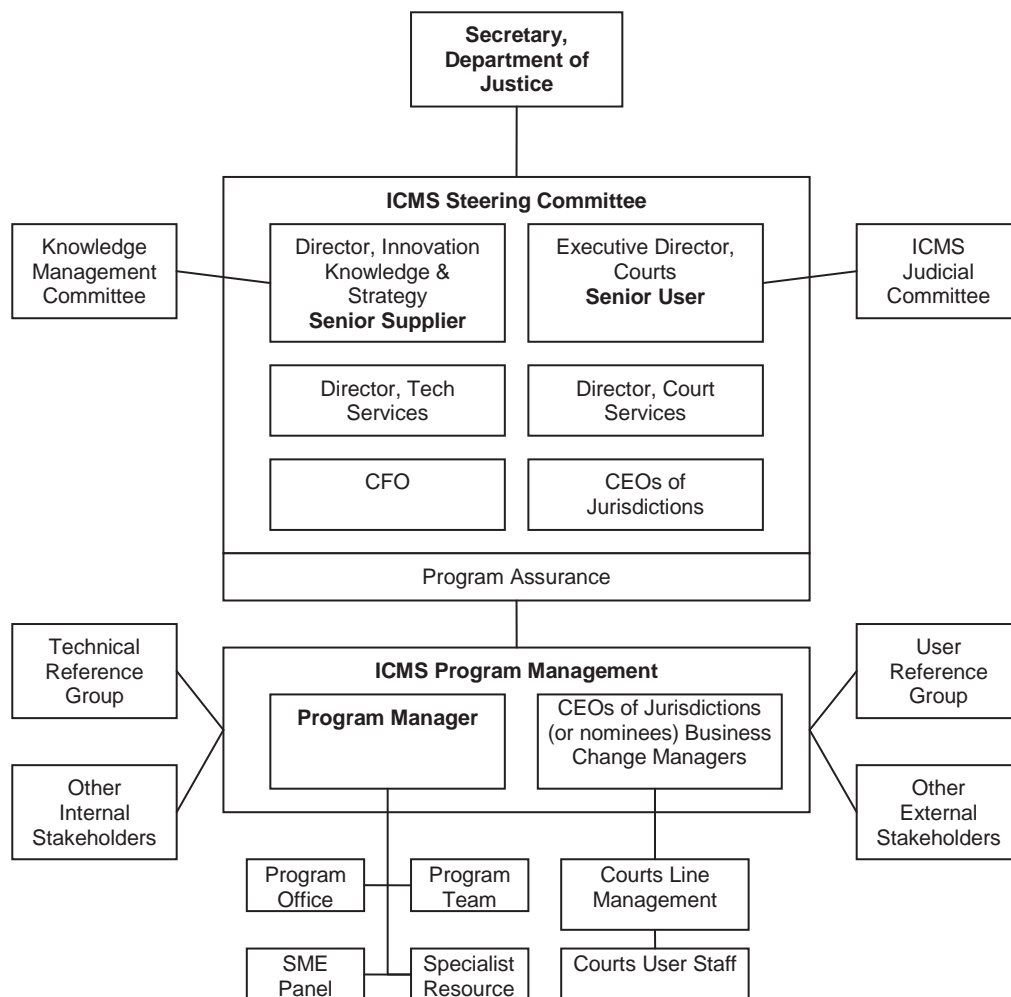
6.2 ICMS program organisation

In September 2005, DOJ developed a detailed organisational structure of the ICMS program, including individual roles and responsibilities and terms of reference.

The ICMS organisation and governance structure reflected industry best practice in project and program management.

Figure 6A provides an overview of the organisation structure of the ICMS program.

Figure 6A
ICMS Program organisation structure



Source: Department of Justice.

Governance of ICMS

The steering committee comprises executives and senior managers who provide guidance on the execution of the ICMS program and make investment decisions.

The Executive Director of Courts chairs the committee and its members include:

- representatives from all jurisdictions, through their Chief Executive Officers
- representatives from relevant business areas within DOJ (such as technology and finance)
- a representative of the systems integrator (with no voting rights).

The ICMS Judicial Committee represents the interests of officials responsible for dispensing justice at a policy and strategy level. It includes the judicial heads of the Supreme Court, County Court, Magistrates' Court, and the Victorian Civil and Administrative Tribunal.

The program manager reports to the steering committee and is responsible for the day-to-day management of the ICMS program.

A number of project boards exist to oversee individual projects within the ICMS program. It is important in large programs such as ICMS that such boards are established at an appropriate stage, however, a project board for addressing technology issues was established well after the main procurement decisions were made. This put extra responsibility on the steering committee to oversee and critically assess the technically complex procurement process. The other project boards were established at an appropriate stage.

One of the Gateway reviews recommended that DOJ should have an independent person with technical expertise in the governance model of the ICMS program so that specialist advice could be available to help address challenges associated with large IT programs. However, DOJ chose not to include independent representation in the governance model for the ICMS program.

Stakeholder involvement in ICMS

DOJ has drawn staff resources from various jurisdictions to help define the business requirements and is aware of the need to be up-to-date with changes in key processes in individual courts and tribunals that occur over time. Some of these process changes may also result from broader policy changes in the justice system.

These changes could affect ICMS, given the program development duration and extended implementation phases. To address this, program management has appointed relevant staff from the jurisdictions into the ICMS program team.

The steering committee has identified communication with stakeholders as an important element of ICMS program governance since the start. Stakeholder expectations are consistent and aligned with the objectives of the ICMS program. They have also emphasised that the program has actively sought their input, and has encouraged clear and frequent communication.

6.3 Clarity of information for program control

The two most important documents for effective program control are:

- the business case
- a program management plan.

The business case gives the terms of reference for program control. It outlines assumptions such as the program's scope, costs, milestones, risks, and dependencies and how it will create value. The program management plan is an interpretation of the business case and forms a master plan defining the key program phases, decision points and progress criteria. It serves as a tool for program management to test the assumptions of the business case throughout the program life.

Regular review and update of the business case and program management plan is fundamental to the program and project management methodology (PRINCE2) that the ICMS program has adopted. This is so that cohesive and up to date information on the program's continued viability is available for decision-making on an ongoing basis.

6.3.1 Maintenance of the business case

The ICMS program started in July 2005 based on a business case developed in June 2005.

In February 2009, the ICMS business case was updated to reflect the status of the ICMS program at the time.

However, developments at various stages in the ICMS program warranted a more immediate update and review of the business case because these developments pointed to:

- uncertainty about the market's ability to deliver the proposed case management system in the original business case
- uncertainty in the costs and schedule for the ICMS program.

In March 2006 the ICMS program received funding approval from the government. DOJ then evaluated the market response to a publicly advertised request for information from case management system suppliers. The responses indicated that the solution recommended in the original business case was not feasible.

This market feedback should have been a prompt for DOJ to re-test its assumptions, and revise the business case to reflect the program cost and schedule based on the revised approach. However, DOJ proceeded to tender without any such revision. The steering committee and DOJ senior management were briefed on the reasons for undertaking the tender.

In September 2006, DOJ selected a different case management system solution to the system proposed in the original business case. The original business case was not updated at this time. A review of the business case's financial analysis was commissioned by the original program manager and undertaken by an external advisory company. This review indicated that the alternative case management system choice had minimal effect on expected costs.

However, this review was inadequate:

- The impact analysis of the selected systems on the operating environment was not detailed, hence the cost associated with the impact of the system on the operational infrastructure was not known.
- An analysis of the cost and time spent on the prolonged procurement process and its impact on the remaining cost and program schedule was not undertaken.
- A function point analysis was not undertaken. This would have provided an objective measure of the size of the system to be built and corresponding estimate of development effort and costs.

In June 2007, the program management office became aware of uncertainty in system development and integration costs. It had completed the Model Registry Design phase, which defined the detailed business requirements for the case management system, and it also intended to start system design and development for the next phase of the program.

A review of the business case financial analysis was again undertaken by the same external advisory company, but a number of necessary factors for sound analysis were not considered. These included an analysis of solution fit to requirements, cost and time spent on the program, and their implications on the program's direction. Again, the business case was not updated to reflect the then projected costs, milestones and risks.

Because the ICMS business case was not kept current over a significant period with critically important data, DOJ lacked sufficient information to:

- validate the ongoing viability of the ICMS program
- take preventative action to address uncertainty.

6.3.2 Maintenance of the program management plan

DOJ has been using a program schedule document known as a 'Gantt chart' as a program control document. This document summarises a high-level breakdown of program components and lists a number of activities and associated timelines of the ICMS program. There are detailed project schedule plans, which feed into the summarised program schedule document.

The Gantt charts used by DOJ as the program control document do not exhibit a number of important attributes of a rigorous program management plan detailing the costs, outputs, risks, assumptions, performance targets, monitoring and control activities. For a highly complex transformational program such as ICMS, a program management plan is required to coherently and completely define how the program is going to work.

The program management office produced the first program management plan in January 2009 during the time of this audit. This plan provides a high-level view of the various components of the ICMS program, stakeholder communication plan, schedule and resources.

However, the plan lacks detail in some areas including:

- allocation of program costs
- explanation of the grouping of projects with key outputs and dependencies, including key supplier deliverables
- key activities, such as critical program phases and program checkpoints where a review will take place.

A number of projects within the ICMS program have project definition documents. The quality of planning information in these documents varies significantly, with some showing limited data on project costs.

The gaps in the program management plan mean that for a significant length of the program schedule, particularly during the early stages of the program, a complete view of how the ICMS program is going to work was not available. This has meant that the program management office and the steering committee, have at times lacked important data for effective supervision and control of the program.

6.4 Effectiveness of program monitoring

6.4.1 Independent reviews

DTF has conducted two types of independent review processes for the ICMS program. These were:

- the Gateway Review Process, which offers targeted feedback to a program's 'senior responsible owner' at key decision points in its lifecycle. These decision points review a program's:
 - strategic objectives
 - business case
 - procurement strategy
 - tender decisions
 - readiness for service
 - benefits realisation.
- the Major Project Reporting (now known as Quarterly Asset Investment Reporting) process, which monitors and reports on the progress of major government information technology and other asset projects on a quarterly basis.

To date, four Gateway reviews of the ICMS program have been completed. These reviews have not found any critical and urgent issues with the ICMS program status.

However, the reviewers have made several recommendations about improvements in:

- clarification of the ICMS program's impact on jurisdictions
- the ICMS program's governance practices
- management of vendor risks.

Our analysis of Gateway reviews has highlighted some deficiencies with their execution. Some were too limited in scope, and the review ratings did not reflect the applicable Gateway guidelines for reviewers. However, these reviews did offer key recommendations that could improve the outcomes for the ICMS program.

While DOJ took confidence in the favourable reviews from Gateway, it did not act on some of the key recommendations, nor did it give adequate consideration to the limitations, such as scope, of these reviews.

DTF's major project reporting process, during the early stages of review of the ICMS program, reported that DOJ was planning to update its business case after the conclusion of the procurement process. However, this update did not happen until much later in the ICMS program's schedule.

The major project reporting process has been historically limited by a lack of ability to independently verify information from the projects being reviewed, which was also the case for these reviews of the early stages of the ICMS program.

6.4.2 Program reporting

The program management office reports monthly to the steering committee on the ICMS program status. Reports are also provided to senior management of DOJ.

Reports presented to the steering committee have contained detailed information on the progress of specific projects. These updates include:

- key achievements
- status of current deliverables, including progression measures
- outline of upcoming activities
- outline of key issues and risks
- finance reports with detailed information on costs for individual projects.

The status updates to the steering committee contain much information. While there has been no shortage of data presented in these reports, they have at times lacked critical information for the effective control of the ICMS program. One key flaw has been that they have not consistently tracked progress against the approved business case parameters.

The finance reports show costs against individual components in the ICMS program, but they do not track costs as allocated in the business case. For example, the ICMS business case had a \$5 million contingency fund, but the finance reports record neither the status of the funds nor how much has been spent and where.

As a result, it is difficult to understand the extent of any gap in cost estimations of where the contingency funds have been spent and consequently, it is difficult to assess if the ICMS program is likely to face potential risks to its allocated budget.

6.4.3 Supplier coordination

The procurement approach adopted, whereby DOJ did not have a prime contractual relationship with the systems integrator, has meant that DOJ has had to assume increased responsibility for supervising the tracking of supplier deliverables.

A number of work packages have been defined for suppliers, identifying the primary responsibility and supporting roles.

ICMS program management holds regular progress meetings with suppliers, who provide status reports which form the basis of the discussion. The status reports include tracking of deliverables that are underway and/or due to start.

However, DOJ has lacked an effective supplier-monitoring measure. Suppliers have reported progress of deliverables on a percentage complete and due date basis rather than 'effort remaining' basis.

Reporting based on percentage complete has little bearing on identifying the work or time remaining to complete an activity and hence is a poor measure of progress. Reporting based on 'effort remaining' identifies the labour units (expressed in terms of staff hours, days, weeks, etc.) remaining to complete an activity and is a more effective way of measuring progress and forecasting delays.

Due to the use of an ineffective progress measure, DOJ's monitoring of supplier delivery risks has been less than robust.

Nevertheless, as supplier delays came to light, DOJ put significant effort into engaging with the development and management team of the United States-based supplier to monitor, review and influence the supplier delivery schedule.

6.5 Management of program risks

Successful program management must manage and tolerate uncertainty, complexity and ambiguity. It does this through risk management and issue resolution systems.

For a program, a risk is any uncertain event that, if it occurs, will affect the program's objectives. Issues are unplanned events that have occurred and must be resolved.

Risk management should be a comprehensive process, with appropriate strategies and frameworks to identify, analyse, evaluate, treat and monitor risks that could prevent a department or agency from meeting its aims.

The government has frameworks and guidelines for managing risk. DTF published a comprehensive project risk management guideline in February 2009.

6.5.1 Issue and risk management approach

The ICMS program has risk management policies and guidelines sourced from various bodies including DOJ, Gateway, and a best practice project management methodology.

DOJ monitors and manages risks at both the ICMS program and individual project levels. All risks and issues are recorded in a database and any staff member of the ICMS program can raise risks and issues, with specific people responsible for resolving them.

Risks are also raised and addressed at steering committee meetings or individual project board meetings.

6.5.2 Management of issues

The steering committee and program management office have thoroughly analysed and addressed issues that have materialised. These issues relate to:

- increase in costs due to a change in departmental plans
- supplier delays
- contractual issues arising due to the sale of the software supplier's asset.

The ICMS program relied on a courts data warehouse system which DOJ had planned to cater for a number of other programs and applications. The program management office expected to share the development costs with other users; however, DOJ dropped the project in favour of other priorities. In light of this, the steering committee analysed the risk of not proceeding with the system and was able to negotiate extra funding from within DOJ to proceed.

In April 2008, after the case management system supplier reported significant delays, the steering committee undertook a formal review of the ICMS program. The steering committee looked at several options, and then decided to continue with the ICMS program. DOJ negotiated compensation from the supplier to partially offset the costs arising from the delays.

After the original supplier sold its software business assets, the steering committee reviewed the ICMS program in October 2008 and did due diligence regarding the acquirer. After intensive negotiations, in April 2009, DOJ was able to secure an appropriate contractual arrangement involving the relevant firms.

It is laudable that the steering committee and program management office have been able to maintain the momentum of the ICMS program in the midst of significant uncertainty arising from supplier-related contractual issues.

6.5.3 Management of risks

The approved business case for ICMS identified a number of risks and risk mitigation strategies.

A key risk area was change management. Stakeholders from different jurisdictions had to be involved if the ICMS program was to succeed. DOJ recognised this and put significant effort into building and maintaining these stakeholder relationships.

DOJ is using a progressive rollout strategy to deploy the case management system to the multiple jurisdictions because of the complexity involved in a large-scale rollout. The steering committee and other project boards within the ICMS program have been comprehensively involved in developing the rollout strategy.

While the program had a risk management plan, there have been gaps in addressing key risks. The response to some of the key risk indicators was less than robust, especially in the early stages of the ICMS program.

In particular, DOJ's assessment of some key risks has been less than robust, in relation to:

- the estimation of the size and cost of the case management system
- the ability of the supplier market to deliver the proposed case management
- the viability of the program schedule due to significant delays in procurement.

Several of these risk indicators have translated into issues that have affected the program.

For example, in June 2007, DOJ received advice from an external consultant about significant uncertainties in program costs. The program management office needed to address two elements before it started the case management system design stage:

- a comprehensive assessment of the system's ongoing costs and the cost of associated technical infrastructure
- verifying the significant assumption made by DOJ that the software development cost of the selected case management system would be low.

These uncertainties underlined funding risks to the ICMS program. The steering committee gave approval to the program management office to begin the systems design stage; however, the steering committee did not undertake a full review of uncertainty in cost of the ICMS program.

A Gateway review had also recommended a formal program assessment to be conducted at this stage of the program; however, this was not done. It was not until a draft update of the business case was available in October 2008, that the extent of cost overruns became known to the steering committee.

One of the reasons why critical risks were not identified was that the program management office did not document explicit statements of assumptions. These statements serve as indicators of risk if the assumptions are wrong. It is important to test assumptions at key points in the program to understand and address risks.

The approved business case identified the use of the best practice project and program methodology as a risk control mechanism. However, the lack of an up-to-date program control document—in the form of a business case and a program management plan—hindered DOJ from using these methodologies effectively to control risks.

6.6 Conclusion on program control

DOJ has thoroughly engaged program stakeholders and has designed the ICMS organisation effectively. It has addressed the issues that arose outside of its direct control.

The ICMS program has faced significant challenges due to supplier-related delivery and contractual issues yet it has been able to maintain the program's momentum and secure an appropriate contractual arrangement with the suppliers.

Program control, however, had the following shortcomings:

- monitoring and review of the progress of ICMS against the approved business case was less than adequate
- key documents, including the business case and program management plan, which are required for effective control of a program's direction, were not appropriately maintained.

DOJ assumed an increased responsibility for supplier coordination due to the supplier engagement model it pursued. However, its supplier coordination ability was not robust due to its use of an ineffective delivery monitoring mechanism.

DOJ's risk management approach in the ICMS program has had gaps, particularly in the early stages. It underestimated some key risks which later materialised with adverse effect.

The governance model of the ICMS program would have benefited from including an independent representative with specialist expertise to assist with challenges associated with a major IT-driven transformation program.

Recommendations

For the ICMS program, DOJ should:

- 6.1 put in place a mechanism for monitoring and reporting the status of supplier deliverables using the 'effort remaining' measure and clearly allocate associated responsibilities between DOJ and the Systems Integrator
- 6.2 appropriately document and maintain the business case and program management plan as per the project and program management methodology adopted by the ICMS program
- 6.3 clearly report the progress of the ICMS program against the costs and schedule reference data outlined in the business case.

For large IT transformation programs, DOJ should:

- 6.4 review its approach to supplier coordination in the ICMS program to guide the development of future procurement strategies
- 6.5 undertake periodic reviews by external organisations specialising in IT program health-checks
- 6.6 align its risk management approach with DTF's recently launched project risk management guideline
- 6.7 incorporate independent representatives with specialist expertise into governance bodies.

Auditor-General's reports

Reports tabled during 2008–09

Report title	Date tabled
Managing Complaints Against Ticket Inspectors (2008–09:1)	July 2008
Records Management Checklist: A Tool to Improve Records Management (2008–09:2)	July 2008
Investing Smarter in Public Sector ICT: Turning Principles into Practice (2008–09:3)	July 2008
Private Practice Arrangements in Health Services (2008–09:4)	October 2008
Working with Children Check (2008–09:5)	October 2008
CASES21 (2008–09:6)	October 2008
School Buildings: Planning, Maintenance and Renewal (2008–09:7)	November 2008
Managing Acute Patient Flows (2008–09:8)	November 2008
Biosecurity Incidents: Planning and Risk Management for Livestock Diseases (2008–09:9)	November 2008
Enforcement of Planning Permits (2008-09:10)	November 2008
Auditor-General's Report on the Annual Financial Report of the State of Victoria, 2007–08 (2008–09:11)	November 2008
Local Government: Results of the 2007–08 Audits (2008–09:12)	November 2008
Management of the Multi-Purpose Taxi Program (2008–09:13)	December 2008
Results of Audits for Entities with 30 June 2008 Balance Dates (2008–09:14)	December 2008
Preparedness to Respond to Terrorism Incidents: Essential services and critical infrastructure (2008–09:15)	January 2009
Literacy and Numeracy Achievement (2008–09:16)	February 2009
Administration of the <i>Flora and Fauna Guarantee Act 1988</i> (2008–09:17)	April 2009
Access to Public Hospitals: Measuring Performance (2008–09:18)	April 2009
Management of School Funds (2008–09:19)	May 2009
The New Royal Children's Hospital—a public private partnership (2008–09:20)	May 2009
The Channel Deepening Project (2008–09:21)	May 2009
Results of Audits for Entities with other than 30 June 2008 Balance Dates (2008–09:22)	May 2009

Auditor-General's reports

Reports tabled during 2008–09

Report title	Date tabled
Governance and Fraud Control in Selected Adult Educational Agencies (2008–09:23)	June 2009
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Claims Management by the Victorian WorkCover Authority (2008–09:25)	June 2009

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