

Auditor-General's Report

Performance Audit

Outsourcing Information Technology

in the NSW Public Sector

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Foreword

Over the last decade, governments have increasingly moved to greater involvement with the private sector in delivering services. This can take the form of privatisations, partnerships with the not-for-profit sector or outsourcing core or support services.

Agencies can outsource to lower costs or improve the quality of service. Outsourcing can also allow agencies' management to focus their attention on core business activity.

However outsourcing can also bring its own risks.

Agencies therefore need to be clear as to why they are outsourcing. They need to determine that the benefits will outweigh any disadvantages. And they need to be confident they have the skills and resources to manage outsourcing successfully.

IT – information technology – is one support function that is increasingly being outsourced, both in the public and private sectors.

This report highlights key issues in outsourcing IT and illustrates the ranges of challenges that agencies face.

While this report examined only IT in five agencies, the issues and recommendations apply to all organisations that use outsourcing.

R J Sendt
Auditor-General

October 2002

Executive summary

Executive summary

Outsourcing

Outsourcing is a service provided to an agency by an external service provider. In most cases, prior to outsourcing, the service would have been provided 'in-house' by the agency.

Agencies outsource to achieve a range of goals such as lower costs, long term information technology (IT) arrangements or to improve the quality of service to internal users of information.

The audit

The audit reviewed the way five agencies had outsourced their IT functions. These agencies spent approximately \$25 million in 2001-02 on outsourced IT out of a total IT expenditure of \$194 million.

The agencies reviewed had outsourced IT functions such as payroll, human resources management and management information. In most cases the activities outsourced were not connected with the main business objectives of the agency.

Audit Opinion

Agencies have managed the planning of outsourcing in a competent way. All agencies satisfactorily managed the contractual aspects of outsourcing.

The Audit Office is of the opinion, however, that there is no objective evidence to demonstrate that agencies have achieved their goals in outsourcing IT.

Most agencies had identified the current and expected costs and risks of outsourcing. Agencies were not able to demonstrate that the actual costs of outsourcing matched the expected costs.

Costs of outsourced IT for three agencies have fallen over the last three years, and for one are unchanged. However, few agencies appear to have negotiated pricing structures with service providers that reflect a trend towards lower costs in some IT components.

No agency had developed performance measures that show whether IT outsourcing has improved the efficiency or effectiveness of its IT operations or service quality. One agency has since developed a 'Balanced Scorecard' approach to performance measurement.

Each agency has acted independently in developing its approach to outsourced applications and in negotiations with service providers.

Some agencies emphasised the need for an independent approach to ensure that they can tailor IT applications to their specific needs. However, a ‘whole of government’ approach to outsourcing would be likely to achieve better financial outcomes for the public sector through the combined buying power and negotiating ability of agencies, and better practice through sharing of agency experience.

Audit Findings

Clarity of purpose	<p>Agencies outsourced in the pursuit of specific improvements in costs, service quality or security of service provision. Most agency plans were consistent with agency strategic goals.</p> <p>Agencies had identified the strengths and weaknesses of existing IT services and most had considered alternatives to outsourcing.</p>
Accountability	<p>Accountability between agencies and service providers has been well defined in agency plans and contractual agreements.</p>
Consultation with information users	<p>Most agencies had recognised in their plans the importance of communicating with staff to obtain their co-operation, involvement, acceptance and perceptions of IT performance to ensure success. Most had consulted with information users at the planning stage to identify their needs.</p> <p>However, the effectiveness of ongoing consultation varied.</p> <p>Information users in all agencies reported some dissatisfaction with responsiveness to issues raised. Most agencies did not provide adequate feedback to users.</p>
Performance indicators	<p>Most agencies had documented from the outset the services to be outsourced, and their current and expected costs.</p> <p>All agencies have entered into Service Level Agreements with service providers and receive regular performance reports from service providers. However, most providers only report two measures of IT performance, being the availability of the system and performance of the Help Desk or user support.</p> <p>Most agencies have no performance measurement process that is independent of service provider reports. Only one agency had developed measures to demonstrate improvement in the efficiency or effectiveness of its IT operations.</p>

Managing risks	<p>Most agencies had identified and documented risks arising from the outsourcing of IT and had, to differing degrees, action plans to minimise those risks.</p>
IT costs	<p>The business cases of most agencies included the expected costs to outsource IT. However, no agency was able to demonstrate that actual costs were consistent with costs initially planned or budgeted.</p> <p>In respect of the Department of Education and Training (DET) <i>Electronic Classroom</i> project we experienced considerable difficulty in obtaining documentation in a timely manner that adequately described the components of, and costs associated with the project. As a consequence we were not able to evaluate the project.</p> <p>Most agencies had negotiated contracts which offered only minor cost reductions, despite evidence of a long-term reduction in information processing costs due to improved technology.</p>
IT management and resources	<p>Agencies have recognised the need to retain relevant skills to manage outsourcing. However, some agencies stated that there is often a tendency to underestimate the skills and resources to plan and manage successful outsourcing.</p>
A whole of government approach	<p>Each agency has acted independently in developing its approach to IT outsourcing. In doing so each agency has negotiated with its service providers, even though some agencies have the same service provider.</p> <p>Some agencies emphasised the need for an independent approach to ensure that IT applications are tailored to their specific needs.</p> <p>There is currently no centralised collection of agency experience. Sharing of information depends on the initiative of individual agencies.</p> <p>The implications of such an approach are that opportunities may be foregone for agencies to benefit from their:</p> <ul style="list-style-type: none">▪ collective experience▪ combined buying power when acquiring or customising similar software or IT services.

Recommendations

We recommend that agencies:

- consider the needs of their information users in setting performance standards
- maintain formal processes of consultation with information users to ensure that performance standards reflect business needs
- develop independent measures of performance of efficiency, effectiveness and value for money of IT projects
- conduct longer term reviews of all their IT activities, in-house and outsourced, to ensure that they are taking advantage of current technology and current market prices. Reviews should include benchmarking of costs and performance
- ensure that accountability and standards for performance are clearly expressed, especially where an agency uses multiple service providers
- maintain an appropriate balance of contract management and technical skills.

We recommend that the Government:

- negotiate with service providers, wherever possible, for a “whole of government” approach to ensure that the combined purchasing power of agencies is realised
- share experience and information to improve outsourcing practice.

Response from the Department of Education and Training

I refer to your letter of 2 September 2002 concerning the Audit Office's Report on its Performance Audit on IT Outsourcing in the NSW Public Sector.

The initial focus of the Performance Audit was on DET's IT outsourcing arrangements with the AS400 service provider, IBM-GSA, which provides hardware and related helpdesk services to support the JDE finance system and the HR/Payroll system. The Audit was later extended by The Audit Office to include the Internet Services and Products (ISP) Project and the Bandwidth Project, which are both still in the development phase.

The Department endorses the principle of achieving specific improvements when outsourcing services. Through its ICT Strategic Plan, the Department seeks continuous improvement. The four goals outlined in the ICT Plan represent major opportunities for the Department to use Information and Communications Technologies for the educational benefit of the people of New South Wales. They were developed to:

- *Align ICT activities with the corporate vision and business goals to achieve improved education and training outcomes for students*
- *Achieve business process improvement and re-engineering supported by ICT*
- *Improve information management*
- *Improve governance and management*
- *Support the NSW Government commitments for education and training, the NSW Government IM&T Blueprint and associated policies such as connect.nsw.*

The outsourcing of the AS400 system was part of a wide reform process to achieve operational efficiencies which resulted in recurrent savings of \$17 million per annum. Similarly, the decision to contract out the Internet, web and email services under the umbrella of the ISP Project was designed to achieve the best value for money in an area which is not a core delivery function of the Department of Education and Training.

Educational outcomes and performance indicators for the Bandwidth project have been negotiated with the Office of Information Technology and the NSW Treasury. These indicators form part of the ICT funding agreement and will be used to monitor performance. Similar performance indicators are being negotiated for the ISP Project which is still in development.

In relation to the management of risks associated with IT storage and performance capacity, the operations of the AS400 systems and applications have proven to be successful in consistently meeting service level agreement targets. The Department has not experienced a failure in respect of a major system.

Comments in relation to specific issues raised in the Performance Audit Report are provided below:

Managing Risks

The report indicates that documentation describing the components and costs of the Internet Services and Products (ISP) Project, referred to in the report as the “Electronic Classroom” Project, was not provided in a timely manner.

As indicated above, the initial focus of the Performance Audit was on DET’s IT outsourcing arrangements with the AS400 service provider, IBM-GSA. Subsequently, the scope of the audit was extended by the Audit Office to include the ISP and Bandwidth Projects, both of which are in their development phases.

At all times, the Department has attempted to comply with Audit Office requests for documentation.

Outsourcing in Pursuit of Continuous Improvement

The report indicates that the Department did not have documentation that clearly identified that the outsourcing of IT was in the pursuit of continuous improvement. As indicated earlier, the decision to outsource the AS400 operations was part of a wide departmental reform in the pursuit of continuous improvement, leading to ongoing recurrent savings in excess of \$17 million per annum. The Department’s ICT Strategic Plan demonstrates that the Department pursues continuous improvement in its planning.

The decision to outsource the AS400 operations resulted in staffing reductions; addressed capacity and systems support issues; avoided the replacement and upgrading of hardware; and avoided significant investment in computer operation rooms and hardware in the Department’s State Office.

The Department has monitored quality of service to users through such measures as response times, hours of availability, incidents and integrity of the service. Key Performance Indicators are in place for the AS400 services and are monitored at fortnightly service provider meetings and quarterly user meetings to ensure quality services are maintained. When performance measures are finalised for the ISP Project, similar user group meetings will be introduced to monitor progress.

Inability to locate documentation

The report contains comment on the Department’s inability to locate documentation relating to the planning for the outsourcing of the AS400 computers. Documents detailing all aspects of the business case leading to the decision to outsource IT services in respect of the AS400 were prepared in 1995. Despite repeated efforts to locate this documentation, the papers could not be retrieved. It would have been preferable for the documentation to have been retained on file.

Lack of Key Performance Indicators

The Audit Report comments on the lack of evidence of key performance indicators for the ISP Project.

As indicated earlier, educational outcomes and performance indicators for the Bandwidth project have been negotiated with The Department of Information Technology and Management (DITM) and the NSW Treasury. Prescriptive performance indicators form part of the funding agreement for the project and will be used to monitor performance. A similar set of indicators is currently being negotiated for the ISP project.

**Documentation
Regarding Bandwidth
Improvements**

The report states that The Audit Office was unable to determine from documentation provided by the Department, whether bandwidth improvements were included in the original cost estimates for the ISP Project.

Documentation was provided to support advice that bandwidth improvements were included in the ISP project at a cost of \$30 million.

The NSW Treasury has confirmed that the Department had clearly indicated that an integral component of the ISP Project proposal was additional bandwidth requirements. Funding has subsequently been provided for additional bandwidth in schools and TAFE colleges, including that component relating to the ISP Project.

**Risk of Operating
AS400 Machines to
Capacity**

The report includes comment on the departmental material provided in relation to computer capacity. The Department has successfully managed its computer capacity as part of an overall risk minimisation strategy. This is demonstrated by the absence of any major systems failure during the life of the contract. The contracted service provider has had to demonstrate that all possible efficiency strategies have been explored before any planned hardware upgrade can take place. Through this management process, costs have continued to be driven down throughout the life of the contract.

Thank you for the opportunity of providing comment on the Audit Office's Report on its Performance Audit on IT Outsourcing in the NSW Public Sector.

(signed)

*Jan McClelland
A/DIRECTOR-GENERAL OF EDUCATION AND TRAINING
A/MANAGING DIRECTOR OF TAFE NSW*

Dated: 2 October 2002

Introduction

Background to the audit

... outsourcing is not new

Outsourcing has long been one of the ways in which the public sector does business:

The public sector has never been wholly self-sufficient in its provision of services to the public ...

However over the last decade or so, both in Australia and overseas, the concept of the role of government has undergone substantial change. Increasingly questions have been asked as to what constitutes 'core government' and what functions do governments need to carry out themselves, as opposed to funding or regulating¹.

During the 1990s, the Commonwealth and State Governments emphasised the need to improve efficiency and effectiveness of service delivery. In NSW, this was summarised in a guideline issued by the Council on the Cost of Government in 1997:

... Managers are required to:

- know the costs of activities and the levels of performance being achieved;
- benchmark performance and processes against the best performing comparable organisations and alternative providers, where practicable;
- drive internal performance improvement to improve efficiency and realise potential gains;
- collaborate with other agencies in common service delivery arrangements; and
- consider inviting competitive bids for the provision of suitable activities where internal efforts have not realised substantial improvements in efficiency or quality of service.

Under previous service competition policies, there was a tendency to focus on lower value activities where the benefits were marginal. Whilst all activities are subject to the new guidelines, managers should give priority to pursuing best value for money in higher cost activities where the benefits are likely to be substantial².

¹ *Outsourcing Risk: Risk Management in the New Contestable Environment*; paper presented by the NSW Auditor-General to the 6th Biennial Conference of the Australasian Council of Public Accounts Committees (ACPAC), Canberra, 4-6 February 2001

² *Service Competition Guidelines*; Premier's Department Memorandum 97-24, 26 September 1997

IT has been widely outsourced in the public sector ...

Internationally, public and private sector organisations have followed similar improvement regimes, and many have focussed on information technology as one of the business activities which can be readily and beneficially outsourced.

A 1999 study of Australian organisations, with over 230 respondents, revealed that:

- just over half of respondents spent 20% or more of their IT budget on outsourcing, and
- around 50% of the Australian IT outsourcing market comprised public sector entities³.

The reasons most frequently given in the study for outsourcing IT were:

- access to better/more skills/expertise
- unable to provide services internally
- concentration on core business
- better match of resource supply to demand
- access to better/more technology
- better use of in-house personnel⁴.

The same study showed the reasons why some Australian organisations had chosen not to outsource their IT:

- market price higher than internal cost
- risk of loss of control
- risk of loss of organisational knowledge
- cost/complexity of outsourcing process
- risk of loss of internal expertise
- belief that it is too strategic⁵.

... with mixed results

Outsourcing of IT has not always been successful. Some major information technology outsourcing projects have failed to meet initial expectations:

... implementation of the Initiative ... is now expected to be completed ... some two years after the initial date; and to cost nearly three times as much as was originally budgeted ... the savings realisable by agencies from outsourcing, as quantified in each tender evaluation, were overstated⁶.

³ *Information Technology Outsourcing Practices in Australia*; Sara Cullen (Deloitte Touche Tohmatsu), Dr Leslie Willcocks (University of Oxford) and Dr Peter Seddon (University of Melbourne), 2001, p3

⁴ *ibid*, p13

⁵ *ibid*, p15

⁶ *Implementation of Whole of Government Information Technology and Infrastructure Consolidation and Outsourcing Initiative*; Australian National Audit Office Report No 9, September 2000, p13

Similarly, the Auditor General for Western Australia reported:

The review was not able to determine conclusively whether the contracts have led to improved service level performance ... Only two of the six agencies examined collected independent data to monitor service level performance. Only one of these ... collected independent performance data both before and after the contract commenced to enable an assessment to be made of whether service levels have improved.

The cost savings estimated in the business cases prepared at the time the contracts were negotiated were ... 10.7 per cent of expenditure on the services for each of the contracts ... None of the agencies examined can demonstrate whether the expected savings have been achieved⁷.

To encourage and facilitate better practice, a considerable body of literature on the outsourcing of IT has been developed. In NSW, extensive Guidelines and Memoranda on outsourcing of IT have been developed by the Office of Information Technology (OIT).

An issue separate from outsourcing, but related to it, is the need to achieve easier communication between government departments and with the public by developing a more integrated, service oriented approach to information technology. In NSW, the Government had earlier criticised the decentralised approach to IT of agencies:

This fragmented and uncoordinated approach across government organisations is expensive, resource intensive, counter productive and a poor use of taxpayer funds. Public sector organisations which continue with such an approach will find it difficult to successfully meet the demands of the next century. The full potential of information management and technology to improve government functions will only be realised by a coordinated public sector wide approach to its management⁸.

⁷ *First Byte: Consortium IT Contracting in the Western Australia Public Sector*, Western Australia Auditor General, Report No 12, December 2001, p6, 7

⁸ *Information Management & Technology Blueprint for NSW: A Well-connected Future*; published on behalf of the NSW Government by the Department of Public Works and Services, Government Information Management Division, February 1997, p4, 5

Its *Information Management & Technology Blueprint* emphasised the need for cross-agency participation:

Senior management must ensure that all government agencies adopt the strategies in the Government's Blueprint and cooperate with each other to achieve the Government's objectives.

The Department of Public Works and Services will provide advice on how this cooperative approach will work, based on current cross-agency projects and information management and technology guidelines⁹.

Audit criteria

The objectives, scope and focus of the audit are shown in Appendix 2, as are the agencies reviewed.

The audit criteria are presented under three main headings, which describe three phases by which the outsourcing of IT can be considered:

- the strategic framework for outsourcing
- developing a clear business case
- management of the contract and the service provider.

Strategic framework

The following criteria are used to examine the strategic framework of the agencies' outsourcing decisions.

- a decision to outsource should:
 - be consistent with the strategic direction of the agency
 - contribute to the achievement of the overall objectives of the organisation
 - be integrated with other plans, structures, and decision making processes.
- outsourcing strategies should be designed to achieve specific improvements, such as service quality or 'value for money'
- an agency needs to maintain those management skills consistent with the ongoing needs of the business. These skills extend to managing contracts for outsourcing
- in any decision to outsource, an agency should take steps to protect the security and integrity of its assets including its information and its intellectual property.

⁹ *ibid*, p12

Business case

The criteria below are used to examine the clarity of the business case to document and support the agencies' outsourcing decisions.

- the business case should identify the extent to which outsourcing is expected to deliver a measurable improvement in performance and costs
- an agency should manage the risks associated with a decision to outsource. The business case should identify those risks and the strategies to manage and report those risks in accordance with better practice.

Management of service provision

The following criteria are used to examine the agencies' approach to managing the outsourced activities.

- for effective contract management, agencies should introduce a regime of regular communication between the client (as purchaser) and the service provider and other stakeholders
- there should be a culture of measuring the performance of the service provider to ensure that performance in key result areas is monitored against targets, reported to appropriate management levels, and significant variances addressed
- agencies should facilitate and encourage innovative approaches in service from service providers
- an agency should establish appropriate accountability arrangements, set clear levels of delegated authority, and ensure high compliance with procedures in dealing with service providers.

Structure of this report

In the following section of this report, the performance of the agencies in outsourcing their IT has been evaluated against the audit criteria.

The literature reviewed contained much information relevant to better practice in outsourcing of IT.

Many of the Memoranda and Guidelines issued by the Premier's Department and OIT represent mandatory requirements. Selections from these sources have been summarised in Appendix 1 to provide a resource for agency management wishing to review their own IT outsourcing processes and achievements.

Agency performance in outsourcing IT

The strategic framework for outsourcing

Principle	A decision to outsource should: <ul style="list-style-type: none">▪ be consistent with the strategic direction of the agency▪ contribute to the achievement of the overall objectives of the organisation▪ be integrated with other plans, structures, and decision making processes.
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Audit observations

Agencies had outsourced services such as payroll, human resources and management information. The Department of Corrective Services (DCS) and Macquarie Generation had also outsourced IT applications that could be considered to support core functions¹⁰.

While there is a ‘whole of government’ approach to the acquisition of software under the Government Selected Application Systems (GSAS), each agency has ‘trodden its own path’ in outsourcing those activities which were reviewed as part of this audit. As a result there is no evidence of:

- a co-ordinated effort between agencies, or by a central agency, to achieve a better outcome for the public sector.
For example, the combined buying power of agencies is a powerful negotiating tool when outsourcing, particularly when a common service provider is involved
- any formal sharing of information between agencies.

The majority of agencies had developed IT Strategic Plans or other relevant documents. The more thorough of these clearly linked IT strategies to corporate strategies and identified the contribution of IT to business imperatives.

The objectives shown in one Information and Communications Technology (ICT) plan are to:

- assess and align ICT with the Department’s business needs and directions through the formulation of appropriate strategies
- satisfy key Departmental stakeholders’ objectives for ICT directions
- ensure conformity with whole of government ICT policy and initiatives
- satisfy NSW government guidelines for ICT Strategic Plans¹¹.

¹⁰ DCS’s OIMS, and Macquarie Generation’s Market Trading System

¹¹ *Information, Communications and Technology (ICT) Strategic Plan 2001-2002*; Department of Corrective Services, June 2001

Rail Infrastructure Corporation's (RIC) Proposed Programme Strategy included a section on Commercial Justification of its key IT plans, which included outsourcing of service provision.

Two agencies advised that it was sometimes difficult to differentiate between business information decisions and IT decisions. These agencies asserted that the technology aspects of projects often dominated decision-making and that business or management information aspects received less attention.

Principle	Outsourcing strategies should be designed to achieve specific improvements, such as service quality or 'value for money'.
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Audit observations

Consistent with their strategic goals, all agencies, other than DET, had documentation which clearly identified that outsourcing of IT was in the pursuit of continuous improvement.

Planning documents of four agencies had documented the services to be outsourced, and current and expected costs. These agencies had identified strengths and weaknesses of existing IT service provision and had considered future development directions.

However, no agency had developed performance indicators or benchmarks prior to outsourcing to monitor the quality of service to information users, or of 'value for money'.

Rail Infrastructure Corporation (RIC)

RIC's plans recognised the need to develop performance indicators as the basis for performance agreements and guarantees, and to assess improvements.

RIC has undertaken periodical reviews of its outsourcing arrangements to ensure they continue to meet business needs and add value. This strategy has resulted in a decision to change or modify earlier decisions to outsource.

Department of Juvenile Justice (DJJ)

DJJ's *IT&T Strategic Plan* established benchmarks and timeframes for the achievement of goals. DJJ had established a *Benefits Realisation Register* to demonstrate efficiencies expected from changes to current practice.

In May 1998, DJJ was allocated funding in the state budget to implement its IT&T business cases. Funding related to corporate services IT was the subject of a sector wide freeze. Subsequently the department sought and was granted an exemption from the freeze ... The exemption was conditional on the department adopting the same corporate services system as that being implemented by the Department of Corrective Services¹² ...

¹² *Business Case Projects Status Report*; DJJ, November 1998

DJJ acquired the same corporate services software as DCS, and in 1998 outsourced its facilities management to the same service provider as DCS. There is no suggestion that the system did not meet the needs of DJJ. However:

... it is important to point out that [using the same system as DCS] is more expensive than the solution sought in the business case relating to corporate services¹³.

Some agencies investigated the alternatives to outsourcing and some had quantified the alternatives. One agency stated, in deciding to outsource, that:

**Macquarie
Generation**

... full in-sourcing of all IT services has been estimated to have an annual cost similar to that proposed by [the preferred tenderer]. It is therefore the view of the evaluation team that there is not sufficient benefit to justify the increased risk and complexity associated with the in-sourcing of all of Macquarie Generation's IT¹⁴.

**Department of
Education and
Training (DET)**

DET has outsourced two IT applications:

- the corporate computing requirements of the former Department of School Education, and,
- more recently its *Electronic Classroom* project.

AS400 computers

The Department of School Education, prior to 1996, met its processing requirements for finance, personnel and payroll applications using its own AS400 computers. In 1996 the AS400 computers were outsourced as part of a reform process.

**Audit
observations**

DET has not been able to locate any of its planning documents relating to the outsourcing of its AS400 computers.

DET management advises that the 1995 business case could not be located and has probably been disposed of on the understanding that it was not necessary to retain documents of this age, despite the fact that the AS400 system is still in use. DET provided instead a retrospective cost analysis.

¹³ *ibid*

¹⁴ Macquarie Generation IT services contract proposal; Board submission paper, 24 January 2002

Electronic Classroom

The second DET IT outsourcing project is its *Electronic Classroom*, also referred to on DET's website as the Internet Services and Products (ISP) project.

DET defined the purpose of the project as:

- free email services for 765,000 schools students, 124,000 TAFE students, 50,000 schools teachers and TAFE teachers
- remote access services from home to DET Intranet and Internet services
- web hosting for schools
- filtered Internet access and 24 hour by 7 day per week helpdesk services¹⁵.

The proposal also stated that:

... the Department is seeking an outsourced solution ... for the supply of internet and web services¹⁶.

The cost of the project was estimated to be \$101 million over four years¹⁷.

DET has advised the Audit Office that the cost included approximately \$30 million for improvements to the bandwidth for the project.

In December 2001 DET stated that:

[The existing] level of bandwidth is inadequate for current usage, with schools and colleges complaining of lack of speed and its negative impact on teaching and learning. Already 800 schools have saturated links¹⁸.

Audit observations

In general terms, DET has identified various benefits to be derived from the project. It is generally accepted that the project will enhance the computer literacy skills of students. In addition, the project will also provide other benefits, such as facilitating communication between teachers, students and schools.

However, other than budgeted costs and some deadlines, no key performance indicators are evident in the documentation for the project. The proposal does not provide for *Outcome Performance Indicators*¹⁹.

¹⁵ *Email for Students and Teachers*; ITB Recurrent Expenditure Proposal, November 2000, p6

¹⁶ *ibid*, p6

¹⁷ *ibid*, p8

¹⁸ *Broadband (Bandwidth) Plan for Education and Training (January 2002-June 2005)*; DET Information Technology Directorate, December 2001

¹⁹ *Email for Students and Teachers*, op cit

DET has advised that it is currently developing performance indicators for the project in conjunction with OIT and Treasury. As such, it is not possible to evaluate the project against pre-determined performance criteria.

We are also of the view that the records relating to the initial project, as provided to us, were maintained in a less than desirable manner. The Audit Office experienced considerable difficulty in obtaining documentation in a timely manner that adequately described the project, its components and its costs.

DET has advised the Audit Office that the bandwidth improvements were included in the project at a cost of \$30m. However, no documentation was provided to support this advice.

Nor was the Audit Office able to determine, from the documentation provided by DET, whether these bandwidth improvements were included in the original cost estimate.

Principle	An agency needs to maintain those management skills consistent with the ongoing needs of the business. These skills extend to managing contracts for outsourcing.
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Audit observations

The majority of the agencies demonstrated the ability to implement and manage the ongoing relationship with the service provider.

Agencies need to translate the needs of their business units into IT terms. Service providers need to demonstrate IT capabilities to meet the business needs of agencies. Some agencies have, and others plan to develop, the skills to provide this interface between business users and IT service providers.

Macquarie Generation

The 1996 review of Macquarie Generation recommended that the agency:

... establish an appropriate level of internal IT capability...[for] effective management of a relationship with an IT service provider.

DJJ

DJJ's plans noted:

- its skill limitations and the need to 'tap into' the skills of contractors
- the need to maintain appropriately skilled staff to ensure it achieved the planned benefits.

They included a staffing structure as part of DJJ's outsourced IT strategy.

Despite changes in personnel, DJJ's IT management believes that it has been able to retain the skills and knowledge to assess alternatives and decide what was required to meet business needs and to implement change.

Principle	In any decision to outsource, an agency should take steps to protect the security and integrity of its assets including its information and its intellectual property.
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Audit observations

Confidentiality and integrity of agency data is a priority for all agencies, and no breaches or compromises were observed during the audit.

Agreements with service providers address intellectual property and other rights, some in general terms, and some specific to the circumstances.

DCS licenses computer software for the management of offenders. Under the terms of the licence the intellectual property remains vested with the owner of the software, and any modifications or enhancements undertaken at DCS's request are incorporated into the software for sale or distribution to other users.

DCS in return has access, at no cost, to any enhancements or modifications commissioned by other users.

By contrast, RIC's contract with its external service provider provides that all intellectual property rights derived from RIC's existing property or created in performing the services will vest in RIC.

Developing a clear business case for outsourcing

Principle	The business case should identify the extent to which outsourcing is expected to deliver a measurable improvement in performance and costs.
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Audit observations

The business cases of most agencies document those IT activities to be outsourced, related baseline and proposed costs and expected savings.

Agencies' strategic planning documents generally demonstrated links between a decision to outsource and the corporate strategy of the agency.

Some agencies prepared Tender Evaluation Criteria which identify what was expected in terms of technical capability, contract terms, financial arrangements and long term agency needs.

IT performance

No agency had developed performance indicators to:

- measure whether there had been any improvement to the efficiency and effectiveness of IT operations, or
- the quality of service to information users because of outsourcing, or
- demonstrate the extent to which IT capabilities and performance supported achievement of agency objectives.

However, research did not reveal any significantly better practice in the public or private sectors which agencies could emulate.

IT costs

Over the last three years the costs of outsourcing:

- have decreased in three agencies
- remained the same in another agency
- increased in the remaining agency.

Agencies have not provided information to determine whether the current costs of outsourcing are in line with the initial forecasts of outsourced costs.

Agencies' total IT costs have increased by \$24 million (14%) over the last three financial years. Costs of outsourced IT have increased by \$15 million (140%) over the same period. Most of this increase is due to DET expenditure on its *Electronic Classroom* project.

In all cases, cost of IT activities outsourced represent less than half of agencies' total recurrent IT expenditure.

... IT costs are declining

The long term decline in cost of computing power and the implications for IT have been well documented²⁰.

One private sector organisation interviewed for comparison purposes had negotiated cost reductions with its service provider of between eight and ten per cent per annum.

Yet few agencies had an expectation that their costs would decline because of technological improvements. Few agencies had negotiated pricing structures with service providers to reflect this trend.

Macquarie Generation's external consultant in 1996 compared its existing costs to industry benchmarks. This identified opportunities for Macquarie Generation to seek cost reductions when outsourcing.

Managing the cost of outsourcing

Agencies did not routinely collect the costs of managing the IT contract and the relationship with the service provider.

At the request of the Audit Office, agencies provided estimates of those costs. The costs ranged between three and seven per cent of total outsourced IT costs; in one case the cost was as high as 17%.

Costs reported in one UK and US study²¹ for the same function ranged between four and eight per cent of total outsourced costs. In Australian organisations studied these costs were most commonly less than three per cent.

Several agencies observed that planning, implementing and managing outsourced IT demanded considerable management time and skill.

They cautioned that outsourcing should not be expected to reduce these in-house costs.

²⁰ See 'Moore's Law' in Appendix 1.2

²¹ *Information Technology Outsourcing Practices in Australia*; op cit, p36

Principle	An agency should manage the risks associated with a decision to outsource. The business case should identify those risks and the strategies to manage and report those risks in accordance with better practice.
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Audit observations

Planning documents provided by four agencies:

- demonstrated the ability to develop a business case to support a decision to outsource
- identified and documented risks associated with a decision to outsource and
- had, to differing degrees, strategies in place to minimise those risks.

When planning to outsource, some agencies used specialist consultants (with, for example, IT or legal skills) to assist in the assessment of risk.

DET

Material provided by DET suggests that, unlike the other agencies reviewed, it has reached computer capacity saturation point a number of times²². DET has upgraded the capacity of its AS400s on a number of occasions, including its contract renegotiations in 2000.

DET's service provider advised in December 2001 that the disc space utilisation of the AS400 computers was exceeding guidelines, with disc capacity upgrades required as soon as possible (and "urgently required" for one of the four units).

DET has advised that this demonstrates its cost effective management of the AS400 computers, that is DET invests in additional capacity only when absolutely necessary. The success of its strategy is indicated by the fact that the AS400 system has never failed in its critical applications, which include the teachers' fortnightly payroll.

²² *Feasibility Study into the Rationalisation of Corporate Services Applications*; DET Corporate Applications Directorate, December 2001, p96, and *AS400 Upgrade Project Proposal and Plan*, August 1999, p12

However, DET's Corporate Services Application Rationalisation Project (CSARP) report notes that:

... There is no long term capacity planning process associated with the management of the AS400 system, and there is no facility to archive data²³ ...

... The AS400 system does not meet DET's current business requirements for best practice personnel processes²⁴ ... the technical conditions of the application architecture is poor ... The architecture of the systems remains complex, outdated and severely handicapped in delivering an effective enterprise application integration solution for DET²⁵.

Against this background, DET's strategy of operating the AS400s to their capacity limitations may expose it to some risk.

DJJ

DJJ's User Group meeting minutes list issues and problems raised by user representatives according to priority. It was observed that some high priority items have been outstanding for more than a year. However, DJJ subsequently initiated structural changes, including additional resources in IM&T for business support, and maintains that substantial progress has been made since.

RIC

RIC's *Proposed Programme Strategy* details its process, timetable and constraints, such as Y2K compliance deadlines. RIC proposed to develop and document:

... key elements of [its] IT&T strategy ... to guide tenderers on [RIC's] most likely future requirements and to provide selected supplier(s) ... with a basis for planning and delivery of future information technology services ... without this ... [RIC] could pay a premium to cover the supplier's risk exposure ...

Principle

For effective contract management, agencies should introduce a regime of regular communication between the client (as purchaser) and the service provider and other stakeholders.

Audit observations

As agencies had outsourced mainly corporate functions, consultation was confined to in-house users. Only DCS provides information to certain external agencies.

Some agencies, in their outsourcing plans, had documented the importance of communicating with staff in order to obtain their co-operation, involvement and acceptance. All agencies had consulted with users to identify their needs.

²³ *Feasibility Study into the Rationalisation of Corporate Services Applications*; op cit, p106

²⁴ *ibid*, p107

²⁵ *ibid*, p96

Only two of the agencies, however, appear to have sustained the emphasis on user involvement following implementation of their outsourced IT applications:

- many information users were not clear as to who is accountable in their agency for IT performance
- users in all agencies reported at least some dissatisfaction in the responsiveness of their agency and/or the service provider to operational difficulties
- only two agencies have a formal means of understanding user needs and perceptions of IT performance.

DJJ

DJJ's consultation and communication includes fortnightly meetings with its service provider and regular IT Users' Committee meetings. Despite the meetings with service providers, some technical problems still appear to take a long time to resolve.

Not all User Group representatives regularly attend their meetings. Some User Committees have *Terms of Reference* and clear reporting relationships and accountabilities, while others do not.

**Macquarie
Generation**

Macquarie Generation monitors user satisfaction to evaluate the performance of its service provider.

DCS

DCS provides information to users in certain other agencies. Those external users were satisfied that the information they were receiving met their needs but some were uncertain of the process to provide feedback or request improvements.

One external user had concerns about who within the agency had access to the potentially sensitive information. There does not appear to be a process by which DCS and external agencies agree on who will have access to DCS information and how the information on agreed users will be kept up to date.

Management of contracts and service providers

Principle	There should be a culture of measuring the performance of the service provider to ensure that performance in key result areas is monitored against targets, reported to appropriate management levels, and significant variances addressed.
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Audit observations

All agencies receive regular reports from service providers.

Some monthly reports provided to agencies contain data on inputs and volume rather than outputs and achievements.

There was not sufficient evidence to indicate that all agencies use these reports to manage the performance of service providers against agreed standards.

Most agencies appear not to have a performance measurement process that is independent of regular reports from service providers.

Service providers

Service providers generally report only system availability or downtime and Help Desk responsiveness.

However, users in all agencies considered that other performance indicators (such as response times) are important, yet these are rarely reported. Only DET's monthly reports contain information on system response times.

Most reports by service providers contain similar performance criteria and information. This suggests that the reports are not customised to suit the individual needs of agencies but represent the service providers' 'standard' client reports.

Independent advice to Macquarie Generation had recommended improvements to performance measures and regular market comparisons in order to benchmark the performance of its service providers. Macquarie Generation has since developed a suite of independent measures of its IT performance.

Macquarie Generation has also developed a Balanced Scorecard for monitoring the performance of its service provider, and this includes user satisfaction measures.

Principle	Agencies should facilitate and encourage innovative approaches in service from service providers.
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Audit observations

The majority of agencies have penalties or incentives to encourage service providers to meet or better-agreed targets.

However, no agency has demonstrated an effective mechanism to encourage service providers to seek and share innovations and improvements.

RIC requires its service provider to advise it of any technological improvements that could result in lower cost of service provision. To this end, RIC has entered into an Alliance Agreement with its provider.

Principle	An agency should establish accountability arrangements, set clear levels of delegated authority, and ensure high compliance with procedures in dealing with service providers.
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Audit observations

The Service Level Agreements, or similar documents, identify in a reasonably clear way the accountability arrangements between the agency and individual service providers.

However, some users raised examples of lack of clear accountability when multiple service providers were involved.

For example, where an agency owns the software but the hardware and communications are owned by two separate service providers, it can be difficult to identify responsibility for lapses in agreed performance standards.

Within agencies, users are not always clear on who is accountable for specific aspects of performance. For example, some users are not clear what calls should be directed to the Help Desk, and often contact internal IT staff direct.

Some internal IT management report that some Help Desk staff do not know to whom to direct calls. Some systems managers report that IT changes are made in their area of responsibility without being informed.

Few IT users can differentiate between in-house and outsourced IT service provision. However, the agency is ultimately accountable for all IT performance, whether provided in-house or outsourced.

A whole of government approach to outsourcing

Maximising whole of government benefits

The Government has emphasised a whole of government approach to information technology and electronic services:

The NSW Government has adopted an enterprise view of government where its goals transcend those of individual agencies. In future ... service delivery will appear seamless. People will be able to deal with government as a single entity instead of a fragmented collection of diverse organisations. They will not need to know how the public sector operates internally to obtain a service²⁶ ...

... All NSW government agencies are to ensure that their electronic services are compatible with the whole of government electronic services delivery platform developed and coordinated by the Department of Information Technology and Management²⁷.

Office of Information Technology

OIT has negotiated centralised Government Network Service (GNS) contracts with telecommunications providers to assist agencies in complying with the IM&T strategies.

It has also developed the GSAS guideline, which approves suppliers and software packages for corporate applications.

OIT has an extensive menu of Guidelines and Memoranda to assist agencies in implementing the IM&T *Blueprint*.

Audit observations

There was no evidence of any formal sharing of information between agencies to achieve continuous improvement and best practice in their IT outsourcing activities.

Across the public sector, agencies share the same service providers and use similar software or applications. Many require similar enhancement or customisation of software to meet common requirements. Some agencies expressed concern that there is nothing to prevent service providers from charging different clients for the costs of the same or similar customisation of software.

One agency developing a major project has received strong support from OIT and Treasury over several years, and values this ongoing relationship.

²⁶ *Information Management & Technology Blueprint for NSW: A Well-connected Future*; op cit, p9

²⁷ *Meeting the Government's Information and Communications Technology Strategic Agenda*; Premier's Department Memorandum 2000 - 12, 29 May 2000

However, managers in other agencies believed that their small size and inexperience (compared to the service providers) left them at a disadvantage in negotiation. Some stated that their agencies would have benefited from coordinated negotiation with service providers, which could have ensured better value for money.

Across the public sector, the absence of such support means that opportunities may be foregone to benefit from the:

- collective experience of agencies, and
- combined buying power of agencies when acquiring or customising similar software.

At the very least, some agencies saw advantages in the development of benchmarks across the public sector to permit performance and cost comparisons, and to provide indicative standards for agencies when they negotiate. Such benchmarking could only be achieved by a coordinated approach.

One agency argued that a whole of government approach was not wholly appropriate for State-owned corporations.

Appendices

Appendix 1.1 Better practice: the strategic framework for outsourcing

A decision to outsource is in reality a strategic decision:

... the outsourcing process, in conjunction with the risk management process, should be initiated at the strategic level ... Where outsourcing is undertaken without adequate strategic planning, the number of risks that are not managed appropriately is likely to be considerable²⁸.

Aligning government and IT strategies

OIT has also commented on the strategic nature of IT outsourcing and its interrelationship with other high-level business functions:

Contracting-out should not be seen as a technology cure but as an option for part of the long term business strategy ... It is critical to recognise that the focus changes from managing resources to managing service delivery through contracts ... Contracting-out projects usually involve a degree of Business Process Re-engineering, Change Management, Project Management and Total Quality Management, with each discipline drawn on as required. In particular, contracting-out is often conducted in conjunction with restructuring and reorganisation initiatives²⁹.

Information or technology decisions?

The Government's *Information Management and Technology Blueprint* discusses the need for an integrated approach to business information decisions and IT decisions:

... in the past chief executives and business managers have often not fully understood the role IM&T can play in pursuing business objectives ... so they must develop an understanding of how IM&T can improve the way government does business, and ensure their agencies successfully integrate IM&T with Government outcomes ... [they must] introduce management structures which support the integration of IM&T with Government outcomes³⁰ ...

Information and communications technology does not, of itself, deliver business or government benefits. The benefits come only from changes in work practices and reform of business processes³¹.

²⁸ *Guidelines for Managing Risk in Outsourcing utilizing the AS/NZS 4360 process*; SAA/NZS HB 240:2000, Standards Australia International, 2000, p 5

²⁹ *Contracting Out Guideline*; Office of Information Technology, September 1997

³⁰ *Information Management & Technology Blueprint for NSW: A Well-connected Future*; op cit, p18

³¹ *Business Case Development Guideline*; Office of Information Technology <http://www.oit.nsw.gov.au/pages/4.3.4.Business-Case-Development.htm>, 6 August 2001

‘Core business’ Outsourcing allows agency resources to be redirected from non-strategic tasks to ‘core business’:

... outsourcing is not abrogating responsibility, it is leveraging outside capabilities, enabling organisations to leverage the unique skills and resources of the service provider. It provides access to skills and intellectual capital otherwise unavailable³².

Normally, the service provider is expected to deliver to the client a quantifiable improvement in the form of cost reductions or improvement in quality of service.

Planning to outsource

There should be a sound and documented rationale to:

- outsource
- retain a service in-house
- seek other means of improvement, for example, through sharing services.

One source recommends a step by step strategic process:

- evaluate the links between your business requirements, corporate structure and culture and IT requirements
- establish your objectives, critical success factors, and key performance indicators
- take a baseline inventory of your current operations
- identify the strengths and weaknesses of your current operations
- determine the volumes, tasks, and service levels you should expect (whether from an in-house operation or through an outsourcer)
- develop the criteria for lowering overall costs or creating value
- plan the best way forward to achieve the key goals³³.

³² *Managing Outsourcing Capability Statement*; Business Catalyst International, seminar presentation August 2001

³³ *Sourcing Service Line: Decision Making*; Compass Publishing BV <http://www.compassmc.com/overview/sourcing.htm>, 2002

... outsourcing is one of several ways to improve

Outsourcing is only one of a range of strategies available to improve efficiency and effectiveness of service delivery. While the NSW Council on the Cost of Government Service Competition guidelines states that ‘first and foremost, the onus is on managers to drive performance’, the guideline demonstrates other improvement tools:

- know the costs of activities and the levels of performance being achieved
- benchmark performance and processes against the best performing comparable organisations and alternative providers, where practicable
- drive internal performance improvement to improve efficiency and realise potential gains
- collaborate with other agencies in common service delivery arrangements
- consider inviting competitive bids for the provision of suitable activities where internal efforts have not realised substantial improvements in efficiency or quality of service³⁴.

One reviewer asserted that outsourcing does not provide:

- the only answer. There are almost always alternative approaches to achieving the same ends although they may be less effective.
- an easy answer. Outsourcing IT infrastructure in particular involves a transfer of operational responsibility for an increasingly key business resource. Failure to adequately address all the issues, and there are many, has the capability to seriously damage the business.
- a ‘Quick Fix’ to a problem... The idea that outsourcing is a quick fix to a non-performing function needs to be dispelled. Outsourcing a mess produces an outsourced mess even more difficult and expensive to rectify³⁵.

³⁴ *Service Competition Guidelines*; op cit

³⁵ *Review of the Whole of Government Information Technology Outsourcing Initiative* (‘Humphry Review’), Richard Humphry AO, December 2000, p64

Planning for success

OIT provides advice for different aspects of the outsourcing process, such as:

- project management³⁶
- quality management³⁷
- risk management,³⁸ and
- change management³⁹.

It also identifies the characteristics of successful projects:

- a clearly defined business objective ...
- a partnership approach between the business unit that requests the project and IM&T staff ...
- a project sponsor with ... accountability ...
- the support of senior management ...
- regular progress reporting ...
- consistent progress reporting format ...
- a proven project management methodology ...
- benefits realisation⁴⁰ ...

Change management

Managing the transition to an external IT service provider covers more than just new technology and methods to support a new business process:

New technology is just one dimension of the change associated with a project. Organisations will normally manage the implementation of new technology and processes well, but often lack a disciplined and effective approach to the management of the impact of those changes on the organisation and its people⁴¹.

The objectives of [the implementation and transition] phase are to finalise the contract and ensure a smooth transition to the contracting-out arrangements ...

A comprehensive contract needs to be in place to clearly define each party's roles, responsibilities and liabilities⁴² ...

³⁶ *Project Management Guideline*; Office of Information Technology
<http://www.oit.nsw.gov.au/pages/4.3.21.Project-Management.htm>

³⁷ *Quality Management Guideline*; Office of Information Technology
<http://www.oit.nsw.gov.au/pdf/4.3.23.Quality-Management.pdf>

³⁸ *Risk Management Guideline*; Office of Information Technology
<http://www.oit.nsw.gov.au/pdf/4.3.24.Risk-Management.pdf>

³⁹ *Change Management Guideline*; Office of Information Technology
<http://www.oit.nsw.gov.au/pages/4.3.19.Management-of-Change.htm>

⁴⁰ *Project Management Guideline*; Office of Information Technology, 29 June 2001

⁴¹ *Change Management Guideline*; op cit

⁴² *Contracting Out Guideline*; op cit

The pitfalls

Common pitfalls

When contracting-out it is important to avoid some of the common pitfalls. A planned and controlled process will help avoid pitfalls.

General pitfalls

- lack of probity
- viewing the process as a series of sequential tasks rather than overlapping tasks
- viewing contracting-out solely as a cost reduction exercise rather than an alternative, more effective way to conduct business
- failing to acknowledge that significant service upgrade requirements are contained within the contracting-out process
- contracting-out the status quo before considering re-engineering opportunities
- failing to plan and adhere to a robust methodology
- failing to address the human resources issues and communicate effectively to staff
- not involving independent sources of advice where and when appropriate
- unrealistic expectations of the benefits to be obtained from contracting-out.

Preparation pitfalls

- lack of competition for the service provision
- under-estimation of the time and effort required to document the current situation
- focusing on contracting-out the wrong functions
- inappropriate or uneconomic bundling of services to be contracted-out⁴³.

⁴³ *Contracting Out Guideline*; op cit

Appendix 1.2 **Better practice: developing a clear business case for outsourcing**

Agencies are required to develop business cases to justify capital investment proposals.

OIT has prepared a guideline⁴⁴ which discusses the various issues agencies should consider when preparing a business case.

In developing a business case it is important to consider a range of related issues including:

- the case for change
- project purpose and scope
- project objectives, planned outcomes & benefits, contribution to agency corporate/business goals and strategies and impact on agency service delivery
- project plans, resources, costs and timing
- management approaches and mechanisms
- responsibilities and accountabilities for project management, project outcomes, change management and benefits realisation, culminating in a Benefits Realisation Register
- alternatives considered
- conformity with policies and strategies
- cost/benefit analysis and economic appraisal, including proposed funding arrangements⁴⁵.

The single most important issue for the agency in the initiation of the acquisition process is to establish and document the functional requirements. The focus of these requirements is generally on the user needs rather than an overly prescriptive technical bias. This will allow for both innovative and imaginative responses by the potential suppliers - particularly in the Expression of Interest or Request for Proposal step⁴⁶.

⁴⁴ *Business Case Development Guideline*; op cit

⁴⁵ *ibid*

⁴⁶ *Acquisition of Information Management and Technology Guideline*; Office of Information Technology, September 1996

Managing risks

Risk has been defined as:

the chance of something happening that will have an impact upon objectives⁴⁷.

The early identification of risks reduces the cost and complexity of managing them.

The business case should state all identified risks, their associated costs (where quantifiable), and the costs of managing those risks⁴⁸.

The risks to which an agency may be exposed include:

- loss of control
- exposure to service provider risks:
 - financial viability
 - loss of commitment to contracting-out
 - staff turnover
 - poor or incomplete implementation
 - low day-to-day quality
- high exit barriers and costs of conversion
- locked into technology for contract duration
- inflexibility to meet changing business requirements
- poor negotiating position due to skill loss and external dependency resulting in:
 - unaware that problems exist
 - contractual obligations are not enforced
 - payment of excessive fees⁴⁹.

Risk management must address issues such as failure of the service provider or technology, changes in cost and capability over time, and the agency's contingency plans should the service provider fail or lose key staff.

One way to manage risk is to transfer it to the external service provider, in full or in part, particularly where the provider has control over the risk. In doing so:

... It is important to maintain the balance between responsibility for a risk and the ability to control that risk. Risks can be transferred unfairly if organisations are not mindful of the rights and responsibilities of clients, contractors and other stakeholders. Risk transfer does not reduce the level of risk to individual entities. Where risks are transferred inappropriately, risks may be increased⁵⁰.

⁴⁷ *Guidelines for Managing Risk in Outsourcing utilizing the AS/NZS 4360 process*; op cit

⁴⁸ *Risk Management Guideline*; op cit

⁴⁹ *Contracting Out Guideline*; op cit

⁵⁰ *Guidelines for Managing Risk in Outsourcing utilizing the AS/NZS 4360 process*; op cit, p36

A service provider will generally require a financial incentive for such a strategy⁵¹.

Specialist risk management advice can be helpful, and appropriate legal advice should be sought for all major projects to ensure the agency is legally protected in case of future disagreements⁵².

Maintaining capability

A specific risk is the retention of appropriate IT expertise within the agency to manage all aspects of IT, before, during and after outsourcing:

- a core element of managing risk is to ensure that the project team has the right mix of skills and experience. In addition, the project manager must ensure that knowledge of the project is shared amongst the project team to avoid disruption to the project if a key individual is no longer available
- smaller agencies may not have the skills and experience to manage risk effectively or have the resources to obtain these skills from an external source. Senior management must address this potentially significant project risk, and appropriate levels of assistance and guidance may be available from other agencies (particularly the central agencies)⁵³.

Although utilising different skill sets, managing outsourced IT has been found to require similar time and effort to managing internal IT:

Widespread beliefs that executives can reduce their focus on functions that have been outsourced are not solid ... Executives report that they spend as much time and effort managing outsource vendors as they did when the operation was in their own agency ... 62 per cent of executives we interviewed count continuing, concerted executive attention to leading the relationship throughout the contract as a critical success factor for outsourcing⁵⁴.

⁵¹ *Risk Management Guideline*; op cit

⁵² *Acquisition of Information Management and Technology Guideline*; op cit

⁵³ *Risk Management Guideline*; op cit, p6,7

⁵⁴ *Outsourcing in Government: The Path to Transformation*; Thomas J Healy and Jane C Linder, Accenture Government Executive Series, February 2002, p16

Understanding costs

Generally, cost savings are a major factor in a decision to outsource. However, OIT has criticised the quality of IT cost information:

Existing IM&T cost allocations typically:

- are inaccurate;
- are incomplete, not covering all services throughout the agency; and
- require substantial reworking⁵⁵.

Analysis of costs should:

... include the full cost of contracting-out, not just the fee charged by the contractor. The full cost may include the transition to service provider, conversion costs, project management, quality assurance, legal fees and the operation of the re-engineered internal infrastructure⁵⁶.

The resources and associated costs to manage an external service provider should also be considered. However, few estimates are available and these vary widely. The results of a survey of over 200 organisations in Australia revealed that:

... the majority spent less than 3 per cent [of their outsourced IT budget] on contract management.

At the upper end of the scale, around 14 per cent of organisations said they were spending in excess of 10 per cent of their IT outsourcing budgets on contract management.

About one quarter of the respondents to this question were unable to estimate how much they were spending on contract management⁵⁷.

Establishing baseline costs

It is essential to identify baseline costs before the contract commences:

... the agencies examined had failed to implement systems for monitoring the full cost of services provided under the contracts. While direct payments to the contractor can be identified, little if any information has been maintained on transition costs and on other agency management costs.

Consequently, agencies cannot demonstrate whether they are achieving the cost savings that were expected to occur with the contracts⁵⁸.

⁵⁵ *Contracting Out Guideline*; op cit, p6

⁵⁶ *ibid*

⁵⁷ *Information Technology Outsourcing Practices in Australia*; op cit, p36

⁵⁸ *First Byte: Consortium IT Contracting in the Western Australia Public Sector*; op cit, p27

Some agencies suggested three ways to establish a consistent cost basis when seeking proposals from potential service providers. An agency can:

- reveal its current or baseline IT costs for tenderers to use as a starting point
- require all tenderers to develop their pricing from a zero base, with no information on the agency's current costs
- either re-engineer IT prior to outsourcing, or obtain expert independent advice or benchmarking to determine optimal IT costs.

The risk of the first approach is that if the agency's current or baseline costs are high because of, for example, 'out of date' technology, then a service provider is more likely to submit a non-competitive quote:

... nearly all [of the organisations in the sample] had initially approached outsourcing by providing the supplier with their costs. The supplier simply undercut these existing costs to show the 'savings' that an outsourcing agreement would provide. Subsequent ... studies revealed these savings to be little more than a slight reduction in a premium the organisation had grown accustomed to paying⁵⁹.

The second approach probably offers the most competitive bidding process but is high cost to the:

- agency in the resources dedicated to providing bid information, and in responding to tenderers' queries
- service provider in preparing the bid.

The third approach requires a high once-off investment by an agency but would yield a theoretical best practice cost and identify specific areas for IT cost and performance improvement.

⁵⁹ *Outsourcing: Ensuring a Competitive Service Supply*; Compass International White Papers, no date

Irrespective of the benefits to be derived from outsourcing, some significant IT cost components are declining over the long term:

Moore's Law (named after Gordon Moore, a founder of Intel), which says that the processing power of microchips doubles every 18 months, has a corollary: the cost of computing is dropping by nearly 25 per cent per year ... In 1978, the price of Intel's 8086 was 1.2 cents per transistor, and \$480 per million instructions per second (MIPS). By 1985, the 386 cost 0.11 cents per transistor and \$50 per MIPS. Ten years later, the Pentium Pro's introductory price amounted to 0.02 cents per transistor, and \$4 per MIPS.

And the prices are expected to continue to fall⁶⁰.

Negotiation skills

Private sector parties negotiating contracts with government often have a great deal of experience in complex contract negotiations as part of their normal business operations. Public sector bodies generally do not have staff with the same degree of experience⁶¹.

Agencies could be disadvantaged in negotiations with private sector entities both on technical grounds and on negotiating ability and experience:

The outsourcing vendor team is likely to have previously negotiated anywhere from 5 to 20 similar contracts. As the client organisation, meanwhile, you may be going through a large-scale negotiation process for the first time ... the outsourcer's negotiating team typically brings five or six experienced individuals to the table, each of whom has a specific area of focus and expertise. If you can't match the outsourcer's resources or experience, then the outsourcer can usually better address its key concerns⁶².

⁶⁰ *Computing Costs Are Plummeting*; The Progressive Policy Institute Technology, Innovation, and New Economy Project http://www.neweconomyindex.org/section1_page12.html, Washington DC 20003

⁶¹ *Outsourcing Risk: Risk Management in the New Contestable Environment*; op cit

⁶² *What Goes Around Comes Around – and Other Life Lessons of Outsourcing: A Client's Guide to Negotiating Contracts*; Stuart Harris, Compass International White Paper, no date

Intellectual property and security

It is also important to identify any intangible assets such as intellectual property and goodwill when deciding to outsource⁶³.

If an agency contributes to the development of the service provider's software, then appropriate contractual arrangements need to protect the creative effort of the agency.

It is also essential that outsourcing of IT does not impair the agency's ability to protect information that is politically or commercially sensitive. The agency's information assets and the business processes must be preserved in the context of:

- confidentiality - information is accessible only to those authorised to have access
- integrity - accuracy and completeness of information and processing methods are safeguarded
- availability - information and associated assets are accessible by authorised users when required⁶⁴.

IT performance and KPIs

Research identified no high-level key performance indicators that could demonstrate how IT supports achievement of an agency's objectives. However:

... performance reporting is essential for monitoring progress towards achieving aims and objectives. Readers need to be able to identify what has been achieved and judge whether achievements represent value for money⁶⁵.

⁶³ *Contracting Out Guideline*; op cit

⁶⁴ *Information Security Guidelines for NSW Government Agencies*; Office of Information Technology Fact Sheet <http://www.oit.nsw.gov.au/pages/12.2.2.Information-Security.htm>, September 2001

⁶⁵ *Judging Performance from Annual Reports: Review of eight agencies' annual reports*; the Audit Office of NSW, 2000, p21

One authority suggests the following be considered in specifying and managing performance criteria:

- base performance requirements on business outcomes
- include measures that reflect end-user satisfaction as well as technical IT performance
- review and update performance requirements periodically
- require the provider to meet minimum performance in each category of service
- require the provider to achieve escalating performance standards at agreed-upon intervals
- incorporate sufficient flexibility so that minimum acceptable performance can be adjusted as conditions change, as the provider becomes more adept at satisfying customer demands, and as improvement goals are achieved.
- use service level agreements (SLAs) to clearly articulate all aspects of performance including management, processes, and requirements⁶⁶ ...

The pitfalls in developing a business case

Business case pitfalls

- inability to provide full and complete internal costing
- poor construction of cost benchmarks
- inadequate understanding of service levels currently achieved and desirable in the future
- inadequate or excessive service provision specification
- insufficient attention paid to existing contractual arrangements
- failing to clearly delineate between those services to be retained in-house and those to be considered for contracting-out
- failing to properly account for cost of migration.

Tender and selection pitfalls

- focus on delivery and prescriptive requirements rather than output oriented requirements
- failure to define evaluation and selection criteria prior to the issue of request for tender documents
- failing to adhere to relevant government tender guidelines
- inappropriate selection criteria and evaluation mechanism
- inappropriate weighting of selection criteria
- biased or uncommitted staff on the evaluation team⁶⁷.

⁶⁶ *Information Technology: Leading Commercial Practices for Outsourcing of Services*; United States General Accounting Office GAO-02-214, November 2001, p19, 20

⁶⁷ *Contracting Out Guideline*; op cit

Appendix 1.3 **Better practice: management of contracts and service providers**

When an agency outsources, it moves from directly managing resources and technology to managing relationships, specifications, contracts and service.

The skills required to manage an external service provider are different from those required to perform the activity in house. A contract manager requires negotiation and relationship management skills as well as strategic planning expertise.

Good practice

Good outsourcing management practices include:

- capable, practiced leadership with the authority to make sensible decisions
- sound financial systems to tell how they're doing
- having clear goals and objectives to guide decision making
- measures of success with visible progress reporting
- querying users and constituents to find what they want
- measuring their counterparts and competitors and addressing threats and opportunities
- institutionalising accountability within the agency and the arrangement
- benchmarking against exceptional private organisations
- addressing union concerns through established practices and protective legislation that protects workers' rights
- using flexible procurement processes such as expressions of interest to solicit new ideas⁶⁸.

Reading the fine print

Contract templates and contents

Many service providers encourage clients to use their templates for contracts and service level agreements. These templates, while convenient, will normally be supplier-oriented, and need to be carefully reviewed.

Expert help, such as a law firm experienced in outsourcing arrangements, can be used to develop a 'customer-oriented' contract (as opposed to a 'supplier-oriented' one) which is more closely aligned to the business interests of the agency⁶⁹.

⁶⁸ *Outsourcing in Government: The Path to Transformation*; op cit, p16, 17

⁶⁹ *Don't Skip on the Details – Structuring and Documenting the Real Content of Outsourcing Agreements*; Greg Short, Outsourcing Journal, April 2002, p2

Contracting-out arrangements generally involve complex contracts for significant amounts over multiple years. The risk of something going wrong can be very real and appropriate measures will need to be taken to minimise the agency's exposure.

The contract will need to be sufficiently prescriptive so as to protect the agency's interests ... however [it must] still retain the flexibility to change with the agency's business requirements⁷⁰.

However:

... the contract should be a means to developing a relationship over time, and not a literal prescription or set of directives on how things are to be done. Similarly, the contract must be easily modified on a regular basis to accommodate changes in cost, volumes, and service levels⁷¹.

The Government Information Technology Conditions (GITC)⁷² include standard conditions of contract. OIT's guidelines require that these be utilised in all contracts for the acquisition of IM&T products and services⁷³.

Service levels

Service levels are the key to contracting out. Whilst there is no one issue that will determine the success or failure of a contracting out exercise, it is the determination and measurement of service levels that is most important⁷⁴.

When creating service levels:

- obtain a clear understanding of what areas of the business are impacted by the outsourcing relationship
- identify what measurement points will reflect the needs of the business
- understand how the responsibilities are divided between the organisation and the service provider
- create a mechanism for putting substance behind the attainment of service levels
- ... define each area to a level of detail that eliminates as much ambiguity as possible⁷⁵.

⁷⁰ *Contracting Out Guideline*; op cit

⁷¹ *What Goes Around Comes Around – and Other Life Lessons of Outsourcing: A Client's Guide to Negotiating Contracts*; op cit

⁷² *Government Information Technology Conditions* Version 2; 1 December 1994, NSW Department of Public Works and Services, <http://www.supply.dpws.nsw.gov.au/NSW+Supply/Contract+Conditions/>

⁷³ *Acquisition of Information Management and Technology Guideline*; op cit

⁷⁴ *Contracting Out Guideline*; op cit, p6

⁷⁵ *Outsourcer Accountability: Fact or Fiction*; Peter Bendor-Samuel, Everest Group Inc, 1999, p2, 3

A properly-structured service level will provide necessary incentives for the outsourcer to work with you as a team-mate, take responsibility for its performance, and tangibly demonstrate the value it brings to your organisation⁷⁶.

In order to monitor service levels the client agency should participate in the selection of the service provider's staff who will be the main contacts points for the day-to-day interaction⁷⁷.

Regular communication, both formal and informal, between the agency and service provider also assists in sustaining the relationship⁷⁸.

Motivation and innovation

Rewards, incentives and penalties in agreements with service providers act as strong motivators to ensure specific performance targets are met that will support the agency's strategic goals⁷⁹.

They can also motivate innovation in technological developments and encourage the bringing of new ideas to the agency for the benefit of both parties⁸⁰.

User requirements

Plans to outsource IT must reflect the needs of users of the information.

Communication and consultation with all staff and relevant industrial associations should be a high priority throughout the entire process.

This provides staff with the opportunity to offer input to the process, clarify any issues and remain informed about major developments. A change management process should be instituted to address industrial relations, publicity, morale and communications.

⁷⁶ *Outsourcer Accountability: Fact or Fiction*; op cit, p2

⁷⁷ *Governing Attitudes: 12 Best Practices in Managing Outsourcing Relationships*; Kathleen Goolsby, Outsourcing Centre White Paper, May 2002, p14

⁷⁸ *ibid*, p6

⁷⁹ *The Snowball Effect: Characteristics of Outstanding Outsourcing Relationships*; Kathleen Goolsby, Outsourcing Center <http://www.infoserver.com>, White Paper, February 2002, pp 6 and 11

⁸⁰ *Growing beyond Illusions: Guidelines for Changing and Improving Outsourcing Relationships*; Kathleen Goolsby, Outsourcing Centre White Paper; April 2002, p 13

User needs should be identified and incorporated in measures of performance and in performance reporting.

A Steering Committee or similar body, with key representatives from the client and service provider, is one way to oversight the operational and strategic aspects of outsourcing.

Performance measurement and monitoring

The agency is responsible

Outsourcing does not necessarily transfer the governance, accountability, or the risks associated with the outsourced activity. The manager responsible for the outcomes of that activity retains accountability for the performance of the activity, and the management of the risks associated with it. In addition, new risks emerge with outsourcing which in turn require management attention⁸¹.

The objective of performance reporting is to obtain a measure of the service provider's performance under the contract. Performance assessments during the course of a contract help both the agency and the service provider to reach a common understanding of the expectations of both parties, identify areas of superior performance and any areas that need improvement. Performance reports assist in the assessment of service providers for pre-qualification, selective tender lists, pre-registration, tender response evaluation and in the event of termination for unsatisfactory performance under a contract⁸².

Performance measurement and monitoring mechanisms need to be agreed before contract signing ... Successful monitoring and performance measurement requires:

- service levels to be clearly expressed
- availability of usage and service logs
- an 'open book' policy by the vendor
- the process to be contractually defined
- a clearly documented measurement mechanism
- independence from sampling techniques, timing and statistical abnormalities⁸³.

⁸¹ *Guidelines for Managing Risk in Outsourcing utilizing the AS/NZS 4360 process*; op cit, p3

⁸² *Service provider performance management*; NSW Government Procurement Guidelines, Department of Public Works and Services, May 2000, p7

⁸³ *Contracting Out Guideline*; op cit

Benchmarking

Although companies benchmark information systems and IT functions for a variety of reasons, the reasons most commonly cited include justifying the company's investment in IT, evaluating the performance of the information systems group and its management, and improving the IS functions within the organization. Benchmarking also often occurs as one component of a more extensive cost assessment or cost reduction effort, a total quality management program, or a strategic planning effort⁸⁴.

Examples of common benchmarks include:

Communications	Telecommunications (percentage of revenue) WAN cost per packet, per byte, per message
Customer satisfaction	Overall satisfaction of information users and managers Manager satisfaction with cost and speed of development
Financial	IT expense (percentage of revenue) Average cost per job Average cost per input screen
Help Desk	Percentage of problems solved on first contact
Operations	Availability (percentage of time) Mean time between failure
Staffing	Payroll (percentage of IT budget)
System development	Projects completed on time and on budget
Training	Courses taken per IT employee per period IT courses taken by non-IT personnel per period ⁸⁵

⁸⁴ *Benchmarking the Information Systems Function*; CIMS Working Paper Series 94-08, Steven Gordon, Associate Professor of Information Systems, Babson College, Massachusetts, November, 1994

⁸⁵ *ibid*

Balanced scorecard

A Balanced Scorecard integrates financial and operational measures into a single, comprehensive framework.

The Balanced Scorecard approach lends itself especially well to one of the fundamental challenges facing CEOs and IT executives: namely, how to measure, improve, and understand the value that information technology delivers to the business. The Balanced Scorecard can help managers identify opportunities for improvement in IT, and track the impact of improvement initiatives through a wide range of performance indicators⁸⁶.

There are four perspectives on performance measurement considered by the Balanced Scorecard:

- the Financial perspective includes traditional measures such as profitability, revenues, and sales growth
- the Customer perspective focuses on both objective measurements such as customer retention, as well as more subjective criteria such as market research and customer satisfaction surveys
- the Internal Process perspective comprises measurements of critical operational indicators ...
- the Learning and Innovation perspective addresses the basic competitive imperative faced by every business – the need to constantly change and adapt to new challenges and new environments⁸⁷.

Regular reviews

It is important to undertake periodical reviews to assess changes in information needs and to take advantage of major improvements in IT.

There should be a process to permit changing of direction, parameters, or targets when changes in information requirements or IT capabilities warrant.

Such a review should ensure that best practices in the management of information processes, whether in-house or outsourced, continue to be identified and applied throughout the agency.

To drive improvements, the outcomes of performance analysis need to be fully understood and communicated to those that may be involved in any subsequent change ... Change plans should be devised for all personnel with a contribution to make, whether at implementation or management level, thus securing the involvement and enthusiasm of all staff⁸⁸.

⁸⁶ *The Balanced Scorecard and IT Management*, Robert S Gold, Compass International White Paper, no date

⁸⁷ *ibid*

⁸⁸ *Beyond Benchmarking: Using Performance Analysis to Improve IT and Business Operations*, Howard Davies, Compass International, 2001

The pitfalls of contract management

In entering into contracts for the delivery of services agencies need to be mindful of the following:

- failing to have staff with appropriate contract management skills available
- failing to implement contract management infrastructure.
- poor initial terms and conditions within the tender document
- not being prepared for disengagement
- failure to retain key skills
- failure to re-engineer the residual business processes to reflect the new ways of doing business
- viewing the relationship with the contracting-out service provider in solely contractual terms rather than as a business partnership⁸⁹.

Migration pitfalls

- failure to prepare for contract disengagement
- insufficient planning detail
- failure to maintain updated copy of intellectual property
- poor understanding of alternative contracting-out vendor options
- failure to retain understanding of connection between requirements and current IM&T resources⁹⁰.

Implementation and transition pitfalls

- ignoring disengagement issues when developing the contracting-out services contract
- structuring contracts with non-commercial, non-legally binding terms and conditions
- insufficient attention is paid to change management issues and concerns
- failing to recognise that any contracting-out project will take time⁹¹.

⁸⁹ *Contracting Out Guideline*; op cit

⁹⁰ *ibid*

⁹¹ *ibid*

Appendix 2

About the audit

Audit objective

The objectives of the audit are to determine whether IT outsourcing efforts of agencies:

- have been adequately planned, implemented and evaluated
- have improved effectiveness and efficiency of service delivery
- have identified and documented successful strategies and procedures.

Scope and focus

The audit will review (the):

- the strategic context and purpose of outsourcing
- guidelines and practices in use
- agencies currently most active in outsourcing
- activities most widely subject to market testing or outsourcing
- evaluation and reporting procedures and performance indicators relevant to outsourcing
- agency perceptions of success and failure of processes and outcomes
- any contemporary issues or problems with outsourcing practices
- opportunities and threats identified in other jurisdictions.

Audit approach and methodology

The outsourcing arrangements of five agencies were reviewed as part of the audit. The agencies are:

- Department of Education and Training (DET)
- Macquarie Generation
- Department of Juvenile Justice (DJJ)
- Department of Corrective Services (DCS)
- Rail Infrastructure Corporation (RIC).

The audit compared practice by agencies with the above objectives. Where practice did not comply with the criteria, the finding provided the basis of the report. Positive exceptions have also been identified.

The audit approach and methodology included:

- research, review and analysis of relevant literature and studies undertaken (nationally and internationally)
- review of Premier's Department and OIT Guidelines and Memoranda relevant to IT outsourcing
- interviews with agency IT staff on their IT outsourcing history and practices
- analysis of information and documents relevant to IT outsourcing provided by the agencies
- discussions with users of information within the agencies, with external users (where such existed), with representatives of service providers and with a private sector organisation with extensive experience in IT outsourcing.

Audit cost

The cost of the audit was \$235,467. This figure includes the estimated cost of printing the report (\$5,000).

The audit team comprised:

D Streater (Engagement Controller)

G Moran (Project Leader)

S Tomasi.

Appendix 3 **Terms used in this report**

Balanced scorecard

The Balanced Scorecard is a performance measurement and management system developed in the early 1990's and published in the Harvard Business Review in 1992 by Prof. Robert S. Kaplan and Dr David P. Norton. This strategic management approach translates a vision into a clear set of objectives or critical success factors. Key performance indicators then measure each objective's performance, representing a broad range of outcome measures and performance drivers⁹².

Baseline costs

A reference point against which changes in costs are measured. Usually baseline costs are taken as the total costs of an IT system before any improvements or enhancements are undertaken.

Benchmarking

Benchmarking is a powerful performance management tool, which can be used to generate both incremental change and wide-ranging strategic reform for the organisation. It is a learning process in which information, knowledge and experience about leading practices is shared through partnerships between organisations. It allows an organization to compare itself with others and, in the process, step back from itself and reflect. Comparative measurement through benchmarking helps to identify problems and opportunities and also test hypotheses and 'gut feelings' about performance. Benchmarking offers an organisation an opportunity to change and to improve⁹³.

Benefits realisation Register

The Benefits Realisation Register, developed as part of a project business case, is designed to be a structured way to document and monitor the benefits expected from an ICT project⁹⁴.

Business process re-engineering

Any radical change in the way in which an organisation performs its business activities. Business process re-engineering involves a fundamental re-think of the business processes followed by a redesign of business activities to enhance all or most of its critical measures: costs, quality of service, staff dynamics, etc⁹⁵.

⁹² *Background: The Balanced Scorecard*; Centre for Business Performance, Cranfield University School of Management <http://www.som.cranfield.ac.uk/som/cbp/>

⁹³ *Partnering Change: Benchmarking Corporate Services*; NSW Premier's Department Review and Reform Division, 2001, p1

⁹⁴ *Benefits Realisation Guideline*; Office of Information Technology, Issue No 2.0, 6 August 2001

⁹⁵ *The Free On-line Dictionary of Computing*, Denis Howe 1993-2001, <http://www.dictionary.com/>

Contracting out	<p>... a method of acquiring services, an alternative delivery mechanism or resourcing alternative ... Contracting-Out typically involves an external party providing an agreed level of service or deliverable, for a predetermined fee as defined in a contractual arrangement ... The terms Contracting-Out and Outsourcing are often interchanged⁹⁶</p> <p>Use of external service providers to supplement the usual in-house service provision in times of peak load is not considered to be outsourcing.</p> <p>Activities increasingly referred to as partnerships or alliances between the client and an external service provider are also within the scope of this audit.</p>
DITM	The Department of Information Technology and Management.
GITC	The Government Information Technology Conditions, a standard contract for the acquisition of Information Technology in the public sector. OIT's guidelines require that the GITC be utilised in all contracts for the acquisition of IM&T products and services.
GSAS	<p>The Government Selected Application Systems Guideline, which is to be applied to all IM&T related projects that result in the acquisition of new, replacement, upgraded or enhanced corporate application software. It consists of a list of approved organisations and software packages for:</p> <ul style="list-style-type: none"> ▪ Human Resource & Payroll Management Systems ▪ Financial Management Systems ▪ Records Management Systems ▪ Library Management Systems ▪ Integrated Management Systems
ICT	Information and communication technology
IM&IT	Information management and information technology
IM&T	Information management and technology

⁹⁶ *Contracting Out Guideline*; op cit, p2, 3

IM&T blueprint *Information Management & Technology Blueprint for NSW: A Well-connected Future* is an IT strategic plan published on behalf of the NSW Government by the Department of Public Works and Services in 1997.

The Information Management & Technology Blueprint outlines ways to create accessible and responsive government services and deliver them efficiently and cost-effectively to the community.

The Information Management and Technology Blueprint will be implemented by the Minister through the Department of Public Works and Services with assistance from the Government Information Management Board⁹⁷.

Intellectual property Intellectual Property (IP) is part of the larger concepts of knowledge, innovation and intellectual capital.

IP is the legally recognised outcome of creative effort and economic investment in creative effort. The law governing IP is extensive and complex⁹⁸.

IT Information technology

KPI Key performance indicators:

KPIs are [performance] measures that demonstrate the current and future condition of an entity in terms of the programs it supports and the results it achieves ... KPIs exist within a context defined by objectives.

KPIs are useful instruments for several reasons:

- service improvement
- management improvement
- accountability
- legal requirements⁹⁹.

⁹⁷ *Information Management & Technology Blueprint for NSW: A Well-connected Future*; op cit

⁹⁸ *Management of Intellectual Property*; The Audit Office of New South Wales, October 2001

⁹⁹ *Developing KPIs in the Public Sector*; CPA Australia, 2001

Metric	<p>In software development, a metric (noun) is the measurement of a particular characteristic of a program's performance or efficiency. Similarly in network routing, a metric is a measure used in calculating the next host to route a packet to. A metric is sometimes used directly and sometimes as an element in an algorithm. In programming, a benchmark includes metrics¹⁰⁰.</p> <p>... a quantity reflecting a characteristic of a network¹⁰¹</p> <p>... a quantitative measure of the degree to which a system, component, or process possesses a given attribute [IEEE Std 610.12-1990]¹⁰²</p> <p>Notwithstanding these specific definitions, 'metric' is often merely a synonym for 'measurement' or 'indicator'.</p>
OIT	The Office of Information Technology, part of DITM.
Outsourcing	See <i>Contracting out</i>
Risk management	Risk management is a comprehensive, structured and systematic process to evaluate and address the impact of risks in a cost effective way by using appropriate skills to identify and assess the potential for risks to arise ¹⁰³ .
Service level agreement (SLA)	A service level agreement is both a process and a document. The service level agreement process involves the customer and service provider agreeing on suitable targets for particular services. This process is also treated as a commercial transaction... A service level agreement document is like a contract. It formalises an agreement between two parties by setting out a minimum level of service ¹⁰⁴ .

¹⁰⁰ http://whatis.techtarget.com/definition/0,,sid9_gci212560,00.html

¹⁰¹ http://www-unix.gridforum.org/mail_archive/perf-wg/msg00314.html

¹⁰² <http://www.computer.org/certification/csdpprep/Glossary.htm>

¹⁰³ *Managing Risk in the NSW Public Sector*, The Audit Office of New South Wales, June 2002

¹⁰⁴ *Service Level Agreements: Guidelines for Public Sector Organisations*, NSW Premier's Department, Corporate Services Reform Team, 1999

Performance Audits by the Audit Office of New South Wales

Performance Auditing

What are performance audits?

Performance audits are reviews designed to determine how efficiently and effectively an agency is carrying out its functions.

Performance audits may review a government program, all or part of a government agency or consider particular issues which affect the whole public sector.

Where appropriate, performance audits make recommendations for improvements relating to those functions.

Why do we conduct performance audits?

Performance audits provide independent assurance to Parliament and the public that government funds are being spent efficiently and effectively, and in accordance with the law.

They seek to improve the efficiency and effectiveness of government agencies and ensure that the community receives value for money from government services.

Performance audits also assist the accountability process by holding agencies accountable for their performance.

What is the legislative basis for Performance Audits?

The legislative basis for performance audits is contained within the *Public Finance and Audit Act 1983, Division 2A*, (the Act) which differentiates such work from the Office's financial statements audit function.

Performance audits are not entitled to question the merits of policy objectives of the Government.

Who conducts performance audits?

Performance audits are conducted by specialist performance auditors who are drawn from a wide range of professional disciplines.

How do we choose our topics?

Topics for a performance audits are chosen from a variety of sources including:

- ❑ our own research on emerging issues
- ❑ suggestions from Parliamentarians, agency Chief Executive Officers (CEO) and members of the public
- ❑ complaints about waste of public money
- ❑ referrals from Parliament.

Each potential audit topic is considered and evaluated in terms of possible benefits including cost savings, impact and improvements in public administration.

The Audit Office has no jurisdiction over local government and cannot review issues relating to council activities.

If you wish to find out what performance audits are currently in progress just visit our website at www.audit@nsw.gov.au.

How do we conduct performance audits?

Performance audits are conducted in compliance with relevant Australian standards for performance auditing and our procedures are certified under international quality standard ISO 9001.

Our policy is to conduct these audits on a "no surprise" basis.

Operational managers, and where necessary executive officers, are informed of the progress with the audit on a continuous basis.

What are the phases in performance auditing?

Performance audits have three key phases: planning, fieldwork and report writing.

During the planning phase, the audit team will develop audit criteria and define the audit field work.

At the completion of field work an exit interview is held with agency management to discuss all significant matters arising out of the audit. The basis for the exit interview is generally a draft performance audit report.

The exit interview serves to ensure that facts presented in the report are accurate and that recommendations are appropriate. Following the exit interview, a formal draft report is provided to the CEO for comment. The relevant Minister is also provided with a copy of the draft report. The final report, which is tabled in Parliament, includes any comment made by the CEO on the conclusion and the recommendations of the audit.

Depending on the scope of an audit, performance audits can take from several months to a year to complete.

Copies of our performance audit reports can be obtained from our website or by contacting our publications unit.

How do we measure an agency's performance?

During the planning stage of an audit the team develops the audit criteria. These are standards of performance against which an agency is assessed. Criteria may be based on government targets or benchmarks, comparative data, published guidelines, agencies corporate objectives or examples of best practice.

Performance audits look at:

- processes
- results
- costs
- due process and accountability.

Do we check to see if recommendations have been implemented?

Every few years we conduct a follow-up audit of past performance audit reports. These follow-up audits look at the extent to which recommendations have been implemented and whether problems have been addressed.

The Public Accounts Committee (PAC) may also conduct reviews or hold inquiries into matters raised in performance audit reports.

Agencies are also required to report actions taken against each recommendation in their annual report.

To assist agencies to monitor and report on the implementation of recommendations, the Audit Office has prepared a Guide for that purpose. The Guide, *Monitoring and Reporting on Performance Audits Recommendations*, is on the Internet at www.audit.nsw.gov.au/guides-bp/bpplist.htm

Who audits the auditors?

Our performance audits are subject to internal and external quality reviews against relevant Australian and international standards.

The PAC is also responsible for overseeing the activities of the Audit Office and conducts reviews of our operations every three years.

Who pays for performance audits?

No fee is charged for performance audits. Our performance audit services are funded by the NSW Parliament and from internal sources.

For further information relating to performance auditing contact:

Tom Jambrich
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Performance Audit Branch
(02) 9285 0051
email: tom.jambrich@audit.nsw.gov.au

Performance Audit Reports

No.	Agency or Issue Examined	Title of Performance Audit Report or Publication	Date Tabled in Parliament or Published
64*	Key Performance Indicators	<ul style="list-style-type: none"> ▪ <i>Government-wide Framework</i> ▪ <i>Defining and Measuring Performance (Better practice Principles)</i> ▪ <i>Legal Aid Commission Case Study</i> 	31 August 1999
65	Attorney General's Department	<i>Management of Court Waiting Times</i>	3 September 1999
66	Office of the Protective Commissioner Office of the Public Guardian	<i>Complaints and Review Processes</i>	28 September 1999
67	University of Western Sydney	<i>Administrative Arrangements</i>	17 November 1999
68	NSW Police Service	<i>Enforcement of Street Parking</i>	24 November 1999
69	Roads and Traffic Authority of NSW	<i>Planning for Road Maintenance</i>	1 December 1999
70	NSW Police Service	<i>Staff Rostering, Tasking and Allocation</i>	31 January 2000
71*	Academics' Paid Outside Work	<ul style="list-style-type: none"> ▪ <i>Administrative Procedures</i> ▪ <i>Protection of Intellectual Property</i> ▪ <i>Minimum Standard Checklists</i> ▪ <i>Better Practice Examples</i> 	7 February 2000
72	Hospital Emergency Departments	<i>Delivering Services to Patients</i>	15 March 2000
73	Department of Education and Training	<i>Using computers in schools for teaching and learning</i>	7 June 2000
74	Ageing and Disability Department	<i>Group Homes for people with disabilities in NSW</i>	27 June 2000
75	NSW Department of Transport	<i>Management of Road Passenger Transport Regulation</i>	6 September 2000
76	Judging Performance from Annual Reports	<i>Review of eight Agencies' Annual Reports</i>	29 November 2000
77*	Reporting Performance	<i>Better Practice Guide A guide to preparing performance information for annual reports</i>	29 November 2000
78	State Rail Authority (CityRail) State Transit Authority	<i>Fare Evasion on Public Transport</i>	6 December 2000
79	TAFE NSW	<i>Review of Administration</i>	6 February 2001
80	Ambulance Service of New South Wales	<i>Readiness to Respond</i>	7 March 2001
81	Department of Housing	<i>Maintenance of Public Housing</i>	11 April 2001
82	Environment Protection Authority	<i>Controlling and Reducing Pollution from Industry</i>	18 April 2001

No.	Agency or Issue Examined	Title of Performance Audit Report or Publication	Date Tabled in Parliament or Published
83	Department of Corrective Services	<i>NSW Correctional Industries</i>	13 June 2001
84	Follow-up of Performance Audits	<i>Police Response to Calls for Assistance The Levying and Collection of Land Tax Coordination of Bushfire Fighting Activities</i>	20 June 2001
85*	Internal Financial Reporting	<i>Internal Financial Reporting including a Better Practice Guide</i>	27 June 2001
86	Follow-up of Performance Audits	<i>The School Accountability and Improvement Model (May 1999) The Management of Court Waiting Times (September 1999)</i>	14 September 2001
87	E-government	<i>Use of the Internet and related technologies to improve public sector performance</i>	19 September 2001
88*	E-government	<i>e-ready, e-steady, e-government: e-government readiness assessment guide</i>	19 September 2001
89	Intellectual Property	<i>Management of Intellectual Property</i>	17 October 2001
90*	Better Practice Guide	<i>Management of Intellectual Property</i>	17 October 2001
91	University of New South Wales	<i>Educational Testing Centre</i>	21 November 2001
92	Department of Urban Affairs and Planning	<i>Environmental Impact Assessment of Major Projects</i>	28 November 2001
93	Department of Information Technology and Management	<i>Government Property Register</i>	31 January 2002
94	State Debt Recovery Office	<i>Collecting Outstanding Fines and Penalties</i>	17 April 2002
95	Roads and Traffic Authority	<i>Managing Environmental Issues</i>	29 April 2002
96	NSW Agriculture	<i>Managing Animal Disease Emergencies</i>	8 May 2002
97	State Transit Authority Department of Transport	<i>Bus Maintenance and Bus Contracts</i>	29 May 2002
98	Risk Management	<i>Managing Risk in the NSW Public Sector</i>	19 June 2002
99	E-government	<i>User-friendliness of Websites</i>	26 June 2002
100	NSW Police Department of Corrective Services	<i>Managing Sick Leave</i>	23 July 2002

No.	Agency or Issue Examined	Title of Performance Audit Report or Publication	Date Tabled in Parliament or Published
101	Department of Land and Water Conservation	<i>Regulating the Clearing of Native Vegetation</i>	20 August 2002
102	E-government	<i>Electronic Procurement of Hospital Supplies</i>	25 September 2002
103	NSW Public Sector	<i>Outsourcing Information Technology</i>	October 2002

* Better Practice Guides

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