Performance Audit Report

e-government

*Use of the Internet and related technologies
to improve public sector performance*

Contents

Executive Summary

The transition to e-government may be the most far reaching challenge of our time.

The transformation from traditional government to electronic government may be one of the most important public policy issues of our time.[1] It runs to the heart of how governments operate and how they interact with the community. This performance audit provides a strategic overview of the current position of the NSW public sector in its implementation of e-government.[2]

Audit Opinion

NSW was a leader with its 1997 e-government vision.

NSW was one of the first governments to lay out a program for public sector reform using the Internet. The vision announced in the *Information Management and Technology Blueprint for NSW* and *connect.nsw* was far reaching. International consultants in 1997 commented that NSW was "extremely well positioned to take advantage of the benefits that electronic service delivery has to offer".[3]

Implementation has been pursued energetically and many services are available online …

Implementing the Government's challenging vision for e-government leadership is a huge, complex and difficult task. Much hard work has been done to guide the NSW public sector into the information age.

For example, at the whole-of-government level, a central Internet portal has been in place for some time and is being continually expanded. And at the agency level, a strong initial focus has been mandated towards electronic service delivery (ESD). Combined, these approaches have led to nearly 900 services across the NSW public sector being available online (or planned to be available shortly).

… however, actions will need to be accelerated to achieve the Government's vision.

However, notwithstanding the considerable effort, it is not apparent that the Government's vision can be fully achieved without increased efforts. For example, in setting ESD targets some agencies may have selected services which could quickly be put online, as opposed to those which might generate most overall benefit. But of even more significance, much of the value from e-government lies in reform of administrative processes within and between agencies - often called 'cutting red tape' and 'breaking down the silos'. Action here is more limited.

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[1] For example, see USA NECCC, *E-government Strategic Planning: a White Paper*, 13 December 2000.

[2] In judging progress, the findings and conclusions of this audit have been framed against the context set by the NSW Government. A challenging 'leadership' vision has been set for the transformation to e-government. And the Government appears to hold high expectations for the scope and pace of implementation.

[3] Advice provided to NSW Government by US based consultant NBTel, quoted in *connect.nsw* implementation framework (1998).

Seamless government and e-procurement offer immense potential for improved performance and economy in the public sector. To achieve benefits of magnitude, major re-engineering within and between agencies is often required. There are a number of examples of such reform, some of which have been underway for some time. However, consistent with most advanced jurisdictions, such reform needs to be accelerated to secure the sea change towards e-government which the Government desires.

The NSW public sector as a whole is just starting to understand the possibilities available with the new technologies, and to acquire the skills necessary to apply the technologies to reform business processes. But the Government has set an ambitious vision for NSW to be a leader in the implementation of e-government.

Five key issues need to be addressed.

Based on the current position, to ensure that the Government's vision can be achieved the Audit Office is of the view that the following key issues need to be urgently addressed:

- more robust mechanisms are needed to monitor, review and report publicly on progress and benefits

- a greater emphasis should be placed on central coordination to ensure that agencies act in a more uniform and integrated manner

- the achievement of significant reform of business processes will require a substantial strengthening of accountability mechanisms and more comprehensive, rigorous and systematic approaches to e-government project and risk management

- despite an array of guidance material and support provided by central agencies, line agency needs for assistance do not seem to be being met to sufficiently advance matters across the sector at the pace and scope desired

- the Government's e-government aspirations and funding are not always effectively harmonised. Agencies typically have limited resources available to trial or experience new technologies, and display an aversion to the associated risks.

Moving Forward

Recommendations are provided to address issues and impediments identified by the audit …

To contribute towards the significant efforts already underway, this report outlines the challenges (issues and impediments) which require attention. Strategies adopted and initiatives announced are pushing in the right direction. But many have only recently commenced, or are as yet only planned. To move forward at the pace expected by the Government, there is a need for a more comprehensive, coordinated and committed effort by both central and line agencies.

To that end, this report examines each of the above matters in detail and provides recommendations to address the audit's findings. In that respect it is pleasing to note that as this report was being finalised:

… and some significant action has already been taken.

- the Acting Premier issued a Memorandum to all Ministers and Chief Executives which called on Ministers to "ensure that all organisations under their administration are aware of the importance of e-government and provide the necessary information and high level support to assist in delivering the Government's agenda".[4] The Acting Premier also announced the establishment of the Chief Executive Officers' (CEOs) e-Government Committee[5] with a charter encompassing several of the key issues raised in this report as requiring urgent resolution

- the Minister for Public Works and Services released the NSW Government Electronic Procurement Implementation Strategy.

The Audit Office has also published a Better Practice Guide to assist line agencies to assess their readiness for implementing e-government.

In addition to this report, the Audit Office has developed a companion Better Practice Guide which is designed to assist agencies in meeting the challenges of exploiting the benefits and managing the risks which e-government presents. The Better Practice Guide forms part of this audit and draws from the research assembled in the audit. It specifically focuses upon issues at the line-agency level, in a self-help guide format. The Guide will continue to evolve based upon ongoing experiences and feedback from agencies. It will be updated and available on the Audit Office's website.

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[4] Premier's Memorandum No. M2001 – 09.
[5] This Committee replaces the former Chief Executive Officers' Standing Committee on Information and Communications Technology and Management.

General Audit Findings

In addition to the key issues highlighted in the Audit Opinion, this report canvasses a range of other related matters, which are summarised here.

Most progress has been in electronic service delivery.

Looking at the overall position with implementing e-government, the Audit Office observed that many initiatives have been undertaken and a number of commendable achievements made (which are detailed throughout this report). The majority of progress has been in the area of electronic service delivery (ESD), for which the Government established targets and a reporting regime. There is some doubt, however, that the services thus far provided electronically will meet the targets established by the Government, or that they are always those most sought-after by citizens or which deliver most efficiency benefits.

Fundamental change has so far been limited.

Fundamental change to the way the NSW public sector operates, in particular the use of technology to significantly redesign business processes and better share information, has so far been limited. However, again this is fairly typical of many of the more advanced jurisdictions.

Agencies are struggling and need more guidance and support.

Despite central agency efforts to date, which include an array of guidance materials and support, not all line agency staff responsible for implementation have a clear understanding of the implications of e-government for their agency. Many agencies are struggling to translate the Government's strategic aspirations into action. The level of guidance and support available from central agencies was a recurring theme. Combined with currently very limited sharing of better e-practices across the sector, many agencies did not seem well positioned to deal effectively with the challenges.

Greater incentives are required …

…and sector-wide leverage needs to be strengthened.

Incentives to promote the substantial and difficult reform processes necessary are not adequate. Incentives to maintain the status quo are stronger, especially in parts of the public sector which are traditionally risk averse. A feature of e-government should be cross-agency reform. Current administrative arrangements are orientated to strong independence for agencies. 'Letting the managers manage' may provide an impediment if accountability for achieving the potential of e-government is blurred (as is presently the case).

Funding issues and processes are critical.

The bulk of funding for Information and Communications Technology (ICT) is provided through traditional funding approaches. A more flexible approach may be desirable.

The legal and social frameworks are still in development.	Many agencies are uncertain about the 'legality' of e-government initiatives in place and planned. The legal and regulatory framework for electronic transactions is still in development, as is the case in most other jurisdictions. The so-called 'digital-divide' may also be an issue.[6]
Privacy issues are not being effectively addressed.	There is a need for an effective means of resolving important issues of privacy and information sharing. Some projects are being halted by a failure to resolve these matters. And NSW public sector websites reviewed by the Audit Office rated poorly in informing users about key privacy concerns.
ICT skills are in short supply … **… and the widespread use of consultants requires caution.**	Attracting and retaining skilled ICT staff is a worldwide problem in all sectors. NSW public sector employment arrangements present particular barriers. Much use is made of consultants to fill the gap. However, agencies often find difficulties in affording such expertise, and in managing consultants due to their own limited level of knowledge. Strategies to improve human resource management and access to ICT skills are in place, but accelerated progress is needed.

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[6] The term refers to the gap between those that have access to computing technology and the ability to effectively use it; and those that do not.

Recommendations

1. Enhance directions, guidance and accountability to take the sector into the next, more challenging phase of e-government.

Actions to be considered include:

- articulate a clear and comprehensive plan

- reaffirm and, where not present, establish priorities, targets and timeframes for agencies and for e-government overall

- provide targeted support to agencies based on their capacity to implement e-government

- provide adequate incentives for agencies to implement more fundamental reform

- establish comprehensive, coherent, robust and transparent measurement and reporting of e-government progress

- give central agencies greater leverage to drive e-government

- put in place a legal and administrative framework which validates electronic transactions and removes paper-based bias

- ensure agencies adopt comprehensive, rigorous and systematic approaches to project and risk management

- extend efforts to enhance access to and use of Internet technologies by disadvantaged groups.

2. Ensure that the sector has access to people with the necessary knowledge and skills to progress e-government and is able to deploy them efficiently and effectively.

Actions to be considered include:

- fast-track the implementation of initiatives to increase employment flexibility and mobility across the sector

- urgently enhance incentives to attract and retain skilled ICT staff

- improve the management of workplace reform and staff displaced by change

- improve the education and re-skilling of management

- develop a capacity to provide greater practical support to line agencies and promote improved sharing of knowledge and experience across the sector.

3. **Ensure funding levels and processes are harmonised with the Government's aspirations for e-government.**

   Actions to be considered include:

   - address the current mismatch between e-government funding levels and policy ambitions

   - modify budgeting procedures to increase flexibility and responsiveness and channel more funding to cross-agency operations

   - better communicate broader government funding priorities to assist agencies in determining whether to proceed with the preparation of detailed business cases for major e-government projects

   - articulate a position on the use of innovative funding options involving the private sector and user charges.

4. **Provide a greater emphasis to e-government security across the sector.**

   Actions to be considered include:

   - closely monitor emerging security issues and keep agencies informed of developments in a clear, concise and timely manner

   - ensure agencies have access to sufficient expertise and resources to effectively implement e-government security in line with OIT guidelines (and hence Australian Standards)

   - hold agencies accountable for the competent management of their e-government security risks.

5. **Better assist agencies to understand and reconcile the requirements for privacy with the benefits to service quality and efficiency which may derive from increased information sharing.**

   Actions to be considered include:

   - finalise and issue as a matter of urgency the privacy guideline presently under development

   - establish an effective means of resolving important issues of privacy and information sharing.

6. **Increase information and systems sharing across government.**

   Actions to be considered include:

   - increase the rate of migration to common network infrastructure and an enterprise approach to systems and applications

   - apply a cost-benefit approach to addressing interoperability issues associated with legacy systems, which recognises whole of government benefits

   - accelerate the adoption of standards for information sharing within NSW government agency clusters and, where practical, with other levels of government, the private sector and other stakeholders

   - develop a capacity for ongoing expert evaluation of emerging technologies.

7. **Actively drive the recently announced E-Procurement Implementation Strategy.**

   Actions to be considered include:

   - ensure responsibilities for implementation are clear

   - ensure central and line agencies are held accountable for meeting targets and for achieving the performance improvements foreshadowed in the Strategy.

Formal Government response

A detailed formal response to the audit, compiled by the Department of Information Technology and Management, is at Appendix 4. The response provides extensive commentary on initiatives and activities being undertaken in the overall pursuit of e-government.

The audit involved extensive research and consultation to obtain a broad picture of activities being undertaken within the NSW public sector. As is normal practice, the audit conclusions are based upon this body of research and findings even though the report may only mention selected items.

Some of the initiatives and intentions included in the formal Government response are not at a stage that would enable us to draw any conclusion as to their effectiveness. Accordingly, they do not feature in our report.

1. Introduction

1.1   Why examine e-government?

The information age is here.

The use of the Internet in the developed world is growing rapidly. In the private sector, customers are being exposed to the new services, innovative service delivery models, convenience and savings which the Internet presents. Citizens are now expecting similar service standards of government.

Governments worldwide are recognising this, and the opportunities the Internet and related technologies offer to meet these demands.

> Government will change more in the next decade than it has in the past century due to the implementation of e-government.[7]

It offers improved services to customers …

E-government is about improving the efficiency and effectiveness of government by using the Internet and related technologies. It can be a key catalyst for changing the nature and delivery of social programs, services and information, offering the potential for:

- access when and where the customer demands
- customisation for the individual
- single points of interaction with government
- improved equity, particularly in rural and remote areas
- configuring service delivery around what the citizen wants to do, rather than around the structure of agencies.

… and opportunities to improve administration.

E-government can also generate substantial and ongoing productivity gains. It provides opportunities for:

- redesigning and streamlining business processes
- improving sharing and dissemination of information
- reducing overlap, duplication and red-tape.

E-government can also be a contributor to economic and social development. A government that transforms the way it does business can encourage its suppliers to do the same. A government embracing new information and communications technologies will be in a good position to attract, retain, incubate and support knowledge-based industries.

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[7] USA National Electronic Commerce Coordinating Council, *E-government Strategic Planning, a White Paper,* 13 December 2000, p5.

NSW has a 'leadership' vision …

In 1997, the NSW Government released the *Information Management and Technology Blueprint for NSW – A well-connected future* and *connect.nsw – an Internet strategy for NSW*. These set out a vision and strategy for the use of the Internet and related technologies (e-government) to deliver better and cheaper services.

OIT estimates that the NSW public sector will spend $800 million on information management and related technologies in 2000-01. While this is substantial expenditure, these technologies have the potential to impact upon the efficiency and effectiveness of most, if not all, public sector activities.

1.2 Auditing e-government – what's in store?

The Audit Office recognises that e-government manifests itself in many forms. It represents the equivalent of the industrial revolution for the new millennium. It will transform our society, our business models, our service delivery forms, our organisation forms.

… and the Audit Office has adopted e-government as a key area of focus.

As such, the Audit Office has targeted e-government as a theme area for ongoing examination, with a series of performance audits. To date, audits have been completed which examined technology related issues such as:

- sharing of data between agencies in land tax administration

- use of computers in schools for teaching and learning

- implementation of computer aided dispatch systems for Police and ambulance response

- communication systems integration in bushfire fighting operations.

Appendix 1 provides specific information about this audit.

A series of further topic or agency-specific audits are planned, to inquire into particular major applications of e-government. The Audit Office's ongoing work on e-government can be viewed on our website at www.audit.nsw.gov.au .

1.3 Audit products

Two products have been produced as part of this audit.

To provide maximum assistance, both a performance audit report and a Better Practice Guide have been developed.

In addition to this report, the Audit Office has developed a companion Better Practice Guide. The Better Practice Guide draws from the research assembled in the audit and specifically focuses upon issues at the line-agency level, in a self-help guide format.

1.4 Guide to this report

Throughout this report, reference is made to:

- *Better practice* – in the view of leading experts

- *Key initiatives* – of the NSW Government related to the chapter's topic area

- *Expert opinions* – on particular issues relevant to e-government implementation

- *Global position* – outlining practices or issues found in other jurisdictions

- *Key common issues for NSW government agencies* – summarised from agency focus and discussion sessions, feedback from agencies and discussions with individual agencies.

1.5 Acknowledgments

The Audit Office would like to extend its thanks to the many individuals and organisations who provided assistance to this audit. Particular thanks is due to the members of the *expert panel* (refer Appendix 3) who formed a part of quality assurance framework for the audit. Acknowledgment is also made of the valuable *e-government auditing email network* which was established by the Audit Office to facilitate the interchange of ideas and expertise between Audit Offices throughout Australasia. And a special acknowledgement is given to the valuable international audit research available through the *USA National E-government Audit Working Group*, of which the Audit Office was a contributing member.

2. Where are we going and where are we?

This chapter outlines:

- the vision and strategy for e-government in NSW

- overall progress towards this vision.

2.1 Information Management & Technology Blueprint

The IM&T Blueprint was released in 1997, setting out a leadership vision.

In 1997, the NSW Government released the *Information Management and Technology Blueprint for NSW – A well-connected future*.

IM&T Blueprint – summary

Vision

To become a world leader in using information management and technology to deliver government services to the people of NSW.

Principles

- focusing on people's needs – providing tailored services, equity of access and convenience

- working smarter to cut red tape – improving service delivery, boosting productivity, cutting red tape and sharing resources

- boosting the economy of NSW – harness IM&T to create a globally competitive economy

Objectives

- exceptional customer service

- equity of access to government services

- data security

- better use of taxpayers funds

- government as a single entity

- managing information on an open data network

- sustained economic development

Strategies

- promote a public sector-wide approach to IM&T

- use IM&T to support overall Government outcomes

- take advantage of the strategic value of information

- support customer focused services

- use IM&T to broaden access to government information and services

- make the Government a smart acquirer of IM&T

- invest in relevant IM&T skills

- NSW Government to be a competent and confident user of IM&T

- use IM&T to support the development of New South Wales.

2.2 Connect.nsw

Connect.nsw was released in 1997 …

In late 1997, *connect.nsw – an Internet strategy for NSW* was released. This set out a strategy for the use of the Internet and related technologies (e-government) to deliver better and cheaper services. Four underlying and interlinked strategies were articulated.

… and the implementation framework in 1998.

In 1998, the *connect.nsw Implementation Framework* was released. It proposed a management structure to oversight the *connect.nsw Strategy*. Aspects of the *Strategy* were to be managed centrally, where potential was identified for a whole-of-government approach to generate net benefits. Other aspects were devolved to line agencies.

The *IM&T Blueprint* and *connect.nsw* placed NSW at the leading edge.

The *Blueprint* and the *connect.nsw Strategy* foreshadowed significant reform within agencies as well as whole-of-government approaches to deliver more seamless interaction with customers and stakeholders. New South Wales was one of the first governments to lay out a strategy for implementation of reform using the Internet. This was consistent with its vision to be a leader in the use of the Internet. International consultants at the time commented that:

> The New South Wales Government … is extremely well positioned to take advantage of the benefits that electronic service delivery has to offer.[8]

The four planks of the *Strategy* are outlined below and achievements discussed.

2.2.1 Electronic Service Delivery (ESD)

Electronic Service Delivery was a key plank of *connect.nsw*.

Electronic Service Delivery (ESD) was to encourage NSW government agencies to deliver customer-focussed services to the NSW community through the use of electronic technologies.

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[8] Advice provided to NSW Government by US based consultant NBTel, quoted in *connect.nsw* implementation framework (1998).

Planned ESD Initiatives (1998)
▪ extend the range of services available on ServiceNSW (NSW Government website)
▪ develop ServiceNSW service sectors
▪ deliver all Government publications and forms online
▪ establish performance standards for electronic customer service
▪ integrate services of other governments into ServiceNSW.

ServiceNSW was established as the Government's website …

ServiceNSW was established as the NSW Government's website. The structure of ServiceNSW is based on the input of user groups. The site was a semi-finalist in the *Australian Internet Awards 2000.*

ServiceNSW - www.nsw.gov.au
Provides a 'one-stop' access point to the online services and information provided by NSW public sector agencies. It facilitates access to government services by service sectors such as Business, Culture and Recreation, Education, Health, Emergency Services, Employment, Environment, Housing, Law and Justice, and Transport.

… and most agencies have their own websites.

Most NSW Government agencies now have websites.

In March 1999, the Government made a commitment for all *appropriate* government services to be available electronically via the Internet by 31 December 2001. The commitment extended and reinforced the Government's strategic direction for information technology and communications as documented in the two policy documents, the *Blueprint* and *connect.nsw Strategy.*

A reporting framework, with targets, was established …

In May 2000, Cabinet endorsed progressive ESD targets and a framework to provide regular reports on progress. The setting of progressive targets and establishment of a reporting framework was a response to an assessment that, at the time, the pace of implementation was limited and uneven.

ESD reporting framework

Framework

- applies to all Government agencies, including State Owned Corporations and Government Trading Enterprises
- monitors the progress of ESD implementation by agencies
- supports periodic reporting to Cabinet and Ministers of progress in meeting the 2001 commitment.

Target areas

- tender information on the Internet
- all appropriate Government publications on the Internet
- all appropriate high volume transactions on the Internet
- all other appropriate transactions on the Internet
- services delivered on other appropriate electronic delivery channels.

The targets reflected a strategy to develop content and information on the web-front to gain experience, and to then move to high-volume transactions.

NSW Government online services – selected examples

- train, bus and ferry timetables
- HSC results, access to past HSC exam papers and study notes, and other research resources
- payment of traffic infringement notices
- land title searches, land valuation and land tax clearance certificates
- register passenger motor vehicles which are less than three years old, register trailers and order a custom number plate
- payment of Sydney Water accounts
- renewal of boating licences and registrations, and mooring licences
- deal with regular routine Land and Environment Court matters over the Internet from the office or home of solicitors
- get help with starting your own business
- undertake TAFE information technology training courses online through the Open Training and Education Network
- register companion animals
- register wills
- obtain information on tenders and tendering, and lodge tenders

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Examples of improvements generated by ESD

NetPay – Payment of traffic infringement notices through the Internet. Benefits include reduced processing costs (from $1.30 to 50c per transaction), rapid return on investment, improved customer service, around-the-clock availability.

REVS – Obtaining information on vehicle encumbrances through the Internet. Benefits include reduced processing costs (savings of $3-$5 for every Internet query), rapid return on investment, improved customer service, around-the-clock availability.

… and a large number of services are in the process of going online …

OIT advised that as at 30 June 2001, agencies have commenced or completed 873 ESD projects that will deliver 882 online government services. Of these, 497 involve payments.

On 30 March 2001,[9] the Minister for Information Technology wrote to Ministers indicating that:

- 361 of these ESD projects had been completed
- 18 agencies had not completed their ESD returns
- 50 of the 108 responding agencies had not met one of the interim targets ('Tender information on the Internet' or 'All appropriate Government publications on the Internet')
- 20 agencies failed to meet both.

This patchy level of progress against the interim target, even at this late stage, seems to suggest that the rapidly approaching final target (31 December 2001) may not be met by all agencies. OIT do not agree. Formal reporting aside, OIT considers that progress has been accelerating and that the majority of agencies will achieve the Government's end 2001 ESD target.

… but services provided electronically may not always be key and high priority.

The ESD guidelines suggested that appropriate services would include those which would deliver efficiencies or improved services. The first meeting of the CEO Standing Committee supported the:

> …. use of the 'Year 2000 model' to monitor and report to Cabinet on the performance of agencies in delivering *key, high priority government services* by the end of 2001 (italics added for emphasis).

However, in the case of ESD each agency was free to determine which of its services would be provided electronically (ie. what was 'appropriate' for them). In so doing, for some agencies the ease of migration to the Internet seems to have been more influential than selecting services which best deliver improvements.

Key common issues for NSW agencies	
▪ Value of ESD targets/ reporting framework	Three different responses from agencies: - catalyst which got things moving - diverted resources to lower priorities - no impact and 'paper' compliance.
▪ 'Appropriate' services	What could be achieved by the deadline and what could be afforded.

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[9] Letter from the Minister for Information Technology to Ministers, 30 March 2001. Latest information available to the Audit Office.

This is not an uncommon situation in other jurisdictions.

Global position
💻 Starting with the services more easily migrated to the Internet is common practice among governments.

Notwithstanding the intention, it would now appear that in many instances the ESD framework may have had the effect of focusing agency effort primarily on ESD, thus distracting some agencies from use of the Internet for changing business processes.

Key common issues for NSW agencies	
▪ E-government thrust	ESD targets and reporting framework signalled the Government's priority was to increase the number of services provided electronically, not process or structural reform.

2.2.2 Integrated Government

Integrated Government was a second plank of *connect.nsw.*

Integrated Government was to establish common infrastructure for delivering government services and sharing information within and between agencies across the three tiers of government.

Planned Integrated Government Initiatives (1998)
▪ implement a government network service (GNS)
▪ develop and implement standards to support the integration of information and networks across government
▪ increase access points and delivery mechanisms
▪ build directories of government information resources
▪ establish a public sector electronic community
▪ develop strategic alliances with electronic service providers.

Progress with integration has occurred …

The GNS was established in March 1999. It aims to deliver a high-quality whole-of-government data communications network service using private suppliers.

Seventeen agencies have taken up one or more elements of GNS.

NSW has a number of guidelines and panel contracts in place to progress integration across government. OIT is also working with several agency clusters to develop standards for data sharing.

Public sector directories of information and a secure public sector Intranet are still in development. Guidelines to assist agencies with these matters were recently released.

… but there is scope for much more.

Multi–agency projects in the areas of online licensing, human services, emergency services, spatial data management and sector-based information management planning are underway.

Streamlining business licensing
The *connecting.business* online licensing project is a whole of government approach to licensing which should rationalise systems, eliminate duplication and ultimately reduce the costs of replacement systems. The project is being coordinated by OIT working with key licensing agencies. The 2001-02 State Budget provided $7.4 million for this project.

The development of strategic alliances with private providers has generally been limited, but is being explored on an ongoing basis.

Australian Centre for Advanced Computing and Communications - ac3
Opened in August 2000, this is a commercial partnership between the Government, Universities and the private sector. It provides facilities for learning and using supercomputers. It may also become an application service provider, with a particular focus on government. The NSW Government is providing $12 million over three years to this initiative. So far, two NSW agencies are using its services.

2.2.3 Electronic Commerce

A third *connect.nsw* plank was electronic commerce.

Electronic Commerce was to accelerate the take-up of electronic government to support NSW economic development.

Planned Electronic Commerce Initiatives (1998)
▪ promote awareness and use of electronic commerce
▪ government adopts electronic commerce in its dealings with business
▪ establish necessary legal and policy infrastructure for trustworthy electronic commerce.

The NSW Department of Public Works and Services (DPWS) has been actively working with business to promote e-commerce.

It is being used in a limited way.

At the same time, e-commerce is being used by the public sector in a limited way. In general, the sector has not been an early adopter. OIT advises that progress has been deliberately cautious given the lack of critical standards and the risk of being locked-in to proprietary systems and imposing undesirable costs on suppliers.

A number of initiatives recently implemented or nearing finalisation should increase the capacity use of e-commerce within the NSW public sector.

Key initiatives

Electronic tendering: The Department of Public Works and Services tenders website has been in operation since July 2000. The first electronic tender demonstrated the potential for efficiency – the time taken to open and register the tenders fell from three days to five hours. Electronic tendering will be progressively expanded and refined with selected agencies and industry sectors.

NSW Centre of Excellence for e-Business: Established in November 2000 as a pilot project to showcase new e-business technologies for government and the private sector and to identify ways to reduce the impact of the ICT skills shortage. It is a partnership between the Government and leading IT companies.

GSAS Financial Management System Contract: This contract, currently being evaluated, will offer agencies some of the key tools for e-commerce.

Indications are that these initiatives, when implemented, should increase efficiency both for agencies and private sector suppliers.

The legal framework for e-commerce is still in development.

Despite encouraging agencies to implement e-commerce, NSW is still in the process of establishing a legal and regulatory framework for electronic commerce. This lag in developing such aspects is common to governments across the world.

NSW Electronic Transactions Act

This Act reciprocates Commonwealth legislation and is designed to provide legal recognition of electronic transactions. It was passed in 2000, but is yet to be proclaimed.

NSW Treasury advises that it is rewriting the *Public Finance and Audit Act 1983*. The intent is that the legislation would become principles-based. This would eliminate detailed prescription and therefore paper-bias. The process of rewriting the Act, however, has been underway for around a decade.

2.2.4 Networked communities

**The fourth
connect.nsw plank
was networked
communities.**

Networked communities was to enhance the quality of life of
people living in NSW by networking within and across
communities, especially those isolated by distance or social
dislocation.

Planned Networked Communities Initiatives (1998)
▪ ensure community needs and service requirements are incorporated into ServiceNSW
▪ improve regional and remote equity of access
▪ establish websites to deliver information and services for regional communities.

**Several initiatives are
in progress …**

A number of initiatives designed to improve equity of access to
online services have been implemented.

Equity programs (selected)
Computers in Schools Program. All schools are connected to the Internet and have at least one computer unit for every eight students (with many schools having more). One quarter of all teachers have received basic computer training. Computer literacy tests will be compulsory in all NSW Government schools from 2003.
NSW.net Program. Free online access to computers and the Internet in public libraries.
Community Technology Centres (CTC) Program (a joint State/Commonwealth initiative) Centres are to be established in 55 towns with populations below 3,000. They are required to become self-sufficient over time. Infrastructure, training and support will be provided to kick off the CTCs.
Community-builders website. The site provides online access to information about community building strategies, resources, contacts and case studies.

**… but the digital
divide is a significant
issue requiring a
national approach.**

These programs all contribute to improving community access
to online services. Addressing the 'digital divide' is, however,
an issue which needs to be addressed on a continuous basis at all
levels of government. It is discussed further in chapter 3.

2.3 Audit observations

**NSW Government
was visionary …**

The NSW Government was among the first to articulate a vision
and broad strategy for reform of the public sector using the
Internet and related technologies.

… and ESD has been a focus of efforts.

Initial progress on electronic service delivery was limited and variable, and in response the Government established targets and a reporting framework to accelerate ESD. This has focused agency attention and efforts on increasing the number of services provided electronically. Indications are, however, that the Government's target of having all appropriate services available electronically via the Internet may not be met unless a significant increase in activity occurs. And that the services available online may not always be key, priority services. Agencies are also at different levels of infrastructure development, knowledge and capacity to implement ESD.[10]

The establishment of targets for the other three *connect.nsw* strategies (integrating government, e-commerce and networked communities) would assist assessment of the adequacy of progress in these areas. There are a number of initiatives in place in each of these areas. Many of these are fairly recent, and for these concrete achievements are yet to materialise to any significant extent.

Fundamental change is limited.

Fundamental change to the way government operates, in particular the use of technology to redesign business processes, has so far been limited. Recent research by the ICAC is illustrative.

ICAC Research

While e-mail and Internet use are pervasive, the usage of databases and eProcurement is in the early stages. About half of public organisations report having organisation-wide databases accessible to a majority of staff. However very few report using Inter-agency databases. The 'virtual organisation' in the public sector is a development likely only in the future.[11]

The examples available, however, appear to confirm that this is where potential for significant performance improvement remains. As put by Deloitte Research:

> Much of the potential of e-government will be forfeited if Internet applications are only front-end showcases that mask internal chaos.[12]
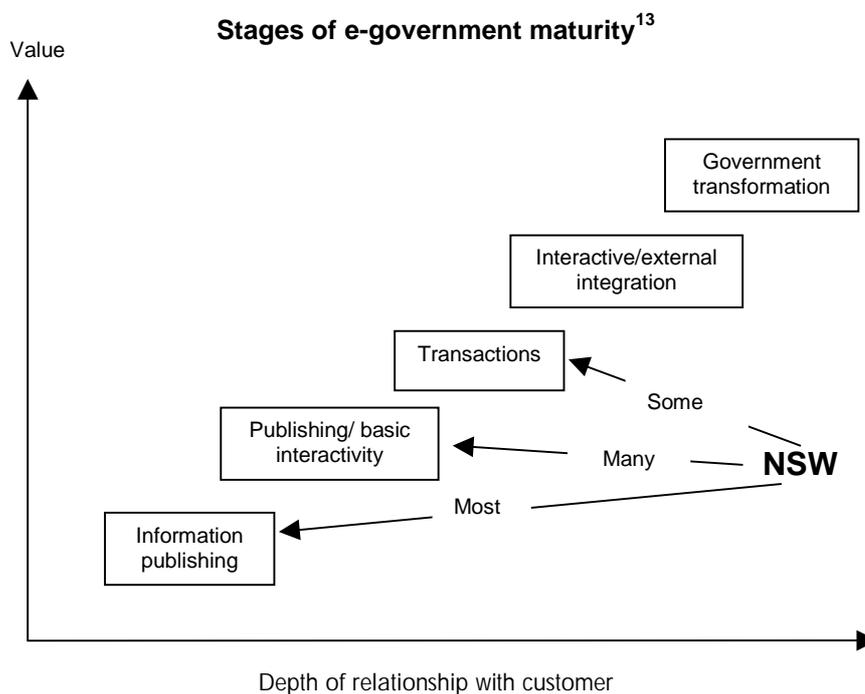
The NSW position on e-government progress.

The current position places NSW broadly in line with the more advanced governments across the world.

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[10] OIT paper to CEO Standing Committee on ICT and Management, July 2000.
[11] ICAC, *e-corruption and unmanaged risks*, May 2001.
[12] Deloitte Research, *At the Dawn of e-government*, 2000.

Stages of e-government maturity[13]

Value

Government
transformation

Interactive/external
integration

Transactions

Some

Publishing/ basic
interactivity

Many

NSW

Most

Information
publishing

Depth of relationship with customer

**A cautious approach
has been adopted.**
The current position has been achieved while adopting a deliberate strategy of not being at the 'bleeding edge' of the Internet.[14]

It also recognises that:

Fully fledged e-government will be neither quick nor easy to achieve…. Governments have to be more cautious, they have to take more care to take people with them, they are more accountable for the money they spend, and the sheer size of their operations dwarfs all but the biggest global companies.[15]

There is a broad expert consensus that e-government should, in the words of Jay Nussbaum of Oracle:

Start small, scale fast, deliver value.

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[13] Model adapted by the Audit Office from various e-transition models developed by Deloitte Touche Tohmatsu, the Gartner Group and KPMG. Assessment of NSW situation made by the Audit Office.
[14] Advice to the Audit Office by central agency CEOs, December 2000.
[15] Economist Magazine, *Government & the Internet*, 2000.

It is now time to scale fast …

It is now some four years since the *Blueprint* and the *connect.nsw Strategy* were issued. The challenge in NSW, and for most governments, will be now to 'scale fast' in order to deliver value.

… but a number of impediments need to be addressed.

To move into this next, more difficult phase in a substantive way presents a number of major challenges. Many of these are common to public sectors, and the pace at which they are resolved may well dictate whether NSW will be among the leaders or the followers; and the extent to which e-government opportunities are effectively leveraged.

The following chapters explore some of the issues that need to be addressed in order to accelerate progress and deliver the Government's 'leadership' vision in the foreseeable future.

Renewed efforts may be required to resolve them in a timely manner.

As will be seen, there are initiatives in place to address many of these issues. But some of the issues are well entrenched, and renewed efforts may be required to resolve them in a timely and comprehensive manner.

3. Directions, guidance and accountability

Clear directions, effective guidance and strong accountability arrangements are necessary prerequisites to leverage the opportunities and manage the risks of e-government.

3.1　Key initiatives

Key initiative	Description
IT Blueprint and connect.nsw	Vision, strategy and an implementation framework developed and published.
OIT	Office of Information Technology (OIT) established to drive the use of technology to improve the development and delivery of government services to benefit citizens, business partners and employees and to enhance the social and economic development and wellbeing of NSW.
Management structure	Introduced to oversight implementation and coordinate activities.
CEO/CIO Forums	Regular and ongoing communication with Chief Executives and Chief Information Officers.
Guidelines	To assist agencies with implementation issues.
Cross agency projects	Several initiated and/or commenced.
Panel contracts	For infrastructure and services. Established to reduce system disparity and promote information sharing between agencies.
Targets for ESD	Reporting regime established.
ServiceNSW	A government portal which adopts a portfolio/ functional structure.
ICT censuses	Conducted in 1996 and 1998.
Networked communities	Series of projects/initiatives to increase access to and use of the Internet by rural and remote communities.

Source: central agency documents.

3.2　Implementation in action

3.2.1　Strategic direction

Better practice

- a unified direction for e-government is set, with clear articulation of objectives and plans which provide a road map for moving to the vision

- staff understand the move toward the e-government model, its importance and what their roles and expectations will be under the new model.

Agencies are not always clear about directions …

Despite central agency actions to date, not all those responsible for implementation in agencies have a sufficiently clear understanding of the move towards e–government and the implications for their agency and activities.

Key common issues for NSW agencies	
▪ Strategic directions	Overall vision is clear but need better to understand how it is planned to get there and by when – and what is required of agencies. Not aware of a 'master plan'.
▪ Leadership vision	Leadership vision not consistent with limited funding, and slow speed at which sector-wide impediments are being resolved.

In this regard the following extract from the minutes of the CEO Standing Committee on Information Technology is of relevance:

> Key issues of cross agency importance from the (major agency) perspective were clarity in overall NSW Government information and communications technology directions and frameworks...[16]

… and are struggling with translation into action.

The Audit Office is of the view that most agencies are struggling with the translation into action of the Government's high level strategic directions as outlined in the *Blueprint* and *connect.nsw*. Agencies expressed strong views that further clarity and guidance is required.

Stakeholders also expressed uncertainty about NSW e-government directions.

Stakeholder views
Stakeholders consistently indicated the need for more sector-wide leadership, particularly in setting standards, promoting e-commerce and helping to bridge the digital divide.

Several key planning initiatives, including a program plan, were identified in the Implementation Framework as being critical to the success of *connect.nsw*. These planning initiatives did not proceed, and instead internal plans were prepared for each project.

With the benefit of hindsight, the foreshadowed planning initiatives may have assisted agencies to better understand directions.

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[16] CEO Standing Committee on Information Technology, Minutes of meeting of 27 April, 2000.

Agencies have focused on ESD, but quality and process redesign have often been lower priority.

Uncertainty in overall directions has encouraged agencies to focus on electronic service delivery, where targets and a reporting framework have been established. For some agencies, e–government is considered no more than ESD. And the focus of many agencies has been chiefly on quantity. The quality and value of these services, and redesign of internal processes, have for many agencies been of limited concern. As recently put by McKinsey and Co:

> … the real value of e-government derives less from simply placing public services online than from the ability to force an agency to rethink, reorganize, and streamline their delivery before doing so…[17]

Foreshadowed initiative
OIT has commissioned the development of an enhanced strategic ICT directions statement.

The preparation and publication of a directions statement may assist in clarifying directions, particularly if it provides a 'road map' for getting to the vision in line with better practice.

3.2.2   Driving change

Better practice
▪ incentives for the adoption of e-government encourage agencies and organisations to shed traditionally reactive, bureaucratic, 'play it safe' habits
▪ incentives promote the redesign of processes to take advantage of potential cost savings and not merely moved as-is to the Internet
▪ agencies are held accountable for achieving the savings possible through process redesign.

Incentives for reform are not adequate …

There is scope to enhance incentives to promote the substantial and difficult reform processes necessary to deliver significant improvements to public sector performance, both within agencies and across the public sector. In particular, there is a need to address tendencies for risk aversion still inherent in the public sector.

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[17] The Mckinsey Quarterly, 2001, No 2, *Online tactics*.

Under current arrangements in NSW, agencies are tending to offer new electronic services to clients, but not to use the technology to significantly reform the way they carry out their activities.

Global example
The Victorian Department of Natural Resources and Environment redesigned its procurement system, reducing steps from 15 to 4 and costs by 70% - saving over $1m in its first year.

… and agencies need to be held accountable for achieving the potential.

Agencies need to be held more accountable for taking advantage of the improvements made possible through e-government.

Key common issues for NSW agencies	
▪ Risk aversion	Agencies not held accountable for failing to make the savings and improvements made possible by technology. They are, however, penalised if they try and fail.
▪ Incentives	Lack of incentives to pursue fundamental reforms such as process redesign or cross-agency projects.
▪ Agency independence	Strong agency independence, and within this accountability of staff to CEOs. Not conducive to cross agency arrangements unless yours is the 'lead agency'.
▪ Entrenched silos	Territoriality remains strong, both between and within agencies.
▪ Entrenched work practices	Lack of commitment to fundamental change to work practices, particularly from middle management.

An external driver will be needed.

A strong external driver may be required to enhance the focus of agencies on the more fundamental changes possible through e-government.

Global position
▫ Public services generally do not face the threat of competition to the same extent as private sector organisations.
▫ Resistance to organisational change is a significant impediment.
▫ Risk aversion remains strong in public sectors the world over.
▫ Getting bureaucrats to change traditional approaches and embrace substantial change is a major challenge for governments.

The situation in NSW is, therefore, not uncommon. Governments worldwide are wrestling with the question of how best to lead towards seamless government.

Expert opinion
▦   All governments face the challenge of getting the balance right between a light-handed vs. prescriptive approach in moving agencies towards e-government.
▦   This challenge is made more complex in an era in which CEOs have greater accountability for their agency's performance, whilst a key benefit for an e-government customer/citizen will be the convenience of identifying and obtaining information and services without the need to know (or learn) the structure of government.
▦   The need for cross-agency (and cross-jurisdiction) collaboration at all levels of government is critical.
▦   Relentless pressure will be required - as well as some of the carrots and sticks that keep people going in the private sector.[18]

Central agencies, in particular OIT and Premier's Department, need to be given greater leverage to drive integration and fundamental reform. Recent cross-agency initiatives such as *connecting.business*, where the project is to be managed by OIT with the weight of Cabinet behind it, may hold out a useful model which could be replicated and expanded. Greater influence over funding allocations is another option for increasing leverage.

The saying that 'you manage what you measure' is evident in ESD. This lesson may need to be applied more broadly to drive the fundamental reforms implied by the vision.

Recent initiative
As the report was being finalised, the Premier established the Chief Executive Officers' (CEOs) eGovernment Committee to monitor, report and oversight across agency policies and programs. Its aim is to ensure the public sector is united in achieving enhanced service delivery and reform initiatives in this area. The CEOs eGovernment Committee replaces the former Chief Executive Officers' Standing Committee on ICT.

3.2.3   Central agency support

Better practice
▪   a central authority is responsible and accountable for driving reform
▪   the authority has the political clout and the funding to ensure cross-agency cooperation, current working practices are re-thought and to impose technology standards.[19]

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[18] Economist Magazine, *Government & the Internet*, 2000.
[19] ibid

Responsibility for progressing e-government is shared between OIT (the lead agency), Premier's Department, Treasury and the Department of Public Works and Services.

Key common issues for NSW agencies	
▪ ICT reform or reform using ICT	OIT is responsible for ICT, but if e-government is about reform shouldn't Premier's Department be driving it? This would give it more clout and send the message it is about reform.
▪ Central agency demarcations	Not always clear who is responsible for what in central government.

Responsibility for e-government needs to be reviewed.

Agencies would benefit from understanding better who is responsible for what in order to allow them to more readily seek advice on coal-face implementation issues. To move into the next, more fundamental change phase it may be appropriate to review where primary responsibility for oversighting e-government should reside.

Central support needs to be enhanced.

As discussed throughout this report, it is apparent that the current central capacity to provide assistance to agencies is being stretched.

Key common issues for NSW agencies	
▪ Central government support	Sought more practical, hands-on assistance than presently available – could only see the demand increasing.

If anything, demand for such assistance is likely to grow. Increased support, assistance and guidance to agencies is required.

ICAC Research

Many people emphasised the importance of developing a coordinated central government approach to assist agencies across the public sector. One suggestion was establishing a 'centre of excellence' able to:

- ▪ assist agencies in developing and assessing tenders and contracts and advise on contract management in IT, and

- ▪ establish and maintain 'cutting edge' knowledge of IT security by drawing on the range of agency experience and assisting the sharing of experiences.

Foreshadowed initiative
As this report was being finalised, OIT advised that a Multi Agency ICT Development Centre was being established to assist agencies to develop special e-business projects. The first two programs are Online Business Licensing and Human Services Sector Better Service Delivery.

3.2.4 Project and risk management

Better practice
▪ e-government risks are understood and managed rather than avoided
▪ there are adequate skills available to effectively manage complex and/or large scale e-government projects.

There appears to be limited knowledge at line agency level of the risks associated with increased use of the Internet and related technologies, and how best to manage them.

Key common issues for NSW agencies	
▪ Project management	Lack of skills in agencies to effectively manage major ICT projects – leads to cost over-runs and failure to deliver expected benefits.
▪ Risk management	Lack of knowledge of, and skills in, ICT risk management in agencies.

Insights gathered during this audit, and recent research conducted by the ICAC, both tend to indicate that agencies in NSW do not generally exhibit comprehensive, rigorous and systematic approaches to e-government project and risk management.

Global position
🖥 Global experience suggests a possible wasteland of future e-government failures unless steps are taken to improve project and risk management in agencies.

3.2.5 Knowledge sharing

Better practice
▪ mechanisms are in place to effectively share knowledge and experience about e-government issues
▪ duplication of effort and costs are minimised.

Knowledge sharing can be improved.

There is scope to improve sharing of better e-practices across government.

Key common issues for NSW agencies	
▪ Duplicating effort	Scope for more/better sharing of knowledge, skills and experience across the sector.

Minutes of the CEO Standing Committee, 4 September 2000 noted:

> Opportunities for knowledge transfer (eg experiences, expertise, systems, software, business process redesign) across government should be expanded. OIT noted that it already holds regular IM&T forums for agency Chief Information Officers/IT Managers and has established an agency liaison team to work with agencies and share knowledge. However, it was noted that opportunities to expand knowledge transfer across the public sector need to be enhanced.

> The need to improve knowledge transfer (eg asset management, e-procurement, business process redesign, system development) across the public sector was raised by a number of members ...

Foreshadowed initiative
Five better practice case studies were recently published on the OIT website.

The promulgation of better practice in this way is a positive step. However, given the size of the task and the demand and scope conveyed to the Audit Office by agencies it would seem that more still will be required. For example, there may be value also in:

- expanding the focus of central efforts beyond CEOs and CIOs

- catalysing informal, self-sustaining 'networks'

- putting the technology to better use to share information.

Agencies themselves also need to share responsibility for knowledge transfer for the good of the sector as a whole.

3.2.6   Legal

Better practice
▪ a legal framework is in place which facilitates the implementation of e-government reforms and which gives legal standing to electronic transactions.

The legal framework is still in development …

The legal and regulatory framework for electronic transactions is still in development, as is the case in most other jurisdictions.

Key common issues for NSW agencies	
▪ Legal issues	Lack of understanding of the legal status of e-government (particularly e-commerce) – concern that some legislation, rules and regulations may entrench traditional approaches.

… and agencies are hesitant.

Many agencies are uncertain about the 'legality' of e-government initiatives in place and planned. The *Electronic Transactions Act* is yet to be proclaimed. Agencies are also concerned that Treasury Regulations, Treasurer's Directions and other legislation may embed traditional processes and procedures and impede implementation of redesigned, electronic processes.

For example, the NSW Department of Public Works and Services had to obtain an exemption from the Treasurer's Directions to implement its new integrated management system.

There is a need to clarify issues of legality for agencies. At present it is impeding e-government.

As yet there has been no comprehensive and systematic review of legislation across government to remove the well-entrenched paper-based bias.

3.2.7   Monitoring, review and reporting

Better practice
▪ targets are established, results are measured and agencies are held accountable for meeting goals
▪ the benefits of e-government are measured and monitored and reported transparently.

Monitoring, review and reporting need to be improved …

Mechanisms to monitor, review and report publicly progress with, and the benefits realised from, e-government are not sufficiently robust to provide adequate assurance, identify shortcomings and form the basis for remedial action.

As discussed in chapter 2, the reporting framework for ESD reports progress against projects nominated by each agency. There is now a need to focus on the impact and quality of ESD initiatives within the framework.

Expert opinion
▢ It is important to have robust evaluation strategies in place to ensure that services are as customer-focused and effective as possible.

… and targets beyond ESD established.

Targets for the *Integrated Government, E-commerce* and *Networked Communities connect.nsw* strategies are as yet not set, and mechanisms to monitor and evaluate progress are yet to be established.[20]

There would be benefits to the Government and the public in establishing a more robust and systematic approach to monitoring, evaluation and reporting of overall progress toward the vision and the overall benefits from the Government's investment in ICT.

Targets, timeframes and milestones should be established for key, priority issues, both for individual agencies and overall. The expectations of an agency should reflect its capacity to implement e-government, and cluster requirements.

Foreshadowed initiative
A cross-agency working group on benefits realisation recently presented a paper to the CEO Standing Committee on ICT. A pilot project has been endorsed to investigate the information collected by agencies and how this could be aggregated and analysed on a whole of government basis.

The Government of the United Kingdom has recognised the importance of monitoring and reporting transparently progress as a key strategy in driving forward e-government.

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[20] Some evaluation has been undertaken on particular initiatives and there was a review of the initial connect.nsw funding program. A further review is planned. These have not been reported publicly.

Global example
💻 The UK Government has appointed an e-envoy to take a broad and critical view on Internet issues within government.
💻 The e-envoy is separate from and additional to the Department and Minister responsible for ICT.

3.2.8 Digital divide

Better practice
▪ strategies to raise client use of the Internet and related technologies are implemented
▪ traditional service delivery channels are retained so that clients are not disenfranchised.

There is concern about a 'digital divide'.

For some time, research has sounded warnings about the emergence of a 'digital divide' between rich and poor, well-educated and under-schooled, able bodied and the disabled, the young and the old. More recently, research has emerged which challenges the impact of the digital divide in practice. Even so, it is clearly an issue deserving close attention in the drive towards e-government.

Much e-government potential lies in online interaction between government and stakeholders. But unlike the private sector, the public sector cannot disenfranchise elements of its constituency. It cannot move services to the Internet if its constituents are not willing and able to use the Internet.

Expert opinion
💻 The 'digital divide' is an issue that all governments need to consider in their delivery of online services.
💻 The non-computer literate, the aged, poor, those with disabilities, and people in rural and remote areas must be assisted.

At a whole of government level, there is evidence of consultation with representatives of stakeholders. Strategies to address the digital divide have focused on making ESD initiatives available to stimulate demand, and addressing issues of access for rural residents.[21]

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[21] See summary of current programs in chapter 2.

Additional government-wide strategies to increase the access and capability of the urban poor, aged, disabled and less well educated could be considered.

However, there is little evidence of research and dialogue taking place between individual agencies and their particular stakeholder groups. In general, agencies seem to have accepted the 'digital divide' as an impediment. This could undermine the potential savings from e-government, as well as presenting significant service effectiveness issues. It is an issue which agencies must address urgently.

3.2.9 Government portals[22]

Emerging portal technology may be an enabler of integration …

Better practice
▪ service delivery is designed around what the citizen wants to do, rather than around the structure of the department/agency.

Even the most advanced governments continue to struggle with the challenges of trying to deliver services that require integration with more than one government agency. There is an emerging recognition that the breaking down of industrial age structures may be neither feasible nor required for e-government success. A way forward may be through sophisticated 'intentions-based portals' (see description below).

Expert opinion
💻 Today's e-government portals are unsophisticated gateways that do little more than direct the visitor to another government website.
💻 A sophisticated 'intentions-based portal' is the key to overcoming one of the most significant hurdles to e-government - lack of cross agency cooperation.
💻 The leaders in e-government will be those that fully exploit the portal model.

… but this technology is more advanced than current portals.

ServiceNSW is the NSW Government portal. It compares favourably to most government portals, but shares the limitations identified by experts.

A sophisticated 'intentions-based portal' can:

▪ create virtual agencies, clustering functions related to customer needs regardless of the responsible agency or

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[22] A portal is a single site which allows citizens and business to interact with several government departments in one visit.

branch of government, and overcoming lack of cross agency cooperation

- enable government to concentrate on customers needs rather than what agencies want to deliver

- provide an infrastructure upon which agencies can build their e-government initiatives

- accommodate multiple channel access (eg telephone, computer, mail)

- assist in enhancing the management of customer relationships, including streamlining of communication, tailoring offerings and minimising duplication of information gathering.

3.3   Audit observations

Governments worldwide are struggling with the difficult task of moving traditional bureaucracies into the information age.

Much work has been done …

… but the rate of progress does not appear to match the Government's expectations.

Much hard work has been done to guide the NSW public sector into the information age. However, at the agency level progress is patchy in moving beyond basic ESD for simple services. And despite the ambitious intentions for action expressed by the Government, at this point the Audit Office has gained a clear impression that many agencies have been sluggish in responding.

Strategies adopted and initiatives announced are pushing in the right direction. But many have only recently commenced, or are as yet only planned. They are generally also of limited scale, when the challenge is immense.

Efforts need to be expanded and accelerated …

To move forward, further clarification of directions, more guidance and a strengthening of accountability for delivering the potential of e-government will be required.   Constant re-examination of approaches needs also to occur, with sophisticated intentions-based portals emerging as a strategy being adopted by leading jurisdictions.

… and this is the responsibility of all leaders in the sector.

This is not the responsibility of OIT alone.   Other central agencies, all CEOs and for that matter all in leadership positions across the sector must take responsibility.

Unless efforts are renewed, the NSW public sector runs the risk of delaying the implementation of e-government longer than necessary, with the consequent impact on efficiency and effectiveness.

3.4 Recommendation

Enhance directions, guidance and accountability to take the sector into the next, more challenging phase of e-government.

Actions to be considered include:

- articulate a clear and comprehensive plan

- reaffirm and, where not present, establish priorities, targets and timeframes for agencies and for e-government overall

- provide targeted support to agencies based on their capacity to implement e-government

- provide adequate incentives for agencies to implement more fundamental reform

- establish comprehensive, coherent, robust and transparent measurement and reporting of e-government progress

- give central agencies greater leverage to drive e-government

- put in place a legal and administrative framework which validates electronic transactions and removes paper-based bias

- ensure agencies adopt comprehensive, rigorous and systematic approaches to project and risk management

- extend efforts to enhance access to and use of Internet technologies by disadvantaged groups.

4. People management

The competency of the individuals developing, implementing and supporting technology drives the efficiency and effectiveness that can be achieved through e-government.

This chapter examines the impact of the public sector employment and management frameworks on e-government in NSW and the difficulty the sector is facing in attracting and retaining skilled ICT staff.

4.1   Key initiatives

Key initiative	Description
Memorandum of understanding (MOU) between the NSW Government and key public sector unions (March 2000)	Provides salary increases and commits the parties to work towards reform of the NSW public sector industrial relations and human resource management frameworks. Areas of focus include: ▪ employment mobility and flexibility arrangements ▪ simplified and contemporary legislative framework ▪ increased online service delivery and associated job redesign ▪ better use of IT resources ▪ innovative schemes to improve and reward employee performance. Working parties have been formed to progress issues identified in the MOU.
Premier's ICT skills strategy	The ICT Skills Action Plan has been developed to address shortages in ICT skills. The ICT Industry Skills Consultative Group was established to advise on the development and implementation of the Plan. An ICT Skills Unit has been established to coordinate implementation.
Electronic Self-Service (ESS) Delivery for Personnel and Payroll Transactions Project	Project designed to realise the potential benefits from applying ESS technology to redesign personnel and payroll processes. Report and guidelines have been issued. Loans (with an interest component) are available for implementation. Savings, after repayment of the loan, can be applied to defray the cost of MOU salary increases. Presently being piloted in six agencies (two operational, four in planning). Guidelines for applying process redesign in this project are in preparation.

Key initiative	Description
Public Sector Management Course and Executive Development Program	Courses aimed at middle and senior managers, with technology-related components.
Workforce Profile Project	Collects and analyses employment-related data on staff across the public sector.
Redeployment and redundancy guidelines	Redeployment is the principal means of managing displaced employees. Agency CEOs are responsible for the redeployment of displaced officers. Voluntary redundancy is available in limited circumstances where there is little prospect of redeployment in a reasonable time. The costs of redundancy are borne by the employee's agency. There are no forced redundancies. The Workforce Management Centre has been established in Premier's Department to assist agencies and displaced employees.
Various guidelines and better practice examples	To encourage and promote: ▪ innovative and flexible workplace arrangements in order to better meet customer expectations ▪ appropriate and efficient use of technology.
Premier's Public Sector Awards	A specific category for innovative use of the Internet for service delivery was introduced in 2000.

Source: central agency documents.

4.2　Implementation in action

E-government has the potential for massive change which needs to be managed.

The new technologies have the potential to significantly change the way people work and the skills required of staff. Change of the scale possible from e-government (especially redesign of business processes and models) is a major challenge for any organisation to manage. Major cultural issues need to be addressed. Significant resistance to change is often encountered.

4.2.1   HR/IR Frameworks

Better practice
▪ legislative and employment frameworks provide the flexibility to implement and manage changes arising from e-government
▪ staffing requirements are regularly evaluated to ensure the system has a sufficient number of competent staff, based on business, operational and information technology needs
▪ training and support keep employee skill sets current with technology developments
▪ incentives encourage staff acceptance and implementation of technology developments, business process redesign and the need to re-skill for the new work arrangements
▪ employment mobility arrangements allow the matching of employee skills to demand.

The NSW HR/IR framework does not yet reflect contemporary standards.

Human resource management and industrial relations policies, procedures and practices in the NSW public sector present particular challenges for achieving the potential benefits of e-government. Key issues identified by the Audit Office as warranting further attention include:

▪ a complex public sector management framework which does not yet reflect contemporary standards and provides impediments to flexible service delivery[23]

▪ limited employment mobility and flexibility to provide integrated services[24]

▪ an array of outdated industrial instruments, a job-classification framework which does not yet reflect information age requirements and limited incentives to encourage innovation and adoption of new work arrangements[25]

▪ the absence of external competition, for some agencies, to drive change

▪ limited training of staff in the new skills required.

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[23] This was recognised in Appendix A of the Memorandum of Understanding between the NSW Government and Health and Research Employees' Association, NSW Nurses' Association, Public Service Association of NSW, Labor Council of NSW 2000.
[24] ibid
[25] ibid

HR/IR issues are major impediments.

Agencies considered that human resource issues associated with change management were an impediment to e-government uptake, and process redesign in particular.

Case studies

- Planning in one agency had identified the opportunity for improved customer service and process improvements. But the HR/IR issues were assessed as extremely difficult and costly to resolve. The planned improvements did not proceed.

- New 'state of the art' business processes were put in place in a business unit of a large agency. This displaced 30 staff. The skills they have are no longer in demand anywhere. Attempts to redeploy them have therefore been unsuccessful. Voluntary redundancy was being considered, but given the lack of demand for such skills, it was unlikely that all would take it. Retraining in the skills in demand today is not viable. The staff were being paid, but were doing nothing productive.

This is not, however, a problem limited to the NSW public sector.

Global position

- Governments the world-over are facing significant challenges in managing the human resource issues associated with change of the scale possible through e-government.

Displaced staff could be better managed.

Whole of government management of displaced staff is not working to the satisfaction of agencies.

Key common issues for NSW agencies

• Whole of government management of displaced staff	Insufficient capacity in many agencies to redeploy or retrain displaced staff. No forced redundancy policy limits options for agencies. Agencies expressed concern for shouldering costs of displaced staff.

A consistent view expressed by many agencies was that agencies are looking to central government to take greater responsibility for managing (and funding) displaced staff. This includes the re-skilling of displaced staff. The issue is of particular importance to smaller agencies, as their scope to redeploy staff is limited by their size.

4.2.2 Management skills

Managers require new skills.

The changes possible through e-government have the potential to impact particularly on middle management.

ICAC Research
There was no easy way to first assess and then to increase the knowledge levels of the most senior managers who are responsible for successfully negotiating the transition - there may be significant gaps in the levels of manager knowledge.

Foreshadowed initiative
Stemming from the ICT Skills Action Plan, the Government is to review options for retraining displaced workers and middle management for ICT related careers.

4.2.3 Specialist ICT skills

Better practice
▪ new, more flexible salary scales and other incentives to compete for highly skilled people are available
▪ ongoing recruitment of qualified employees
▪ sharing of scarce skills across government
▪ use of consultants and contractors to supplement public sector skills, with mechanisms to transfer skills and knowledge to the sector.

Specialist ICT skills are in short supply.

The NSW public sector is having difficulty attracting and retaining skilled ICT staff. This is a world-wide problem, not confined to the public sector.

Global position
🖥 Specialist ICT skills are in short supply.
🖥 Government employment arrangements in most jurisdictions are not as flexible or attractive as the private sector.

But NSW public sector employment arrangements present particular difficulties.

Key common issues for NSW agencies	
▪ Skilled ICT employees	Public sector employment arrangements do not allow agencies to compete with the private sector for skilled ICT employees.
▪ Contracting out	The rules for contracting for scarce ICT skills are much more flexible than public sector employment arrangements.
▪ Loss of skills	Once the sector 'trains up' an ICT employee, they are poached by the private sector.
▪ Managing contractors	Agencies are often beholden to contractors and no longer have the right skills to ask the probing questions and monitor effectively.

Agencies turn to contracting, which is less restrictive, but contractors are not always well managed.

Agencies regularly turn to contracting to fill the void. They are able to offer more competitive rates through contracting than through public sector employment arrangements. However, there are risks with contractors/consultants that are not always well managed, including:

▪ lack of organisational knowledge

▪ capture by a particular solution or provider

▪ lack of knowledge transfer to the agency at the conclusion of an engagement

▪ ownership of intellectual property, systems, solutions, information etc

▪ flexibility of contractual arrangements to deal with unforeseen circumstances.

ICAC Research

The knowledge required for the changes is difficult and expensive for public agencies to access: it involves the risk of what some call 'consultant capture' and/or private poaching, at salaries the sector cannot pay, of the most skilled professionals.

Similar issues are being confronted in other jurisdictions.

Global position

🖥 The lack of IT skills in the public sector is often addressed by the use of consultants or contractors.

🖥 But it takes talent and knowledge to manage the consultant/contractor, and such skills are also often not available. This creates an assymetric relationship.

Some NSW agencies no longer have the internal capacity to properly manage specialist IT consultants/contractors.

Foreshadowed initiatives
A survey to ascertain the current and likely future demand for ICT skills in the sector, and skill sets being obtained through consultants/contractors, has been undertaken. The results of the survey will assist in the development of a public sector ICT skills development program.
A course on effective contract management is being developed in response to an identified sector-wide gap in contract management skills.
Consideration is being given to incorporating guidance and case studies into sector IT guidelines to assist agencies apply good human resource management and industrial relations practices.

4.3   Audit observations

Like NSW, governments everywhere are confronting major challenges in managing people-issues associated with public sector rejuvenation.

HR/IR issues are impeding change.

Agencies in NSW often do not effectively manage the people issues associated with workplace reform. Perhaps agencies are opting-out of their proper obligations for managing HR/IR issues as part of large-scale change management. Perhaps rigidities in the frameworks and processes present barriers. Perhaps the issue is bigger than some agencies can handle. Evidence suggests all these may be true.

The need for change has been recognised …

The need for change in some of these areas has been recognised by central government and processes to improve people management have recently been initiated. But the problems are significant and have been evident for some time. NSW will need to move at a greater pace and scale on these issues if it is to match its rate of progress with its aspirational ambitions. The ICT skills issue is illustrative.

… but efforts need to be accelerated and enhanced.

Response to projected ICT skill shortage	
Late 1998	▪ ICT industry identified a gap between the supply and demand for specialist ICT skills of approximately 72,000 new jobs in NSW by 2003-04
August 2000	▪ Government hosts an ICT Skills Forum
March 2001	▪ ICT Skills Action Plan launched
May 2001	▪ Survey of public sector skills shortages completed.

At the current rate of progress, the initiatives in place will take some time to bear fruit. They also will not address all of the issues. The redeployment and redundancy policy and the remuneration of ICT employees are cases in point.

More must be done, and more quickly, both at central and the agency level for the real benefits of e-government to be harnessed in the near future.

4.4 Recommendation

Ensure that the sector has access to people with the necessary knowledge and skills to progress e-government and is able to deploy them efficiently and effectively.

Actions to be considered include:

- fast-track the implementation of initiatives to increase employment flexibility and mobility across the sector

- urgently enhance incentives to attract and retain skilled ICT staff

- improve the management of workplace reform and staff displaced by change

- improve the education and re-skilling of management

- develop a capacity to provide greater practical support to line agencies and promote improved sharing of knowledge and experience across the sector.

5. Funding and expenditure

E-government offers much in potential savings and service improvements. But to achieve those benefits, significant up-front investment is required.

Progress towards e-government maturity depends to a great extent on the level of infrastructure and technology investment.

This chapter focuses on:

- the level of funding and expenditure
- processes for funding
- monitoring of results.

5.1   Key initiatives

Key initiative	Description
Connect.nsw capital funding pool	A pool of funds has been established to fund (or part-fund) ICT capital projects. Criteria are published, and agencies are invited annually to nominate projects for funding. Projects are short-listed by the OIT and CEO Standing Committee. Detailed business cases are sought for short-listed projects. The CEO Standing Committee subsequently makes recommendations to the Minister.
Review of major projects	As part of the annual budget preparation process, agencies are required to submit to OIT a business case for each new ICT project involving expenditure of $500,000 or more. OIT assesses these proposals against set criteria to ensure they align with Government ICT directions and priorities. OIT advises the assessment results to the CEO Standing Committee on IT. The Committee makes recommendations to Treasury which makes recommendations to the Budget Committee of Cabinet for consideration.

Source: central agency documents.

5.2   Implementation in action

5.2.1   Level

Better practice
▪ funding methods and levels align with citizen expectations and stated objectives
▪ funding for initial development as well as ongoing maintenance and operations is adequate
▪ funding for innovative projects is available.

Agencies consider up-front funding inadequate.

Agencies were strongly of the view that there was insufficient up-front funding available to allow them to make the investment required to properly implement e-government.

Key common issues for NSW agencies	
▪ Up-front funding	Inadequate funding up-front. Encourages small local projects, system patching and piecemeal solutions. Little recognition that you have to 'invest to save'.

Cost of 'bridging the gap'

Aggregate cost of e-government has not been estimated.

At the macro level, the Audit Office found no evidence of an attempt to assess methodically how much it would cost to bridge the gap between the position of the sector at the time the *Blueprint* and *Strategy* were released, and the Government's vision of a seamless, integrated government.

Further, there does not appear to have been a sector-wide assessment of the funding required to deliver the four underlying strategies of *connect.nsw* (as discussed previously, there is no overall plan for the *Strategy*).

Given the enormity of the issue, a macro funding assessment might have been expected. However, if the factors were regarded as too complex and numerous, then a staged approach might have been appropriate. There is some evidence that this approach was preferred. However, even so it was not apparent to the Audit Office that 'staged' targets and timeframes were established and that the required funding to meet the targets/timeframes was estimated.

Funding for *connect.nsw* was provided initially to allow assessment of feasibility. But the scale and scope of this funding has been modest (see later) given the Government's leadership vision. The Audit Office has not been advised of any assessment of the overall funding required to implement the vision in determining the allocation to *connect.nsw*.

Total ICT expenditure

Total ICT expenditure is not measured …

Total government expenditure on information and communication technologies is not measured. Censuses in 1995-96 and 1997-98 obtained information from agencies on their ICT expenditure, but OIT considers the results to underestimate this expenditure. There has been no subsequent census. The Government Scorecard on Digital Progress – 2001 (provided to the Audit Office in March 2001) indicated that the NSW Government spends $620 million a year on IT. However, OIT advised that their 'best guess' estimate was $750 million in 1999-2000 and that they predict expenditure of $800 million in 2001-02.

The lack of certainty about the overall level of expenditure on ICT is one factor preventing the Government from being fully appraised of the overall return on its investment in ICT. The scope for improving monitoring, review and reporting arrangements was identified in chapter 3.

The following table tracks movement in ICT expenditure using the best information available to the Audit Office, ie census information for 1995-96 and 1997-98 and the 'best guess' estimate provided by OIT for 1999-2000.

ICT expenditure as a % of total government payments and net cash flows from investing activities			
Year	Estimated ICT expenditure ($m) **	Total Govt ($m)*	%
1995-96	600	31,084	1.9
1997-98	540	30,513	1.8
1999-2000	750	34,877	2.2

* Total payments extracted from Consolidated Financial Statements of the NSW Total State Sector, Statement of Cash Flows.
** Extracted from documents provided by OIT to the Audit Office.

… but 'best guess' suggests it has remained consistent.

As can be seen, ICT expenditure as a proportion of overall expenditure has been relatively consistent between 1995-96 and 1999-2000.

> **Expert opinion**
>
> ⌨ E-government requires substantial up-front investment. Agencies aspiring to leadership have stepped up their investments in ICT.
>
> ⌨ An international study conducted in 2000 found that 68% of governments planned to further step up IT expenditures in the following two years.[26]

Specific funding for e-government has been established …

Connect.nsw was established to specifically fund e-government initiatives in NSW. The Audit Office found that:

- there was approximately 300% oversubscription in 1999-2000 and 260% in 2000-01 to the *connect.nsw* capital pool fund

- the CEO Standing committee sought *connect.nsw* funding of approximately $150 million for the three years 2000-01, 2001-02 and 2002-03. The 2000-01 budget indicated that $30 million would be provided over these three years ($10 million per annum).[27]

… but it is modest.

The specific funding available for e-government is modest in comparison to some other jurisdictions with less challenging goals.

> **Global position**
>
> ⌨ The United Kingdom has allocated an additional one billion pounds over three years specifically for new e-government initiatives.[28]

McKinsey and Co. recently commented that the cost of e-government:

> … ranges from $30 million (US) for department-specific efforts to over $100 million (US) for a fully integrated service portal.[29]

An indicator of the tightness of funding for major ICT capital projects is that in 2000-01 only:

- one third of proposals 'highly recommended' by the CEO Standing Committee received funds

- one third of the capital project cost requested by agencies was funded.

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[26] Deloitte Research, *At the Dawn of e-government*, 2000, p 10.
[27] In the 2001-02 Budget, the foreshadowed $10m was increased by $2m.
[28] Correspondence with UK Office of the E-envoy.
[29] McKinsey Quarterly, 2001 No2 , *Online tactics*.

Information provided by OIT as this report was being finalised indicated that half of the 'highly recommended' proposals for 2001-02 received funding.

Innovative funding

There is scope for private sector financing …

Better practice
▪ options for innovative or alternative funding approaches made possible by e-government are identified, explored and pursued.

Innovative funding options involving the private sector offer scope for enhancing the limited resources available for e-government. Overseas examples demonstrate that innovative funding options involving the private sector and user charges are possible.

Global position
▯ Some overseas jurisdictions have used private sector companies to establish infrastructure and then recover their costs through user/transaction fees.

… but a Government position has not been communicated.

The NSW Government is yet to articulate a position on the use by agencies of innovative funding options involving the private sector. Agencies are neither encouraged nor discouraged from seeking such funding opportunities. Agencies are not clear whether they should be pursuing such options and generally do not, in line with the risk averse approach still prevalent in the NSW public sector.

5.2.2 Processes

Better practice
▪ standards are established for submitting information technology plans and proposals
▪ funding requests provide an assessment of value added by the new solutions - cost savings, a positive return on investment (ROI) or better service
▪ processes for funding ICT initiatives are flexible and able to respond to the rapid pace of technological change
▪ processes and systems exist for funding cross-agency projects
▪ funding is prioritised to ensure best value for money for the Government rather than for the individual agencies.

Connect.nsw

Connect.nsw funding processes are good …

The greater proportion of the *connect.nsw* capital funding program is deliberately set aside for cross-agency initiatives (approximately $5.1 million in 2000-01). The remaining program funding (approximately $4.9 million) is allocated by way of the *connect.nsw* capital funding pool. The process for allocating the pool:

- effectively communicates the criteria for funding

- ensures detailed proposals need only be developed for projects likely to be funded (through publishing criteria, discussions between agencies and OIT, and short-listing)

- provides quicker access to funds than the normal budgetary process (as the pool is pre-approved)

- provides funding in line with the recommendations of the CEO Standing Committee, informed by OIT

- requires agencies to report regularly on progress with implementation and the realisation of benefits.

Major ICT capital project proposals

… and far better than for major ICT projects, the vast bulk of ICT funding.

Approximately $333 million was allocated for major ICT projects (ie projects with projected cost over $500,000) in 2000-01. This compares to the $10 million provided through the *connect.nsw* program.

OIT effectively communicates ICT major project funding priorities to agencies. But as the following table illustrates, decisions about which projects will be funded are determined ultimately by broader Government spending priorities.

CEO Standing Committee recommendations and funding for major ICT projects (summary)		
	2000-01	**2001-02**
Projects highly recommended	54	63
Projects highly recommended which received substantially that recommended	18 (33%)	31 (49%)
Highly recommended which received nothing	24 (44%)	32 (51%)
Not recommended but funded	1	0
Medium priority but funded	5	5
Budget sector proposals not assessed but funded.	20	16

The broader funding priorities are not well communicated to agencies and there is no short-listing process. Therefore, some agencies are wasting resources on developing business cases which OIT rates highly in terms of the ICT priorities, but which are not funded.

Key common issues for NSW agencies	
▪ Funding decisions	ICT projects rated highly by OIT are not funded. Uncertainty about how proposals are ranked across government.
▪ Business cases	Substantial resources go into the preparation of business cases that receive no funding even if they are highly recommended by OIT.
▪ Flexibility and timeliness of the funding process	The traditional funding cycle and budgetary processes are slow, and not compatible with the speed of response required to effectively implement e-government. Change in technology is outpacing current resource allocation processes and procedures.

Major ICT funding needs to be more flexible and responsive.

Other issues with the current process include:

▪ 33% of projects assessed in 2000-01 and 13% in 2001-02 had a cross government focus

▪ the assessment by the OIT/CEO Standing Committee concentrates on the alignment of proposals with the Government's ICT policy directions. While OIT and Treasury review agency proposals for major ICT projects, evidence suggests that responsibility for assessing value for money is not clear and that neither seeks to ensure proposals represent best value for money

- there may be a year or more between the initial concept and securing funds for major new ICT projects

- if a project receives funding, Treasury may either reduce the agency budget by any savings predicted or allow the agency to internally redirect savings.   The basis for these decisions is often not clearly articulated

- non-budget dependent agencies are currently not required to submit their major projects to OIT for assessment even though the greater proportion of the State capital budget is spent by non-budget dependent agencies.   The extent to which these proposals align with government directions is therefore not clear.

Experts support agency concerns about the flexibility of the funding process.

> The traditional government decision making process – based on exhaustive analysis, deliberation, consensus-building, soliciting, and reviewing of bids – doesn't work well in the fast-paced world of IT. In fact, spending too much time on the front end seeking the 'perfect' solution can backfire; by the time you are ready to implement, the plan is already obsolete. You would do much better by staking out a course early on and gradually building in the capacity to change.[30]

OIT advises that it works with agencies to break down large projects into component parts, and thereby seek funding gradually as projects proceed rather than all up-front.

Foreshadowed initiative
Issues to be considered by the CEOs e-Government Committee will include a strengthened role in ensuring that ICT proposals assessed as high priority are funded; consideration of innovative funding models for ICT initiatives; and continuous improvement of financial management practices.

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[30] KPMG, *Leading the Transformation to E-government*, October 2000, p16.

5.2.3   Monitoring results

Better practice
▪ processes and systems for monitoring and accounting for expenditures on technology resources are in place.

Overall return on ICT investment is not measured.

There is currently no mechanism to measure or evaluate the overall benefits flowing from the Government's total ICT investment. In fact, the overall Government investment in ICT is not measured.[31]

5.3   Audit observations

The scarcity of resources is a major challenge most governments face in advancing their e-agenda.

The sector's need for funding has not been systematically assessed …

In NSW, to date, the scope to redirect funds within agencies and the extent to which investment up-front is required (based on agency readiness, availability of infrastructure, technology, skills etc) have not been determined in a systematic and comprehensive manner.

… but funding is clearly tight.

Indications are, however, that there is limited scope for obtaining up-front investments and that there are a large number of unfunded e-government projects which agencies wish to pursue and which the CEO Standing Committee rates highly.

Major project funding processes need to be refined …

The *connect.nsw* funding, whilst modest, appears to be being provided in a manner broadly consistent with better practice. The funding of major ICT projects, however, is via the traditional government funding mechanisms which agencies and experts consider to be insufficiently flexible and responsive for the information age. The traditional approach, which allocates funding to agencies, may also be less conducive to cross-agency projects than agency-specific projects. There may be some value in considering or piloting sector-based funding to promote cross-agency initiatives.

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[31] A foreshadowed initiative aimed at measuring benefits realised is outlined at 3.2.7.

There is scope to communicate better the priorities and the basis for funding decisions for major ICT projects. Agencies indicate they are somewhat confused when projects rated highly from an ICT perspective are rejected, but projects rated less highly are funded. On that basis, agencies would be wasting valuable resources on the preparation of unsuccessful business cases, which perhaps they may not if they better understood priorities.

… and return on ICT investment measured.

There would also be benefit in improving the information available to the Government and the public about the return on investment from ICT. At present, systems are not able to capture accurate and valid aggregate data on government investment and benefit realisation, preventing tracking and evaluation of progress.

As put by the Director-General of DITM in a speech to industry:

> To gain increasing credibility and construct a platform for sustainable change will require better utilisation of current funding in addition to additional resources. (May 2000)

Funding is increasing …

… but remains modest compared to the challenge.

This comment remains valid. The 2001-02 Budget has provided additional funding for electronic service delivery projects of at least $16m. This is significant compared to previous specific allocations for ESD. Nevertheless, it remains modest compared to the Government's aspirations. The fact that one major ESD project (online business licensing) has been allocated $7.4 million would seem to be an indicator of the resource intensity of major e-government projects incorporating significant process redesign and change management.

There will always be a disparity between funding requirements and funds available, and funding allocations need to be determined in accordance with overall Government priorities. But there is a need to ensure that Government objectives and funding are harmonised. Setting objectives without adequate funding will inevitably lead to disarray.

5.4   Recommendation

Ensure funding levels and processes are harmonised with the Government's aspirations for e-government.

Actions to be considered include:

- address the current mismatch between e-government funding levels and policy ambitions

- modify budgeting procedures to increase flexibility and responsiveness and channel more funding to cross-agency operations

- better communicate broader government funding priorities to assist agencies in determining whether to proceed with the preparation of detailed business cases for major e-government projects

- articulate a position on the use of innovative funding options involving the private sector and user charges.

6.   Security

E-government progress will be limited unless customers, stakeholders and agencies are convinced that information and transactions are secure and reliable.

Security systems should safeguard assets and information from loss, misuse, inaccuracies or alteration and prevent interruption to service delivery. In particular, security systems should assure:

- confidentiality – the message was not read by someone else

- authenticity – the message came from whom it says

- availability – the online service is available when clients want to use it

- integrity – the message was not modified in transit or replaced by a false message

- non-repudability – the sender cannot deny that he/she sent the message.

6.1 Key initiatives

Key initiative	Description
Guidelines (OIT)	Guidelines to assist agencies with implementation of security measures.
CEO/CIO Forums	Regular and ongoing communication with CIOs and CEOs. Forums have addressed security issues.
Agency liaison group (OIT)	1.5 equivalent full-time staff available to provide advice to agencies on technical issues, including security. OIT is able to provide general advice to agencies on information and information technology security, but does not have internal, in-depth information technology security expertise.

Source: central agency documents.

6.2   Implementation in action

6.2.1   Problems with putting security policy into practice

Better practice
▪ comprehensive approach including policies, education, physical protection, security software, and manual security procedures
▪ risk management approach to determining levels of security is adopted.

Agencies do not sufficiently understand security issues.

Despite guidance provided by OIT, agencies generally did not exhibit a keen understanding of e-government risks and the implications for security.

The most recent ICT census demonstrated deficiencies in agency processes for ensuring information security.

ICT Census, 1997-98
Information audit, data integrity and information security programs were not common in NSW public sector agencies.

A recent ICAC survey (2001) demonstrated a significant difference between the views of senior public sector managers and IT managers regarding the threats to information security and the effectiveness of agency responses, with IT managers being far more pessimistic.

ICAC Research
Twenty-eight percent of senior managers are uncertain about whether security measures were adequate.
There is an important IT manager vs senior management security confidence gap:
▪ 40% of senior managers are confident of the level of the agency's understanding of e-security issues, but only 22% of IT managers share the same confidence
▪ the higher the position the manager occupied, the less concerned they were about IT security risks. Lower level managers and IT managers, who deal with the system every day, were quite concerned and rated risks more highly.

General guidance has been provided.

Information security guidelines are made available to NSW government agencies by OIT. These guidelines were updated in February 2001 (previous guidelines were issued in 1997). The revised guidelines are based on the Australian/New Zealand Information Security Management Standard. The guidelines adopt a risk management approach.

Expert opinion
⌨ Information security should adopt a risk management approach, so that agencies adopt security arrangements appropriate to their risk exposure
⌨ There is no one size fits all solution to information security.

Security certification has been advocated, but not mandated.

In a recent memorandum, OIT strongly encouraged agencies to be certified to the Australian Standard for information security management systems. Certification gives other organisations some assurance about the efficacy of security arrangements. OIT is sponsoring a new panel contract which will include certification services. This is expected to be available for use by agencies later this year.

ICAC Report
▪ Security would be enhanced by stronger coordinated action by central agencies to mandate minimum requirements.
▪ Lack of high level technical knowledge and expertise in-house is a major problem in establishing and maintaining adequate security systems.
▪ Lack of coordination between agencies that have a 'whole of government' focus on information technology and security issues.
▪ There is benefit in providing more integrated information management and security policies and guidelines to public agencies.

The Minister for Information Technology recently announced his intention to take to Cabinet a proposed new framework for information security management across the NSW public sector.[32]

Foreshadowed initiative
Key elements of the proposed information security management framework include:
▪ all agencies to have an information security management process
▪ regular review by agencies of their information security management process
▪ agencies to appoint an information security manager
▪ all agencies to ensure employees understand and carry out effective security management
▪ a reporting regime similar to ESD to be established for information security management
▪ minimum levels of best practice to be established.[33]

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[32] Announced at ICAC symposium, *The need to know - e-Corruption and Unmanaged Risk*, May 2001.
[33] As the report was being finalised, OIT advised that Cabinet had recently endorsed (7 August 2001) a new framework for information security management across the sector.

Meeting standards requires scarce skills.

At the agency level, putting existing security guidelines into practice, and implementing the Minister's recent security announcement, requires substantial expertise. OIT is not expert in security, and agencies generally have to turn to consultants. Panel contracts are in place and more are being established. But agencies find difficulties in affording such expertise and in managing consultants when they do not have an adequate base level of knowledge.

Key common issues for NSW agencies	
▪ Guidance	Guidelines require application to the specific agency circumstances. This requires ICT security expertise.
▪ In-house expertise	Generally not sufficient. Specialist ICT skills are in very short supply.
▪ Practical assistance	Agencies sought practical assistance to put in place adequate security arrangements.
▪ Consultants	Most agencies need to turn to consultants. These can be costly and agencies may not have the skills to manage them effectively.

Agency capabilities to address security issues have not been assured.

The Audit Office found no evidence of an overall assessment of the capacity of agencies to bring their security arrangements up to the level recommended in the guidelines, or of dedicated funding for this purpose.

6.2.2 Limited approaches to security at the agency level

Regular security testing is not always apparent.

Agencies often do not have procedures for the regular testing of security arrangements. Of particular concern was the tendency for agencies to assume that information security arrangements (particularly technology-based arrangements) were adequate and working effectively rather than to test them.

Case study
One agency had engaged a contractor to set up an Internet enabled IT system. That contractor was required to install an effective security system. System testing by the contractor was an element of the contract. The agency did not have the expertise independently to assess the solution or to test security. For a time, there was no evidence of any system breaches or attempts. But when an independent testing program was introduced, breaches and attempted breaches were found to occur almost daily. The agency does not know if it had been breached during the period of 'blissful ignorance'.

Better practice

- security is built into business processes from the start and from the bottom up – not bolted on after the processes and systems have been designed and implemented.

In a number of instances, security seems to be an add-on rather than designed as an integral part of any new system.

ICAC Report

- Very rarely are new controls developed concurrently with the business technology.

- Corruption controls and the potential for future investigation requirements are rarely considered up-front.

6.2.3   Security risks from 'joined-up' government

Better practice

- interconnecting partners are required to adopt compatible standards.

Security has the potential to restrict integrated government. A system is only as strong as the weakest link. A security conscious agency may be reticent to increase the risks to its own systems by linking electronically with a less-secure partner.

ICAC Report

- Problems may arise with access to information systems of different organisations, conflicting agency approaches to issues such as privacy, client confidentiality, public safety obligations, client or commercial confidentiality and need-to-know principles.

- An obvious pitfall is differing policies on information across agencies …One department with robust anti-corruption measures in place may be let down by another with a more laissez-faire attitude to corporate ethics or less stringent security protocols.

6.3   Audit observations

Not all agencies are effectively managing security risks.

Agencies must all become competent in managing their operations and risks in the world of 'e'. The evidence is that while some agencies have addressed the issue, it is not happening sufficiently across the sector.

Initiatives were recently announced.

The recent ICAC e-corruption symposium highlighted the information security risks. And the challenge will increase as multi-media approaches and new technologies such as wireless infrastructure are adopted.

There is much reliance on consultants and OIT lacks the specialist skills.

There is at present significant reliance on consultants for information security management and a confessed lack of specialist expertise in OIT on this issue. The agencies that the Audit Office has consulted argued almost unanimously that OIT should develop a capacity to provide specialist advice to agencies on information security management. Such a service may be more in line with the Government's policy on limiting the use of consultants and may offer opportunities to better leverage experience across the sector.

E-government security needs to be an integral part of risk management.

But agencies themselves need also to take responsibility. Assessment of information security management risks needs to become an integral part of agency risk management. At the same time, agencies need to work more closely with each other to better share information and approaches.

6.4 Recommendation

Provide a greater emphasis to e-government security across the sector.

Actions to be considered include:

- closely monitor emerging security issues and keep agencies informed of developments in a clear, concise and timely manner

- ensure agencies have access to sufficient expertise and resources to effectively implement e-government security in line with OIT guidelines (and hence Australian Standards)

- hold agencies accountable for the competent management of their e-government security risks.

7. Privacy

E-government will be constrained unless the public is comfortable that the information they provide government is safe, secure and used for the intended purpose. At the same time, enhanced information sharing will be necessary to realise the efficiencies and better services e-government offers.

7.1 Key initiatives

Key initiative	Description
Privacy and Personal Information Protection Act	Act sets out privacy principles. Privacy NSW distributes guidelines and provides advice to assist agencies to understand their obligations under the Act. Agencies are required to provide privacy plans for review by Privacy NSW.
State Records Act	Act sets out record keeping requirements. State Records Office distributes guidelines and provides advice to assist agencies to understand their obligations under the Act.

Source: central agency documents.

7.2 Implementation in action

7.2.1 Privacy legislation

Better practice
- comprehensive policy and/or legislation specifies citizen's rights to privacy and requires that personal data be collected and processed only for legitimate purposes   - fair information practices including: - awareness – about what information is being collected, who is collecting it and how it will be used   - choice – in whether and how personal information is used, and choices should be easy to exercise   - data quality – ensuring information collected is accurate, complete and timely for the purposes for which it is to be used   - data security – protecting the information collected   - consumer access – to information about them and be able to correct it   - monitoring of how information is being used to make sure it is in compliance with the laws and the standards in place.

The Privacy Commissioner (supported by Privacy NSW) is responsible for carriage of the legislation. Privacy NSW is responsible for monitoring and ensuring compliance by NSW government agencies.

Privacy and Personal Information Protection Act - information protection principles (summary)
Personal information must be collected:
▪ for lawful purposes directly related to a function or activity of the agency and where the collection is necessary for that purpose
▪ from the individual to whom the information relates, unless otherwise authorised or the information is collected under an applicable exception
▪ in circumstances where the individual from whom it is collected is made aware of the fact that it is being collected, the purpose for collecting it, intended recipients of the information, whether the supply is mandatory or voluntary, relevant rights to access and correct the information and the name and address of the collecting agency and any holding agency and
▪ taking reasonable steps to ensure the information is relevant, accurate not excessive and up to date and that the collection does not unreasonably intrude on the individual's personal affairs.
Where agencies store personal information they must:
▪ ensure that it is kept no longer than necessary and disposed of appropriately, is protected by reasonable security safeguards, and protected from unauthorised use or disclosure when made available to a third party for a provision of a service to the agency
▪ provide individuals with sufficient information about the agency's holdings of personal information to enable the individual to exercise relevant rights
▪ provide individuals with access to personal information about themselves without unreasonable delay and expense and
▪ comply with individual requests to amend their personal information to ensure that it is relevant up to date, complete and not misleading.
Agencies proposing to use or disclose personal information must:
▪ take reasonable steps to ensure its accuracy before use
▪ use it only for the purpose for which it was collected, for a directly related purpose, for a purpose to which the individual has consented, where the use is necessary to prevent or lessen a threat to life or health or subject to an applicable exception
▪ only disclose it for a purpose directly related to a purpose of collection and where the individual is unlikely to object, where the individual has been put on notice that information is usually disclosed to the relevant person or body, where the disclosure is necessary to prevent or lessen a threat to life or health, or subject to an applicable exception
▪ not disclose personal information about a person's ethnic or racial origin, political opinions, religious or philosophical beliefs or trade union membership unless disclosure is necessary to prevent or lessen a threat to life or health or is subject to an applicable exception and
▪ only disclose information to individuals or organisations outside NSW under approved circumstances.

Agencies are not fully conversant with privacy legislation.

Many agencies are not fully conversant with the implications of this legislation, which came into full effect in July 2001 (with significant penalties available for breaches).

ICAC Survey
There were significant levels of uncertainty among senior managers about whether: ▪ the implications of the new privacy laws for use of electronic databases had been carefully assessed (37%)   ▪ record keeping systems complied with the State Records Office Guidelines (47%).

7.2.2 Privacy and information sharing

Some agencies are struggling with reconciliation of privacy and information sharing.

One strategy of *connect.nsw* is Integrated Government, which aims to establish common infrastructure for delivering government services and sharing information *within and between* agencies across the three tiers of government. However, many agencies are not clear about the interplay between the provisions of the privacy legislation and the Government's desire to enhance information sharing.

Key common issues for NSW agencies	
▪ Information sharing	On the surface, the new privacy legislation appears to prevent sharing and use of information between agencies, even where valid.
▪ Obtaining clarification	Can't get sufficient certainty on the validity of proposed actions, and so are more likely to hold back. Privacy NSW is perceived by some as an advocate for privacy rather than efficiency.

Privacy NSW is available to provide advice to agencies about the effect of the Act on e-government proposals, and advice as to how proposals can be framed to comply with the Act. It does not have the power to give binding rulings. And in accordance with modern administrative law practices, agency decisions can be reviewed by the Administrative Decisions Tribunal.

Foreshadowed initiative
Upcoming major projects involving business licensing and human services delivery are expected to require the development of privacy frameworks. OIT plans to work closely with Privacy NSW in the development of these frameworks.

The work on cluster-based projects in online business licensing and human services may provide solutions and precedents which will assist the remainder of the sector to understand and balance

privacy and information sharing. A process will be required to ensure this knowledge is transferred. However, this may not address the immediate needs of agencies for further guidance and advice. For example, the business licensing project is to be implemented over four years.

Foreshadowed initiative
The Office of Information Technology advises that it has been working with Privacy NSW to develop a privacy guideline to assist agencies balance privacy and other public interests when implementing e-government initiatives such as the ability to allow agencies to share information for the purposes of better client services.

Resource implications of compliance.

The resource implications of compliance with privacy and electronic record keeping requirements have the potential to be significant.

Key common issues for NSW agencies	
▪ Resource implications	Implementation very expensive and time consuming. Potential to generate substantial overheads for such things as tracking, storage and the integration of applications.

It is not clear that there has been a systematic approach across the sector to determining and addressing the resource implications of electronic record keeping and compliance with the privacy legislation.

7.2.3   Website privacy statements

Better practice
▪ policy published on the web, easy to find, read and understand; discloses the consequences of not providing information
▪ policy specifies accountability mechanisms; indicates what, how and by whom information will be used.

Few websites have privacy statements.

Few NSW agencies have a privacy policy clearly displayed on their Internet site.

Survey of NSW government websites (March 2001)	
Websites with clearly displayed privacy policies	3
Websites with privacy policy found through active search	4
Number of websites examined	59

This failing is not limited to NSW government agencies.

Global position
▣ In 1999, 75% of 700 e-commerce sites examined by international protection agencies had no privacy policy or statement of how consumers' personal details would be handled.

The Office of Information Technology advises that it has been working with Privacy NSW to develop standard wording for website privacy statements.

7.3 Audit observations

Privacy is critical …

Privacy is a critical issue for citizen confidence in e-government. Agencies need to take urgent action to post privacy policies on their websites and thereby better inform citizens.

Privacy advocates have already taken action to equip users (citizens) with tools to test whether websites are being honest about capturing data during Internet interaction. Tools such as 'Bugnosis'[34] allow users to be informed of what system information is being captured/exchanged by Internet sites visited. Failure to declare openly, and accurately, how government sites interact with users (for example, with 'cookies') will undermine public confidence in e-government.

… but agencies are struggling to balance privacy with information sharing.

It is also important that agencies better understand how to balance the requirements for a strong privacy regime (in this case legislation) and the benefits for service delivery possible from enhanced information sharing (in accordance with the *connect.nsw Strategy*).

The two need not be incompatible, but agencies require more guidance and assistance than is presently available. They are not confident that they understand the issues adequately. Many are not certain that they have struck, or are able to strike, the right balance.

Enhanced procedures to help agencies are required.

As a result, privacy issues are stalling some projects. In others, projects are continuing 'with fingers crossed' that arrangements are not ultimately found to contravene the legislative intent. Either way, there is a need for an effective means of resolving important issues of privacy and information sharing to be established as a priority.

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[34] Bugnosis is provided by the USA Privacy Foundation and is available for download at http://www.bugnosis.org.

7.4 Recommendation

Better assist agencies to understand and reconcile the requirements for privacy with the benefits to service quality and efficiency which may derive from increased information sharing.

Actions to be considered include:

- finalise and issue as a matter of urgency the privacy guideline presently under development

- establish an effective means of resolving important issues of privacy and information sharing.

8. Technology and information management

Joined-up government demands joined-up information systems. Interoperable systems working in a seamless and coherent way across the public sector hold the key to providing better services tailored to the needs of citizens and business at a lower cost.

Global position
💻   An international survey in 2000 found that 45% of governments rated technology as a top enabler of improved customer service.[35]

This chapter focuses on:

- technical interoperability

- data and information management

- interoperability standards

- shared resources

- whole of government infrastructure.

8.1   Key initiatives

Key initiative	Description
CEO/CIO Forums	Regular and ongoing communication with Chief Executives and Chief Information Officers.
Guidelines	To assist agencies with implementation issues.
Cross agency projects	Several initiated and/or commenced.
Clustering strategy	OIT works with clusters of agencies to promote greater data sharing.
Buy-not-build	Policy requires agencies to consider off-the-shelf systems rather than building their own.
Panel contracts for infrastructure	Established to reduce system disparity and promote information sharing between agencies. Includes Government Selected Applications System (GSAS) for finance, human resources and records management; Government Network Services; telecommunications services agreements and information technology service contracts.
Agency liaison group (OIT)	1.5 equivalent full-time staff available to provide advice to agencies on technical issues.
ICT censuses	Conducted in 1996 and 1998.

Source: central agency documents.

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[35] Deloitte Research, *At the Dawn of e-government*, 2000, p10.

8.2   Implementation in action

8.2.1   Interoperability

Better practice
▪ systems are based on consistent government wide standards to facilitate large-scale integration and synchronise growth as computer environments are upgraded
▪ organisational needs and system requirements are adequately defined and considered in determining the proper configuration of the e-government system
▪ requirements for system interfaces and data relationships are defined and are used to ensure interoperability with linked systems and applications.

Agencies reported a range of interoperability issues within and between agencies.

Key common issues for NSW agencies	
▪ Interoperability issues	Lack of integration of internal systems, lack of interface with external systems, problems with data definition and duplication, incompatible platforms and lack of network infrastructure.

8.2.2   Technical interoperability

Much information is in legacy systems not designed for information sharing.

Much of the information which NSW Government agencies hold lies within legacy systems that were not designed to facilitate sharing of information.

Expert opinion
💻 Legacy systems may have neither the capacity to handle drastically increased transaction volumes nor the flexibility to retrieve and process data from internal and external sources.

This is not, however, a problem confined to the NSW public sector.

Global position
💻 International consultants found that 32% of governments surveyed felt their legacy systems were a major obstacle to the progress of e-government.[36]

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[36] Deloitte Research, *At the Dawn of e-government*, 2000, p10.

There are solutions, but they're costly and require scarce expertise.

Solutions are available to resolve most technical interoperability issues. However, these generally require significant financial investment and technical expertise to implement.

The full magnitude of the challenge for the NSW public sector would have been clearer if there had been a systematic assessment of the sector's ICT architecture and what would be required to bring it to a level compatible with the demands of e-government.

Funding limitations and ICT skill shortages (dealt with in earlier chapters) impact on an agency capacity to address technical interoperability issues.

The NSW Government has adopted a number of strategies to assist agencies to deal with technical interoperability issues.

Buy not build

There has been a reduction in the number of purpose-built systems.

The 'buy not build' policy, incorporating the requirement to utilise Government Selected Application Systems (GSAS) for corporate services system upgrading, has reduced the number of different IT systems and applications in use across the sector. However, the Council on the Cost of Government expressed some concern at the rate of change.

Council on the Cost of Government
The GSAS program was intended to remedy the duplication of IT&T resources in agencies. In late 1999, the Council found at least 30 different financial management systems and 19 human resource management systems were in use in the sector. It concluded that this was unacceptably high and that progress towards system standardisation was too slow.

OIT advises that current data are not available on the number of non-GSAS applications still in use, however, only a limited number of exemptions to the use of GSAS were given in the last year.

Key common issues for NSW agencies	
▪ Tailoring 'buy not build' products	There is almost always a need to tailor the GSAS products for the requirements of the agency. This tailoring requires careful negotiation and management to contain costs and timelines. Skills to ensure value for money and timeliness are often in short supply.

Government Network Service

Better practice
▪ procedures for the procurement of technology resources for agencies are prescribed.

The GNS aims to deliver a whole of government network …

As discussed in chapter 2, the Government Network Service contract was put in place in 1999 to deliver a whole of government data communications network service using private suppliers. Benefits expected from the GNS include:

▪ encouraging agencies to move from implementing their own unique data communications networks to buying established data communication services

▪ assisting information sharing between like agencies (ie within agency clusters).

… but migration is so far limited.

To date 17 agencies are using some aspect of the GNS contracts.

Government Network Service	
Agencies reporting on ESD	120
Agencies using GNS (in full or part)	17

Source: Budget Estimates 2001-02, Budget Paper No. 3, Volume 2, 10-18.

Issues that may be impacting on the pace of migration to the GNS include:

GNS has some interoperability issues ...

▪ technical interoperability between the products of the contracted private sector providers, and between these products and legacy systems. Policies and standards are currently being developed to address these issues

… there are no timeframes and incentives are limited …

▪ there is as yet no requirement or timeframe for agencies to migrate to the GNS. A reporting framework on progress with migration to the GNS was endorsed by Cabinet in May 2000. OIT has advised that this reporting framework may not now proceed and instead it is working with individual agencies and agency clusters to promote migration

… and there is no specific funding.

▪ the cost of migration to the GNS. While agencies are able to bid for funding from the *connect.nsw* pool or normal budgetary processes, no specific funding has been identified for migration to the GNS and the overall cost implications have not been estimated

▪ due to the current interconnectivity problems between GNS service providers, clusters will have to either adopt the same supplier or await resolution of these interconnectivity issues.

A further complication is that some agencies in the cluster may have pre-existing contracts with a service provider. This has implications for the choices of the remainder of the cluster.

Internet Protocols

NSW was one of the first governments to mandate the use of IP as the Internet protocol and to put in place a range of contracts to assist the move to IP.

Guidance and technical support

Agencies are struggling with interoperability despite guidance.

Despite OIT's efforts in providing guidance to promote technical interoperability, many agencies appear to be struggling with the application of this guidance to their own circumstances.

As discussed previously, agencies were strongly of the view that the sector would benefit from an enhancement to OIT's capacity to provide high level advice and assistance on technical issues.

8.2.3   Information/data management

Better practice
▪ systems are built flexibly to integrate with outside data bases to enable effective enterprise information management and use of data and information.

Work to enhance data compatibility is under way …

OIT has a range of guidelines to assist agencies to ensure data integrity, consistency, accuracy, currency and completeness.

OIT advises that it has been working closely with agencies to improve data management within agencies and between agencies within clusters.

... but is at an early stage in many cases.

To facilitate information sharing will require compatibility across IT systems and creating standard data and coding definitions. This significant task is in many cases at an early stage. For example, as put by OIT (in a discussion of future issues regarding the use of GNS contracts):

Limited progress has been made in mapping the data and information in the various like agencies that would be carried over a common network.[37]

Foreshadowed initiative
When the ESD reporting framework was instituted in May 2000, it was foreshadowed that a similar reporting framework would follow for information sharing between agencies. This is yet to be established.

OIT is at present working with agency clusters based on:

- function (eg business licensing)
- policy area (eg justice, human services).

It remains to be seen whether standards that emerge create data sharing difficulties for agencies which fall within more than one cluster.

8.2.4   Interoperability standards

Agencies exhibit low recognition of OIT guidance on standards.

OIT advises that it has guidelines which incorporate relevant standards for technical interoperability and data sharing. As mentioned above, OIT is also working with clusters of agencies to put in place standards appropriate to these clusters.

Agencies, however, exhibited low recognition of this guidance and these standards.

Key common issues for NSW agencies	
▪ Standards and guidance	There is a need for standards and guidance to promote interoperability and data sharing.

Enhanced communication may be warranted. For example, the UK government has clearly articulated the adoption (in fact mandating) of standards and the availability of guidance.

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[37] Report to CEO Standing Committee, Status of GNS as at 1 September, 2000.

UK e-government Interoperability Framework (e-GIF)
The UK Government has mandated technical standards and policies to promote interoperability.
The main thrust of the policy is to adopt the Internet and World Wide Web standards for all government systems. Specifications have been selected to meet the following criteria:
▪ interoperability – defines policies, standards and specifications
▪ scalability – allowing capacity to be scaled to satisfy changed demands made on the system, such as changes in data volumes, number of transactions or number of users.
Support, best practice guidance, toolkits and centrally agreed data schemas have been provided.

8.2.5   Shared resources

Agencies remain territorial and there is scope to improve sharing of resources.

There remains scope for greater sharing of information and infrastructure between agencies. In particular, agencies are often territorial about their infrastructure and information resources and need to be encouraged to give greater consideration to ensuring infrastructure is put to best use for the sector as a whole.

Agencies tend to the view that they 'own' their systems rather than being the custodian of the Government's investment.

There is scope to enhance the incentives for agencies to share resources. Agencies would also benefit from specific assistance to help resolve some of the more difficult issues encountered when sharing information and resources. These can include determining inter-agency responsibility for:

▪ data ownership, collection and maintenance

▪ data accuracy, validity consistency and currency

▪ data security and access levels

▪ ensuring systems are working properly.

8.2.6   Whole-of-government infrastructure

E-procurement

E-procurement and new portal technology offer potential.

E-procurement holds out significant potential for reducing the cost of public sector activities. Efforts to date have focused on minimising the risks of adopting inappropriate solutions and seeking to benefit from the experience of others. There now appears to be scope to expedite the implementation of e-procurement utilising the lessons learned from early adopters.

Foreshadowed initiative
As this report was being finalised, the *NSW Government E-Procurement Implementation Strategy* was released*.*
The strategy sets out the direction for implementing electronic procurement. It seeks to maximise consistency, and accelerate take-up by agencies while minimising duplication of development and implementation costs.
Key elements relate to process redesign, expansion of electronic tendering, the electronic marketplace, performance monitoring and reporting, removal of legal impediments, additional guidance and support, sharing of better practices, and the establishment of target dates.

Portals

In chapter 3, the emergence of portals as a key enabler of e-government was discussed. Evidence is also emerging that there may be scope to construct intentions-based portals in a manner which offers infrastructure upon which agencies can cost-effectively build their e-government initiatives. This is a development which is worthy of close monitoring and further exploration.

8.3   Audit observations

Integration of government is technically feasible …

Integrated government is one of the four underlying strategies of *connect.nsw*. For government to become more fully integrated, and for improved service delivery and efficiency, the data held within agencies needs to be better utilised. It will need to be shared more both within and between agencies.

… but it is still in its early stages.

It is technically feasible for most, if not all, information in legacy systems to be shared. A number of strategies have been put in place to assist agencies to make their systems more interoperable and to facilitate greater information sharing. But integrating government is still at its very early stages, and scope remains for much further progress.

The release of the *E-Procurement Implementation Strategy* as this report was being finalised may be an indicator of acceleration of efforts on this aspect of e-government.

8.4   Recommendations

Increase information and systems sharing across government.

Actions to be considered include:

- increase the rate of migration to common network infrastructure and an enterprise approach to systems and applications

- apply a cost-benefit approach to addressing interoperability issues associated with legacy systems, which recognises whole of government benefits

- accelerate the adoption of standards for information sharing within NSW government agency clusters and, where practical, with other levels of government, the private sector and other stakeholders

- develop a capacity for ongoing expert evaluation of emerging technologies.

Actively drive the recently announced E-Procurement Implementation Strategy.

Actions to be considered include:

- ensure responsibilities for implementation are clear

- ensure central and line agencies are held accountable for meeting targets and for achieving the performance improvements foreshadowed in the Strategy.

Appendices

Appendix 1   About the audit

Purpose

This audit is a strategic assessment of the current position with e-government.

The purpose of this audit was to offer a strategic assessment of how the NSW public sector was placed to take advantage of the opportunities and manage the risks associated with the Internet and related technologies.

Scope

The audit concentrated on:

- assessing overall progress by the NSW public sector in using the Internet and related technologies to improve its service delivery and efficiency

- identifying any issues which would need to be addressed to fully leverage the potential of e-government for improving the performance of the public sector.

The audit did not set out to:

- undertake an evaluation of the *connect.nsw* program

- review in-depth the operations of the Office of Information Technology

- examine the economic and social development aspects of e-government, except as they flow from reform of government service delivery

- examine issues of collaboration with other jurisdictions that may impact on e-government in NSW.

Audit approach - summary

The audit's research involved multiple elements.

Consultation
Independently facilitated agency focus groups to identify key issues
Distribution of summary of issues highlighted by agencies to 100 CEOs for verification and feedback
Independently facilitated agency discussion forums to drill down into key issues[38]
Individual agency consultation/follow-up - 11 agencies
Stakeholder consultation - representatives of business, the disabled, the elderly, youth and telecommunications users
Discussions with consulting firms/technical experts
Consultation with central government agencies
Consultation with Audit Office staff – financial, information systems

Research[39]
E-government expert articles
E-government status reports and reviews
Literature research – e-government programs, approaches and documentation in NSW, interstate, overseas
Review of NSW Government documents (published and unpublished)
E-government conferences/forums
E-government website surfing - government and expert sites

Governance[40]
Expert advisory panel comprising identified experts from the: ▪ National Office of the Information Economy ▪ Royal Melbourne Institute of Technology ▪ Australian National Audit Office ▪ St James Ethics Centre ▪ Australian Institute of Criminology ▪ Australian Graduate School of Management ▪ Commonwealth Attorney-General's Department
Established e-government audit network - shares information and resources between Australasian Audit Offices
Member of the USA National E-government Audit Working Group
ICAC e-corruption research. Member of steering committee, involved with survey design, participated in expert discussion workshops

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[38] More than 40 agencies were involved in the focus sessions and the discussion groups.

[39] A full bibliography for the audit is too large to reside in this printed report. An abridged bibliography has been included at appendix 2. The full bibliography can be accessed from our website.

[40] Members of the expert panel are listed at appendix 3.

Audit costs

Audit	$471,220
Better Practice Guide	98,450
Printing (estimate)	16,000
TOTAL	$585,670

This includes research which will reduce the costs of future e-government performance audits.

Audit team

The team variously comprised Ai-Binh Phu, Bettina Ocias, Rod Longford, Henriette Zeitoun and Stephen Horne.

Appendix 2 Abridged bibliography

Accenture (2001), *eGovernment Leadership: Rhetoric vs reality - Closing the gap*

Andersen Consulting (2000), *Implementing eGovernment - Rhetoric and reality*

Australian National Audit Office (2001), *Electronic service delivery, including Internet Use, by Commonwealth Government Agencies*

Australian National Audit Office (2001), *Internet delivery decisions: A government program manager's guide - best practice*

Australian Auditing Guidance Statement 1042, *Reporting on control procedures at outsourcing entities*

Australian Auditing Guidance Statement 1056, *Electronic commerce - Audit risk assessments and control considerations*

Australian Auditing Standard 206, *Quality control for audit work*

Australian Auditing Standard 304, *Knowledge of the business*

Australian Auditing Standard 402, *Risk assessments and internal controls*

Australian Auditing Standard 404, *Audit implications relating to entities using a service entity*

Australian Auditing Standard 606, *Using the work of an expert*

Centre for Applied Philosophy & Public Ethics (2001), *eCorruption vulnerabilities in the NSW public sector:* Report for the NSW Independent Commission Against Corruption

Customer Service Institute of Australia (2000), ISAB - *The international e-commerce standard for security, privacy & service (business to business*)

Deloitte & Touche (2000), *e-Commerce security - Enterprise best practices*, Information Systems Audit & Control Foundation, USA

Deloitte Research (2000), *At the dawn of e-government: The citizen as customer*

Deloitte Research (2000), *e-Leadership? Beyond the hype: Perceptions vs. reality about e-leadership*

Deloitte Research (2000), *Through the portal: Enterprise transformation for e-Government*

Economist Magazine (2000), *Government & the Internet*

Forrester Research (2000), *To create a seamless public sector, Canada must develop eGovernment networks*

IIR conference (1999), *Trading on the Internet*, conference papers

Independent Commission Against Corruption (2001), *The need to know: e-corruption and unmanaged risk*, symposium papers

KPMG (2000), *Leading the transformation to e-government: Seven things you need to know*

KPMG (2000), *Managing the public sector-global challenges*

McKinsey and Co (2001) Quarterly No. 2, *Putting citizens online, not in line*

Memorandum of understanding between NSW Government & Health Research Employees Association of NSW, NSW Nurses' Association, Public Service Association of NSW, Labor Council of NSW

National Electronic Commerce Coordinating Council (1999), *Electronic commerce: A blueprint for States,* USA

National Electronic Commerce Coordinating Council (2000), *Critical business issues in the transformation to Electronic government,* USA

National Electronic Commerce Coordinating Council (2000), *E-government strategic planning: A white paper*, USA

National Electronic Commerce Coordinating Council (2000), *Risk assessment guidebook for e-government/e-commerce*, USA

National Electronic Commerce Coordinating Council (2000), Symposium: *A framework for success in electronic government*, USA

NSW Council of Social Services (2000), *Human services dot.com*, conference papers.

NSW Council on the Cost of Government (1997-1999), *Various reports to Parliament*

NSW Department of Public Works & Services (1997), *An Internet strategy for NSW: connect.nsw*

NSW Department of Public Works and Services (1999), *Discussion paper - Electronic procurement: Taking up the challenge*

NSW Government (1997), *Information Technology and Management Blueprint for NSW: A well-connected future*

NSW Government (1998), *connect.nsw Implementation framework*

NSW Government (2001), *Skilling people for an information society: NSW information and communications technology skills action plan*

NSW Independent Commission Against Corruption (2000), *E-Corruption: Exploiting emerging technology corruptly in the NSW public sector*

NSW Office of Information Technology (2001), *Providing information and services using the Internet: A guideline for NSW government agencies*

NSW Office of Information Technology (2001), *NSW government scorecard on digital progress*

NSW Office of Information Technology, *Various guidelines, Memoranda and Circulars*

NSW Premier's Department, *Various guidelines, Memoranda and Circulars*

NSW Treasury, *NSW Budget Papers, Various*

NSW Treasury, *Various guidelines, Memoranda and Circulars*

OECD Public management policy brief no. 8 (2000), *The hidden threat to e-government: avoiding large government IT failures*

Office of the Auditor General (1996), *Special report - The Internet and the public sector agencies*, Western Australia

Office for Government Online (1999), *Commonwealth Government Online - progress report*

Office for Government Online (2000), *Government Online: Online action plan guidelines*

Office for Government Online (2000), *Government Online: The Commonwealth government's strategy*

PricewaterhouseCoopers (2000), *20 lessons learned about e-government in Canada*

PricewaterhouseCoopers (2000), *E-business risks: Can your organisation be trusted?*

Privacy NSW, Office of the Privacy Commissioner (1999), *Privacy & Personal Information Protection Act,* Guidelines

Smith, R. G (1999), *Trends & issues in crime & criminal justice: Defrauding governments in the twenty-first century information*, Australian Institute of Criminology series no. 111

State Records NSW (2000), *Standard on recordkeeping in the electronic business environment*

The Auditor General of Canada (1998), *Electronic commerce: Conducting government business via the Internet*

UK Cabinet Office (1999), *Modernising government white paper*

UK Cabinet Office (2000), *e-government interoperability framework: Modernising governme*nt

UK Cabinet Office (2000), *Information age government: Benchmarking electronic service delivery*

UK National Audit Office (1999), *Modernising government*

UK National Audit Office(1999), *Government on the web*

US General Accounting Office (1998), *Executive guide - Measuring performance and demonstrating results of information technology investments*

US California State Auditor / Bureau of State Audits (2001), *Information technology: The State needs to improve the leadership and management of its information technology efforts*

US Indiana State Emergency Management Agency (1999), *Indiana year 2000: Continuity and contingency management plan*

US Office of Information Technology (2000), *E-government report and plan: A vision for Missouri's future*

US Office of Program Policy Analysis and Government Accountability (1999), *Program evaluation and justification review: Information technology program administered by the Department of Management Services*, Florida

US Office of the State Auditor (1999), *A performance review of the year 2000 computer problem: State and local government*, Mississippi

US Auditor of Public Accounts - Commonwealth of Virginia (2000), *A study of electronic commerce: Auditability and obstacles*

US Wisconsin Legislative Audit Bureau (2001), *A review: State agency use of computer consultants*

Victorian Auditor-General's Office (1999), *Information technology in the public sector*, Melbourne, Australia

The full bibliography can be found at the Audit Office's website: www.audit.nsw.gov.au.

Appendix 3　　　Expert panel members

The expert panel represented a part of the quality assurance framework for the audit, and provided a valuable source of expert advice and input. However, the Audit Office accepts full responsibility for all findings, conclusions, opinions and recommendations and for any errors or omissions.

Members of the expert panel were:

Mr Tim Field	Chief General Manager, Government Online, National Office for the Information Economy.
Mr Ross Kelso	Senior Research Fellow, Centre for International Research on Telecommunications and Information Technologies, RMIT University.
Dr Simon Longstaff	Executive Director, St James Ethics Centre.
Mr Colin Minihan	Principal Legal Officer, Commonwealth Attorney General's Department.
Dr Paul Nicoll	Executive Director, Australian National Audit Office.
Mr Philip Poon	Director, Information Systems Audit, Audit Office of NSW.
Dr Russell Smith	Deputy Director of Research, Australian Institute of Criminology.
Mr Lee White	Assistant Auditor General, Audit Office of NSW.
Professor Phillip Yetton	Executive Director, Centre for Managing Information Technology, Australian Graduate School of Management.

Appendix 4   Formal Government response

Table of Contents

Response Parameters and Structure

The Formal Government Response to the Performance Audit Report was compiled by the Department of Information Technology and Management, and incorporates comment from the Department of Information Technology and Management, Privacy NSW, Premier's Department, Treasury, the Department of Public Works and Services and the Cabinet Office.

The Performance Audit Report does not adequately reflect the Government's leadership and direction in e-Government and Information and Communications Technology. Nor does it fully acknowledge the Government's achievements to date, or progress on initiatives already underway.

The majority of issues and recommendations in the Report relate to policy decisions or initiatives that Government has already identified and is addressing. The Formal Government Response has addressed this imbalance and provides comments where achievements have not been adequately reflected in the Report.

Comments relating to specific sections of the Report have been organised in accordance with the structure of the Report. Comments also addressing a number of interpretative errors that were previously provided to the Audit Office when the same agencies were given the opportunity to comment on the draft report issued on 4 July 2001 have also been included as these comments were only superficially reflected in the final Report.

Where a contributing agency has drawn attention to a specific aspect of the Report that relate solely, or for the most part to the functions of that agency, the title of the agency appears either in the text of the response or in parenthesis directly following the comment. Where a comment has not been attributed to a specific agency, the view or comment expressed relates to Government as a whole.

Formal Response to Executive Summary

The Premier has recently established the Chief Executive Officers' (CEOs) e-Government Committee chaired by Dr Col Gellatly, Director General, Premier's Department to monitor, report and oversight across agency policies and programs to ensure the public sector is united in achieving enhanced service delivery and reform initiatives in the area of e-Government.

The Department of Information Technology and Management was established in 1999 to deliver whole of Government Information and Communications Technology (ICT) strategies, policies and programs for e-Government in NSW, and is continuing to provide the core strategic leadership and coordination on ICT matters, including the secretariat for the CEOs eGovernment Committee.

The CEOs e-Government Committee assists and advises the Premier and Minister for Information Technology and the Cabinet Sub Committee on Information Technology by:

- Monitoring and reporting on agencies' implementation of the Government's Information and Communications Technology (ICT) strategic directions, priorities and initiatives.

- Monitoring and reporting regularly on the status of key e-Government announcements, whole of government and multi agency ICT initiatives.

- Monitoring and reporting on whole of government and individual agency progress in delivering all appropriate services electronically by end 2001, as well as new and planned online services.

- Directing discussion on key strategic ICT issues.

- Making recommendations on ways to explore information technology and communications opportunities and partnerships with government agencies, public utilities, local, state and Commonwealth governments and the private sector.

- Making recommendations on the need for legislation to support and encourage the information economy.

Establishment of the CEO's e-Government Committee builds on and enhances the NSW Government's leadership in Information and Communications Technology (ICT). It should be acknowledged that the Government already has a number of established practices in place to ensure e-Government is aligned with overall policy directions and priorities (both ICT and non ICT) and receives appropriate budget funding. This can be demonstrated by the following range of activities well underway.

Strong leadership to drive a vision and strategic adoption of implementation pathways:

- A NSW Minister for Information Technology
- Cabinet Sub-Committee on Information Technology
- A Department of Information Technology and Management
- CEO's e-Government Committee
- NSW Government web portal – ServiceNSW which provides a 'one stop' for access to Government information, services and payments.
- Policy and Strategic Directions
  - IM&T Blueprint
  - Integrated Electronic Service Delivery Platform
  - Whole of Government/Enterprise approach
  - Agency clusters
  - Diversity, flexibility and focus
- *connect.nsw* Program - the Governments Internet service delivery strategy to streamline government purchases, reduce costs and improve service delivery.
- Enhanced information security management across the public sector
- Agency reporting and mentoring program eg. Electronic Service Delivery (ESD) Reporting to Cabinet.
- IM&T Forums, Guidelines and assistance to agencies

- ❖ Significant investments and use of Information and Communications Technology (ICT):

  - $12 million invested in the Australian Centre for Advanced Computing and Communications (ac3)
  - $32 million to streamline business licensing and provide a "one stop" entry point for licensing information and services.
  - $15.4 million Community Technology Centre Program establishing up to 60 centres in towns with populations of less than 3,000.
  - $40 million invested in the Australian Technology Park
  - $260 million for computers in schools
  - $70 million on ICT skills development
  - Telehealth services delivered at 107 sites across NSW since 1996

- All schools connected to the Internet by 1996
- Country online program giving regional community access to school facilities
- Telecommunications initiatives such as the Government Radio Network, one of the largest mobile radio networks in the world, which covers 150,000 square kilometres of NSW and processes over 11 million calls per month.
- Trialing Interactive Television as a means of providing households with better access to Government services.

❖ A skilled workforce (including knowledge workers) with linkages and access to educational institutions:

- Ten Point ICT Skills Action Plan including :
  - School of the Future
  - Traineeships and cadetships
  - Testing skills
  - Enhancing teacher ICT Skills
  - Business and Industry Skills development
  - A range of public sector initiatives

❖ Affordable access to scalable bandwidth:

- The NSW Government has developed a range of innovative telecommunications projects, which is culminating in the development of a comprehensive telecommunications strategy.
- Rural link program connecting libraries and local councils throughout the State to over 90 regional communities throughout NSW.
- Government Network Service (GNS) contracts delivering high quality whole of Government data communications using private suppliers.

❖ NSW Government and Industry Partnerships:

- Technology Corridors and hubs
- Information and Communication Technology (ICT) incubators
- Industry attraction
- Local business development
- Partner in the Cooperative Research Centres for Smart Internet Technology
- NSW Centre of Excellence in e-Business.

Audit Opinion

The NSW Government has a comprehensive Information and Communication Technology Platform made up of a range of policies, guidelines and standards for use by NSW Government agencies incorporating security, web publishing, information management, business case development etc.

The Government has adopted a number of targeted funding strategies to implement its Information and Communication Technology priorities so that the maximum number of agencies can benefit.

One way this is being achieved is through the *connect.nsw* funding program which provides a ready pool of funds to fast track innovative Electronic Service Delivery (ESD) initiatives. The *connect.nsw* program has received funding of more than $30 million since 1998/1999 when it commenced.

Another approach is the implementation of significant integrated Electronic Service Delivery (ESD) programs such as connectingBusiness, Human Services Better Service Delivery and electronic patient information across the NSW Health Sector, which are key strategic multi agency programs that will streamline business processes and deliver enhanced services to the community.

The Office of Information Technology revised its Information Security Guidelines in January 2001. They provide clear guidance to agencies on information security assessment and management. Cabinet has recently approved the implementation of a more structured approach to information security across the public sector and implementation of this program has commenced.

The *NSW Government E-Procurement Implementation Strategy* is a major Government initiative which meets the Audit Office's call to "expedite the implementation of e-procurement." The Strategy gives strong support for "expanding electronic tendering and the development of a NSW Government e-marketplace". It also addresses many other issues raised in the Report, such as the need for reform of administrative processes within and between agencies, the need for additional support and assistance from central agencies, and the need to expedite the widespread implementation of e-procurement utilising the lessons learnt from early implementors.

While the Report now includes a statement about the *NSW Government E-Procurement Implementation Strategy*, its importance as a major e-Government initiative is still not being fully recognised. The Strategy is already addressing issues raised in recommendations in the Report, particularly in regard to 'breaking down the silos' and for central coordination to ensure agencies act in a more uniform and integrated manner.

Recommendations

- The Government is currently developing future strategies for Information and Communications Technology (ICT).

- The Electronic Service Delivery (ESD) Reporting Framework articulates priorities, targets and timeframes for agencies in putting services online for the overall 2001 commitment.

- The advancement of information and infrastructure sharing reporting and improved centrally coordinated cluster management will be achieved via the establishment of a Government Multi Agency ICT Development Centre.

- Funding for key e-Government projects is increasing.

- The establishment of comprehensive, coherent, robust and transparent measurement and reporting of e-Government progress has commenced, and in an ongoing process will include increased focus on benefits realisation.

- The recently re-constituted CEOs' e-Government Committee confirms the NSW Government's recognition of the need for central agencies to have greater leverage to drive e-Government. The Committee is expected to play a lead role in addressing the issues raised in the Report.

- NSW Treasury is currently reviewing the financial environment in which agencies operate including the Public Finance and Audit Act (PF&AA) and the Treasurer's Directions (TDs) issued under that Act.

- The Government's ICT Skills Action Plan, Community Technology Centres Program, Telecommunications Strategy and Government Access Centres Program are addressing the issue of extending efforts to enhance access to and use of Internet technologies by disadvantaged groups.

Formal Response to Introduction

NSW Government agencies have been using technology to redesign business processes for at least the last 20 years – this is fundamental to any best practice system development methodology. The advent of the Internet and other emerging technologies have enabled the delivery of services on a variety of delivery platforms such as the Internet, telephone over the counter etc. (thus improving customer choice) as well as maximising access to new online services for regional and remote communities.

Government policies and guidelines stress the importance of being customer focused when undertaking electronic service delivery - for example, identifying both user and business needs when defining requirements (including user needs analyses); designing and packaging services from the customer perspective; undertaking useability testing and providing feedback mechanisms to ascertain whether client needs are being met.

With regard to efficiency, established methodology for NSW Government agencies prescribes that projects should proceed on the strength of their "business case" – that is. those which will bring about positive cost/benefit outcomes. This coupled with the requirement for agencies to deliver appropriate high volume transactions online (as part of their obligations under the Electronic Service Delivery Reporting Framework) will ensure that agency activities will be targeted for reform.

Formal Response to Where are we going and where are we ?

2.2 connect.nsw

The concept of Integrated Service Delivery, as embraced by NSW, has business re engineering as a central focus and has been promoted by NSW Government in the last 2-3 years. It is actively supported through the *connect.nsw* Funding Program, and a number of whole of government and sector/cluster based initiatives already well established and underway by NSW Government agencies.

Key examples are:

- the **connectingBusiness** initiative, aimed at improving the quality and efficiency of Government services to the Business sector through rationalisation of licensing, compliance and enforcement activities, reduction of associated costs, and the implementation a best practice whole of Government licensing system.

- a **whole of government online recruitment service** for those people seeking employment in NSW Government agencies

- an **online Government bookshop** to provide the community with a "one-stop" shop to purchase or free download the publications of all NSW Government agencies

- an **online statutory planning portal** to provide 24 hours / 7 days all year Internet access to all planning and related information for all properties in NSW and access all the relevant planning controls and associated information that applies to that property

- a **whole of State facility for the electronic lodgement of development applications**

- an **online whole of State address changing facility**, which the community and business can use to notify a change of address to their chosen Government and non-Government organisations at one Internet site

- **Integrated Land Titling System**, providing a single entry point for the public to enquire about a parcel of land - title, plan, dealings and a range of other conveyancing related information (eg. heritage listed, environmental affectations, transport interests, utility interests, Sydney Water diagrams)

- the **Human Services Better Service Delivery Program**, a innovative multi-agency program to provide coordinated, high quality and professional services with maximum convenience for clients, through the establishment of policies, business rules and standards, the development of electronic client referral tools, the establishment of a services directory and a communications platform linking agencies and Non-Government Organisations.

- the **Asset.gov** system, which is already winning national awards for its innovative approach to collaborative project management of the construction of hospitals, schools, and other infrastructure. Through this system, government agencies, contractors and consultants, and local councils are able to log onto a common database of drawings, specifications, and plans, ensuring that all parties have access to the same project documents.

2.2.1 Electronic Service Delivery

Electronic Service Delivery is being embraced by agencies with agency ESD Reporting showing for the most recent report quarter (30 June 2001):

- The level of reporting compliance is now 99%.

- 89% (82% already complete +all projects in progress (they are all due for completion before end 2001)) of agencies indicate that they expect to meet the Government's 2001 commitment with respect to the target area "Tender information on the Internet"

- 93% (87% already complete +8 of 9 agencies with projects in progress (Urban Affairs has two publications projects that are not due for completion until after 2001) of agencies indicate that they expect to meet the 2001 commitment with respect to the target area "All appropriate government publications on the Internet".

The Department of Information Technology and Management is supporting agencies implement ESD by:

- Premier's Memorandum 2000-12 (29 May 2000), which provides clear directions on the 2001 commitment and reporting requirements.

- Office of Information Technology policies and guidelines

- An Information Kit on the ESD Reporting Framework

- A series of workshops to explain the ESD Reporting Framework and to obtain feedback from agencies

- Commissioning publications of ESD case studies to promote sharing of ideas, experiences and information between agencies

- Agency support provided by the *connect.nsw* team (up to 10 officers) in the form of phone, email, site visits and Information Technology forums, with assistance ranging from technical advice, solutions design, costings, user needs analysis, through to evaluation of tenders.

2.2.4 Networked communities

NSW is actively addressing the issue of the digital divide through a series of programs both on a State basis and in concert with national and interstate counterparts. Programs include:

- Providing citizens with choice in accessing NSW Government Services from a variety of delivery channels from electronic to face to face.

- A Community Technology Centre Program targeting small rural towns to provide access to ICT and related skills.

- Community access to school and library computer and internet facilities throughout the state through the Country Online and NSW.net programs, respectively.

- An ICT Skills Strategy targeting specific needs of groups at risk of digital disenfranchisement eg unemployed workers, rural and remote people, young people, people from non english speaking background, women, seniors, people with disabilities and Aboriginal and Torres Strait Islander communities.

- The Centre of Excellence in e-Business is also providing assistance and resource tools for small to medium enterprises to take advantage of emerging e-business solutions.

In terms of an overall government status in the uptake of technology, the level of activity reported by agencies through Electronic Service Delivery Reporting indicates that the Report's analysis of NSW in terms of the Stages of e-Government maturity does not fully recognise the significant number of whole of government and sector based initiatives under way.

The Report recognises that worldwide, progress in this area is still under developed and that the NSW Government is progressing at a rate appropriate to responsible implementation in this area.

However, it should be noted that agency Electronic Service Delivery Reporting indicates that NSW is further advanced in the stages of e-Government maturity, particularly in the areas of managing standards setting, change management and cultural shifts than the report acknowledges. The chart below reflects more accurately the NSW Government's position as being shown as 'many' for publishing / basic interactivity and Transactions and 'some' for interactive / external integration and government transformation.

Stages of e-Government maturity

Depth of relationship with customer
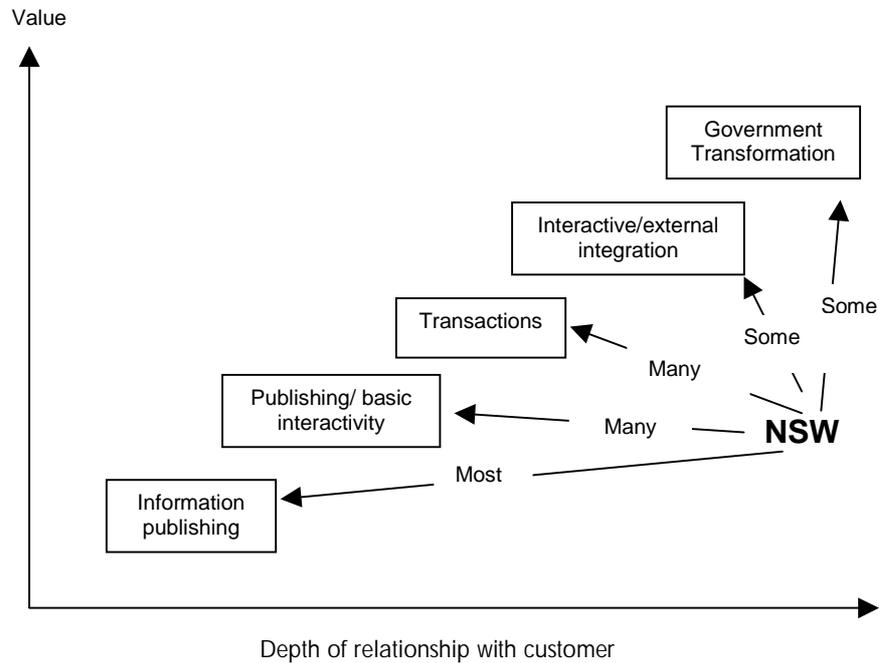
Formal Response to Directions, guidance and accountability

3.1 Key initiatives

The Department of Information Technology and Management working with the CEO's e-Government Committee, is responsible for driving the use of technology to improve the development and delivery of government services to benefit citizens, business partners and employees and to enhance the social and economic development and wellbeing of NSW.

This is achieved by:

- optimising the range and volume of government services delivered electronically

- developing regulatory frameworks to foster the development and growth of the online economy

- facilitating improved information sharing and exchange across government and related industries

- improving government process efficiencies

- assisting in stimulating growth in information industries

- enhancing business and community skills and access to technology

- enhancing telecommunications access.

3.2 Implementation in Action

Where appropriate, business critical and technically possible, the NSW Government is taking a progressive, business driven approach to ensure e-Government initiatives meet policy priorities, are appropriate for the people of NSW and deliver value for money.

There is an increased focus on cross agency coordination. A range of strategies are progressively being put in place to break the natural tendency towards the 'silo' approach. Examples include:

- connectingBusiness project
- Human Services Better Service Delivery Program
- The requirement to report in information and infrastructure sharing
- Self led cross agency projects

The Government is also advancing information and infrastructure sharing reporting and improved centrally coordinated cluster management to facilitate greater momentum in sharing better e-practices across sectors. This is being supported by the establishment of the Multi Agency ICT Development Centre in Parramatta which will provide a showcase and resource for Government agencies to develop special e-Business projects. The Centre will facilitate skill sharing and transfer across agencies, maximise the value of existing government assets, deliver more efficient business processes and provide economies of scale enabling agencies to share infrastructure and resources.

The Centre will also provide a base for integrated service delivery opportunities and will be able to access services provided by the nearby Centre of Excellence for e-Business and the supercomputing facilities at the Australian Centre for Advanced Computing and Communications. The first of the Centre's start-up e-business programs are Connecting Business and the Human Services Better Service Delivery Program.

3.2.4 Project & Risk Management

Agencies typically have limited resources available to trial or experience new technologies and hence it has been difficult for them to justify investments in emerging and unproven technologies. The *connect.nsw* funding program has been a tangible way that agencies can gain funding to trial innovative uses of the technologies.

NSW Treasury has an extensive policy regarding Risk Management, including the Risk Management Toolkit, issued in 1997. This Toolkit stated that risk management is everyone's business and encompasses every aspect of an agency's operations. The Toolkit includes guidelines that explain the importance of risk management, methodology to assess risks across an organisation, and includes generic implementation strategies that can be adapted to the circumstances of the agency. It is understood that many agencies have implemented the methodology in the Toolkit.

It should be acknowledged that the risk aversion across government to trial or invest in emerging technologies reflects the fact that agencies are accountable for making prudent investment decisions and operational budgets are restrained to cover essential business priorities.

3.2.6 Legal

NSW Treasury is currently reviewing the financial environment in which agencies operate. It is reviewing the financial legislation including the Public Finance and Audit Act (PF&AA) and the (TDs) issued under that Act. Compliance with the Act and TDs is mandatory for NSW agencies.

The revised Public Finance and Audit Act and Treasurer's Directions will be written in a purposive-based manner. That is, they will emphasise the outcomes to be achieved, and the criteria to be met in achieving them, and will reduce the amount of prescription, leaving the agencies subject to the legislation with discretion as to how they can achieve the outcomes and criteria. This legislation will be supported by non-mandatory best-practice guidelines.

Because the legislation will be principles based, this will eliminate detailed prescription and therefore any perceived paper based bias which currently hampers take up of some technology options.

3.2.7 Monitoring, review and reporting

In implementing Electronic Service Delivery, the initial focus has been on reporting compliance - the rationale being "first get agencies to report, then we can review the quality of what they report". Having achieved a level of reporting compliance of around 99%, the focus is now on the quality of reporting. With regard to impact, the focus has been and will continue to be on making key information and services (ie. high volume, hence "most in demand") available to agency clients.

It is not appropriate to establish similar targets for every initiative under the *connect.nsw* Program. Targets and deadlines are set where appropriate depending on the nature of the initiative. While arrangements similar to the Electronic Service Delivery reporting are under way for security, information and infrastructure sharing, other initiatives have achievement targets that are dependent on take-up by organisations external to NSW Government, eg. community groups for Community Technology Centres and public libraries for NSW.net and RuralLink. Other factors to be taken into consideration – the pace of implementation must be in alignment with client/community readiness, the level of maturity of enabling technology, the establishment of a legal/regulatory environment that is dependent on national and international players, as well as an evolutionary migration path that leverages off existing investment in legacy systems.

The Department of Information Technology and Management has convened a cross-agency Working Group on Benefits Realisation which is developing a cost-effective mechanism to collect information on the achievement of Information and Communication Technology benefits with minimal inconvenience to agencies. A 12 month pilot project involving the Department of Information Technology and Management, Attorney-General's, Health, and the Department of Public Works and Services, to investigate the level of information already generated within agencies' own management reporting processes and how this can be aggregated and analysed on a whole of government basis. A report on the outcome of the pilot and issues for wider government implementation will be provided to the CEO's e-Government Committee in 2002.

3.2.8 Digital Divide

The NSW Government's Community Technology Centre (CTC@NSW) program will establish up to 60 CTCs in towns in NSW with populations less than 3000 over the period from January 2001 to June 2003. The program will provide infrastructure, training and support for the local community and broker services the CTCs can provide to ensure ongoing viability. The CTC Program is jointly funded by the Commonwealth (Networking the Nation) ($8.5 million) and the NSW Governments ($7.2 million).

The CTC program will provide support for communities in planning, managing and operating ICT based community enterprise: ICT skills training programs in the use of computers and the Internet: and improve online access and other services. This program aims to support rural communities to develop a wide range of Information and Communication Technology (ICT) enabled services including but not limited to education and training, telehealth, web services, local publishing, online service access, tourism support services, business services, sound and film editing, digital arts, Information Technology consultancy and advice, professional offices, Information Technology supported meeting rooms, videoconferencing, e-commerce incubators, and "microbusiness parks".

Community Technology Centres are based on community identification of gaps in provision and the establishment of "one stop shops" providing services and programs to address those gaps. As such they provide communities with the ability to aggregate demand into a physical location, thus enabling communities to better manage the costs of the high bandwidth required to support economic development (minimum 128K two way).

Gundagai, Narromine, Menindee and Temora are the first towns in NSW to receive funding from the CTC program to pay for the set-up costs and employment of a centre manager. Existing Telecentres in NSW funded under previous Commonwealth funding programs have also become members of the NSW CTC Network which is also being funded from the CTC Program.

At 30 June 2001, 33 existing Telecentres have been connected to the CTC@NSW Network. It is expected that 11-12 communities will successfully gain funding for their CTCs during the first round of funding applications to be announced at the end of September 2001.

The CTC@NSW approach has a synergistic relationship to the Integrated Government and Electronic Service Delivery planks of the *connect.nsw* strategy as far as breaking down "siloed" information and increasing the number of access points and delivery mechanisms. Digital divide type programs have traditionally been structured as community based, funding programs with government involvement limited to management of the funding processes and oversight of the expenditure of funding.

CTC@NSW has effected a strong community and government partnership model that breaks new ground in the development and establishment of ICT facilities that deliver community "equity" and regional development outcomes.

CTCs provide an opportunity for program and service delivery into small towns through a range of service channels (for example, face to face, videoconferencing, telephone, online) effected through high bandwidth telecommunications. Localised training in basic Internet and computer usage can be effectively managed through CTCs thus enhancing the capacity of rural community members to take up the government services being migrated to the Internet. Identifying the digital divide as one requiring a national approach risks a definition of the issue

as one solely of telecommunications, thus ignoring the issue of appropriate services, applications and delivery models that underpin take up of telecommunications.

The whole of government NSW Government Access Program has achieved much in relation to one-stop shops for over the counter services. Digital divide programs such as CTC@NSW provide opportunities for complementary one stop shops delivering online services.

Other Government initiatives addressing issues of access for rural residents include:

- The ICT Skills Strategy for NSW was developed after extensive stakeholder consultations and has established long term partnerships with the Education and Industry leaders.

- The establishment of the Government Network Service and other telecommunications agreements has stimulated demand and increased competition and encouraged growth in rural and regional Information Technology industries.

- connectingBusiness will reform government business processes from the community and business perspective.

3.2.9 Government Portals

ServiceNSW has been an "intentions based portal" since 1998, with a customer based approach that does not require a user to know the structure of government in order to locate the required information or service. ServiceNSW has 12 service sectors (or portals) that are designed from the customer perspective. User need analyses were conducted for each service sector (eg. Culture & Recreation, Education, Environment, Emergency Services, Health, Law & Justice, Employment, Transport, etc), to obtain customer input as to their service requirements. This work is carried out in close consultation with cross-agency working parties. This sector approach is intended to obviate the need for agencies to individually consult the same client base, as well as provide a cohesive and comprehensive view of user needs specified from the client perspective. The findings assisted in the design of each service sector/portal of ServiceNSW, provided input into agencies' ESD programs and "spawn" cluster/sector projects that deliver integrated services (eg. jobs.nsw). "one stop" entry point to media releases, etc).

Service delivery through a choice of delivery channels has been actively encouraged in NSW Government for a number of years. Priority projects funded under the *connect.nsw* Funding Program are those that delivered integrated services at a whole of government or agency sector level, across multiple delivery channels.

3.4 Recommendations

- The Government is currently developing future strategies for Information and Communications Technology (ICT).

- The Electronic Service Delivery Reporting Framework articulates priorities, targets and timeframes for agencies in putting services online for the overall 2001 commitment.

- The advancement of information and infrastructure sharing reporting and improved centrally coordinated cluster management will be achieved via the establishment of a Government Multi Agency ICT Development Centre.

- Funding for key e-Government projects is increasing.

- The establishment of comprehensive, coherent, robust and transparent measurement and reporting of e-Government progress is an ongoing process including increased focus on benefits realisation.

- The recently re-constituted CEOs' e-Government Committee confirms the NSW Government's recognition of the need for central agencies to have greater leverage to drive e-Government.

- NSW Treasury is currently reviewing the financial environment in which agencies operate including the Public Finance and Audit Act (PF&AA) and the Treasurer's Directions (TDs) issued under that Act.

- The Government's ICT Skills Action Plan, Community Technology Centres Program, Telecommunications Strategy and Government Access Centres initiatives are addressing the issue of extending efforts to enhance access to and use of Internet technologies by disadvantaged groups.

Formal Response to People Management

4.1 Key initiatives

The Information and Communication Technology (ICT) Skills Action Plan released in March 2001, has been developed, based on recommendations from the Premier's Information and Communication Technology (ICT) Skills Forum, to address the ICT skills shortage and to increase ICT skills across the community.

The ICT Skills Action Plan is a 10 point Action Plan that delivers a series of actions that will address the four target themes put forward at the Premier's Forum:

- Strengthening the skills base

- Building a strong ICT skills base in the public sector

- ICT and State Development

- Skilling small business and the community

The NSW Government established the Information and Communication Technology Industry Skills Consultative Group to advise on the development of a NSW ICT Skills Action Plan. The Consultative Group continues to advise the Government on the implementation of the Action Plan.

In mid 2001, the Information and Communication Technology Skills Unit was established in the Department of Information Technology and Management to coordinate the implementation of the ICT Skills Program in NSW.

4.2.3 Specialist ICT skills

The ICT Skills Action Plan incorporates a program to develop ICT contracts skills transfer components to transfer skills and knowledge back to the agency. It is not necessarily the case that the ICT sector poaches the trained ICT employee, more that higher remunerations are available in the private sector.

A project, consisting of a number of sub projects has been established to develop a Public Sector ICT skills development program that will enable the public sector to meet the demand for specialist and technical ICT skills and to retrain displaced workers and middle management into areas of ICT.

The first of those sub projects is the "Women in Information Technology project" which is being driven by the Office of the Director of Equal Opportunity in Public Employment (ODEOPE). The project Team has representatives from The Pubic Sector Management Office, Department for Women, Department of Education & Training, TAFE and the Office of Information Technology.

This project consists of establishing a number of small pilots to determine how women can be attracted, trained and placed into skilled ICT occupations within their current agencies through re-skilling.

There are a number of outcomes anticipated from these pilot projects. These include:

- developing a cost effective strategy for reskilling to enable the host pilot agencies to use existing employees to meet their ICT skills shortages,

- the identification of any employee relations issues that need to be addressed with implementing a program to reskill existing Pubic Sector employees for ICT careers; and

- the development of a best practice model to assist Public Sector employers to meet their ICT skills shortages through reskilling of existing staff, displaced workers and middle management.

4.3 Audit observations

In respect to contract management capabilities, a sector wide gap has been identified and a working group met in response to this issue in March 2001. Premier's Department is currently working with the Institute of Public Administration Australia (IPAA) to broaden the scope of the "Effective Contract Management" course. Once finalised, the course will be endorsed by Premier's Department and promoted to agencies, highlighting the imperative for contract management training across the sector.

The Public Sector Management Office is currently examining sector Information Technology guidelines with a view to incorporating guidance and case studies to assist agencies apply good practice in human resource and industrial relations management.

4.4 Recommendation

- The ICT Skills Action Plan is the first step in addressing the ICT skills gap and is gathering momentum for addressing shortages. With the establishment and recruitment for the ICT Skills Unit completed, the Unit will work with central and agency level to identify and address the issues associated with the ICT skills shortage.

- That research and analysis into factors that may impact on the planning and delivery of ICT skills initiatives will be undertaken in accordance with the ICT Skills Action Plan.

- That the implementation of the Government's ICT Skills Action Plan will be driven to develop an ICT Skills base in NSW that will meet current and future public sector and information industry requirements.

Formal Response to Funding and expenditure

5.2 Implementation on action

The Government already has a number of established practices in place to ensure e-Government is aligned with overall policy directions and priorities (both Information and Communications Technology (ICT) and non ICT based) and receives appropriate budget funding.

Since 1999 the Government has adopted a number of targeted funding strategies to implement its ICT priorities so that the maximum number of agencies can benefit. One way this is being achieved is through the *connect.nsw* funding program which provides a ready pool of funds to kick start innovative Electronic Service Delivery as well as whole of government and cluster/sector based initiatives. The *connect.nsw* program has received funding of more than $30 million since 1998/1999 when it commenced.

Agency IM&T Strategic Plans are received by the Department of Information Technology and Management annually for alignment with Government ICT policy and strategic directions and in respect to priority implementation. As well all major new agency ICT investment proposals costing $500,000 or more are assessed by the Department of Information Technology and Management as part of the annual budget process.

5.2.2 Processes

The Government has always had an established budget process within which agency proposals for major capital expenditure, including ICT proposals, are assessed. The Department of Information Technology and Management assists Treasury by providing an expert assessment of major capital project proposals that have an ICT component. This assessment supplements Treasury's usual economic assessment of major capital proposals. The Budget Committee of Cabinet has endorsed this well established process.

Funding for the *connect.nsw* program was also sought using the same, established budget process for major capital expenditure. The *connect.nsw* funding program provides a ready pool of funds to kick start innovative Electronic Service Delivery as well as whole government and cluster/sector based initiatives. The connect.nsw program has received funding of more than $30 million since 1998/1999 when it commenced.

NSW Government recognises the potential for innovative funding arrangements with the private sector, such as arrangements where private companies would establish infrastructure and then recover their costs through user/transaction fees. The Request for Tenders for the Electronic Marketplace, managed by the Department of Public Works and Services will include requests for innovative funding options, within appropriate risk management frameworks, and views were sought earlier from the private sector on alternatives for funding and operations when Expressions of Interest were sought for the E-Marketplace.

The traditional Government budget funding process does not discourage cross agency Information and Communications Technology (ICT) funding proposals. A significant number of cross agency ICT proposals have been funded since 1995. These include:

- Justice Agencies Data Exchange (phases 1 & 2) (funded since 1995)

- *connect.nsw* (funded in 1999/2000)

- Government Radio Network (funded since 1993/1994)
- Human Services Better Service Delivery Program (funded in 2001/2002)

- Connecting Business (funded in 2001/2002)

- Government Access Centre Pilot Program (funded since 1999/2000

- Employee Self Service (funded since 2000/2001)

- Spatial Information Partnering (funded in 1999/2000)

- Visitors Services Agencies Virtual agency network (funded in 1999/2000 and 2001/2002)

- Teleworking Pilot program (funded in 1999/2000)

- Justice Sector Videoconferencing (funded in 2000/2001)

- Health Sector Electronic Health Record (funded since 2000/2001)

- Health Sector Improved Patient information (funded since 2000/2001)

- Natural Resources Sector Community Access to Natural Resources Information (CANRI) (funded since 2000/2001)

- Justice Sector Criminal Histories project (funded since 2000/2001)

- Intelligent Planning Framework (funded in 2001/2002)

This was reinforced in May 2000 when Cabinet endorsed an action plan for agencies to improve their ability to share information and technology between related agencies.

Appropriate targeted funding has been, and will continue to be, directed to key cross agency ICT proposals that are aligned with wider Government policy directions and driven by a business need. This is reflected in funding for 2001/2002 where the Connecting Business and Human Services Better Service Delivery programs received over $14M to streamline business processes across a number of agencies, enhance service delivery to clients and deliver efficiencies for Government.

As well, a cluster or multi agency strategy is being developed to build on, and expand cross agency ICT programs. The Strategy will identify and focus attention in key areas where the Government can significantly streamline business processes and improve service delivery to the community across agencies.

The Department of Information Technology and Management has whole of government responsibility for developing and driving whole of government initiatives for the use and management of information and communications technology within government, and in industry and the community. It is therefore appropriate that the Department and the CEO's e-Government Committee assess single and multi / cross agency ICT proposals in respect to their alignment and consistency with whole of government ICT directions and priorities. However, this is not the only assessment criteria used.

New ICT proposals are assessed against a range of criteria which include:

- alignment of proposals with whole of government information and communications technology strategic directions and priorities, particularly those that support integrated electronic service delivery, information and infrastructure sharing and the use of core telecommunications contracts that were endorsed by Cabinet in May 2000,

- alignment with wider Government policy and priorities,

- alignment with agency business needs and priorities,

- suitability of technology selected,

- inter-relationships and dependencies between existing and new projects,

- capacity of an agency to implement the proposal,

- comprehensiveness of information provided by agencies in business cases and supplementary information in respect to project deliverables, timelines, cost/benefit analysis, expected benefits, change management and expenditure (including reasonableness of costs proposed).

All ICT proposals submitted to the Department of Information Technology and Management are required to include a cost/benefit analysis and benefits realisation register. These requirements are clearly stated in the Annual Treasury Circular issued to all agencies and the Office of Information Technology (OIT) Business Case Development Guideline. Agencies are also required to comply with Treasury Guidelines for Financial Appraisal and Economic Appraisal.

One of the assessment criteria used by the Department of Information Technology and Management is the reasonableness of the cost of a proposal. Proposal costs are assessed against wider industry standards and experience of other agencies in implementing similar proposals. As part of the wider budget preparation process, Treasury assesses ICT proposals in respect to an agency's or group of agencies' overall annual budget submissions. Included in this process in an assessment of the adequacy of financial appraisals and the impact on current service delivery for all programs (both ICT and non ICT).

5.2.3 Monitoring Results

All agencies are required to undertake post implementation reviews of their business programs (ICT and non-ICT) on an ongoing basis as part of the Treasury's guidelines for best practice on Internal Control. (Treasurer's Direction No. 720 and Treasury Circular TC95/8 issued on 22 June 1995). This includes ICT development programs undertaken by an agency. (Treasury Technical Paper TPP95b 'Internal Control Assessment', NSW Treasury, June 1995, page 22)

Many agencies undertake these reviews as part of their annual Internal Audit program and report on the outcomes in the agency's annual report. The management of this program is an issue of accountability for agency Chief Executive Officers and Boards. Agencies are not required to submit the results of these reviews to any external agency for review (except the Audit Office and Review and Reform Division (Program Review) if requested), but instead the results are used internally to support program improvement strategies.

In the case of multi agency initiatives, individual agencies, or lead agencies on behalf of multi agency programs, are required to measure and evaluate the benefits flowing from the investment in ICT as part of their normal performance management programs**.**

All proposals for new capital funding are required to identify the savings and benefits that are expected to be delivered if the project is funded. Treasury funds major capital investment projects (ICT and non-ICT) only if an agency has demonstrated a favourable cost/benefit outcome in its business case. If Treasury approves and funds these projects, the agency's budget may be adjusted (downwards) by the savings that are claimed, in the year/s in which the agency claims it will realise those savings. This practice ensures that the savings promised by an agency in its funding submissions are immediately reflected in its forward budget estimates.

The Department of Information Technology and Management has convened a cross-agency Working Group on Benefits Realisation which is developing a cost-effective mechanism to collect information on the achievement of ICT benefits with minimal inconvenience to agencies. A 12 month pilot project involving the Department of Information Technology and Management, Attorney-General's, Health, and the Department of Public Works and Services, to investigate the level of information already generated within agencies' own management reporting processes and how this can be aggregated and analysed on a whole of government basis. A report on the outcome of the pilot and issues for wider government implementation will be provided to the CEO's e-Government Committee in 2002.

5.3 Audit Observations

The Government has overarching policy priorities and commitments in the areas of access and equity, social justice, fiscal responsibility and public sector reform. It should be acknowledged that Government funding is appropriately directed in accordance with these priority policy areas and where there is a sound business reason driving the need for expenditure.

Funding priorities for each year are determined by the Budget Committee of Cabinet in close consultation with individual Ministers and agencies. As is the case with all major single agency, multiple agency or across government business programs, funding for new ICT proposals, are addressed as part of this process.

5.4 Recommendation

- There will always be a surplus of funding requests from agencies (both Information and Communications Technology (ICT) and non-ICT based) that will not be able to be funded from existing finite resources. Funding allocations (both ICT and non ICT) will always be determined in accordance with overall Government policy priorities.

- The Government has in place a number of established funding practices to ensure e-Government is aligned with other Government policy directions, both Information and Communication Technology (ICT) and non-ICT based.

- Since 1999, the Government has adopted a number of target funding strategies to implement its Information and Communications Technology (ICT) priorities so that the maximum number of agencies benefit. This is being achieved through the *connect.nsw* funding program and significant Electronic Service Delivery (ESD) programs such as connectingBusiness and Electronic Patient Information across the NSW Health Sector.

- The CEO's e-Government Committee is responsible for building on and extending the efforts of central and line agencies achieved since the implementation of the Blueprint in 1997. The Committee will oversight and steer the e-Government drive in NSW, and will be directly assisted in this role by the Department of Information Technology and Management.

- Amongst a range of issues to be considered by the e-Government Committee will be a strengthened role in ensuring that ICT proposals assessed as high priority are funded; consideration of innovative funding models for ICT initiatives; and continuous improvement of financial management practices to ensure they meet both the Government's wider policy priorities as well as ICT priorities.

Formal Response to Security

6.1 Key initiatives

In early August 2001 Cabinet agreed to a program for improving information security in the NSW public sector as proposed by the Minister for Information Technology. Actions are already underway to implement the program.

The Department of Information Technology and Management has strongly encouraged agencies to be certified to the Australian Standard for Information Security Management Systems (as per the recently revised Information Security Guideline). To assist agencies in achieving this, the Department of Information Technology and Management is sponsoring a new panel contract which will include certification services. This is expected to be available for use by agencies later this year. The panel contract will also provide a range of information security products available for purchase and consultant services to develop and implement information security plans, providers and procedures (as outlined in the Office of Information Technology information security Guidelines and endorsed by Cabinet).

6.2 Implementation in action

Section 12 of the Privacy and Personal Information Protection Act requires agencies to take reasonable security safeguards to protect personal information held by them. The Act does not require agencies to provide a secure means of transmission when collecting information from individuals, an issue of increasing relevance in the online environment. Concerns over the security, particularly of identification and financial data is a significant factor in people's willingness to undertake online transactions and appears to be a contributor to the disappointing take-up of these services to date.[41]

6.3 Audit observations

Privacy NSW encourages agencies to pursue a risk assessment approach to securing their holdings of personal information, to comply with existing information security standards and integrate corporate security policies with their privacy management plans.

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[41] L F Cranor, J Reagle and M S Ackerman, *Beyond Concern: Understanding Net Users' Attitudes about Online Privacy*, AT&T Labs, 14 April 1999
<http://www.research.att.com/resources/trs/TRs/99/99.4/99.4.3.abs.html>

The Department of Information Technology and Management provides general advice and guidance to agencies on information security. However, it should be acknowledged that agencies will always be required to seek in depth information security expertise to meet their individual needs.

6.4 Recommendation

- Enhanced information security management in the NSW public sector is being addressed by the Government and progressive implementation of the recommendations arising from the recent Cabinet decision are underway.
- Where appropriate, implementation of key policy decisions will be referred to the CEO's e-Government Committee.

Formal Response to Privacy

The Audit Report correctly notes that for e-Government to work effectively the public's concerns about privacy must be seen to be credibly addressed. It also refers to the uncertainty among agencies about how privacy legislation affects issues associated with electronic databases and online services.

The Department of Information Technology and Management advises that it has been working with Privacy NSW to develop an Office of Information Technology Privacy Guideline to assist agencies in balancing privacy and other public interests when implementing e-Government initiatives such as the ability to share information for the purposes of better client services.

In developing the Guideline a number of areas raised by Privacy NSW (as outlined below) will be addressed.

Privacy NSW Comments

A recent survey conducted for the Office of the Federal Privacy Commission reflected continuing high levels of public concern about the protection of personal information.

> *Approximately 89% of the population thought it was important that organisations advise them who would have access to their personal information, with two-thirds (66%) rating this as very important. As few as 1 in 20 (5%) thought such advice wasn't an important issue.*

> *As well as wanting to know who may have access to their personal information, the desire to know how their personal information might be used was also strong with more than 9 in 10 (92%) rating this type of information as important. Again, this information was seen to be very important for over two-thirds (68%) of the population.*

> *… the practice of using information for a purpose other than that which was originally intended was of concern for 68% of the population with 41% recording great concern, and 23% recording little or no concern.*

A total of 14% of people had decided not to deal with a government organisation because of concerns about the use and protection of their personal information. This lower figure (compared to 42% who had refused to deal with businesses due to privacy concerns) is probably partly due to the fact that often there's little choice when it comes to dealing with government agencies. [42]

The 14% result in the last of these excerpts is more likely to reflect the situation in relation to traditional forms of Government information collection and may rise with any substantial migration of services online.

The public's knowledge of privacy laws appears to contribute to some extent to the level of confidence that their privacy is protected by Government but not to resolve all concerns.[43] A public perception that when individuals provide information to one arm of Government they have no control over its subsequent use by other agencies represents a major challenge for e-Government. Privacy laws can address this perception, however, the uneven application of the NSW legislation in areas such as law enforcement places limits on the level of trust and confidence such laws can inspire

7.2.1 Privacy legislation

The Privacy and Personal Information Protection Act goes some way to address concerns over appropriate use of information by adopting international privacy principles which address purpose specification, collection and use limitation, secure storage openness and accountability. These principles are applied by way of the information protection principles in Part 2 Division 1 of the Act.

By themselves the information protection principles might appear to severely restrict:

    a) the collection of personal information by an agency from anyone apart from the individual concerned,

    b) all uses for unrelated purposes, and

    c) all exchanges between public sector agencies which are not notified to the individual at the time of collection or disclosed for a directly related purpose to which the individual would not object.

In fact each of the above restrictions are significantly modified by:

    a) a range of exemptions, possibly the most significant being individual consent, or where collection, use or disclosure is authorised, required reasonably contemplated or necessarily intended by law; and

    b) privacy codes of practice which modify the application of the principles, directions by the Privacy Commissioner which have similar effect, or by regulation.

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[42] Roy Morgan Research, *Privacy and the Community*, Report Prepared for the Office of the Federal Privacy Commissioner July 2001, chapter 4. Paras 4.8, 4.9, 4.16, 4.3
[43] P 6, K Lasky & A Fletcher, *The Future of Privacy Volume 2 Public trust in the use of private information*, Demos, London 1998, p101

The legislative approach followed by privacy legislation is not always easy to reconcile with a whole of Government model which treats the Government as a single entity and allows broad exemptions for routine exchanges between agencies in order to facilitate e-Government. Pursuing such a model without regard to its privacy implications would undermine the overall credibility of privacy legislation.

7.2.2 Privacy and Information Sharing

The basic principles behind NSW privacy legislation date from the period when the scope for online transactions was less developed and there are doubts whether these principles fully address emerging issues, such as secure collection of data online and the right to engage in anonymous transactions where practicable (addressed in the recent amendments to the Federal Privacy Act). The Act allows for some relaxation of the principles through the making of privacy codes of practice. However codes are prohibited from imposing requirements which are more stringent than the information protection principles themselves. This makes it difficult to tailor the provisions of a code in a way which permits inter-agency exchanges while providing greater protection for other aspects of privacy.

To illustrate this point, shortly after the Privacy and Personal Information Protection Act came into operation Privacy NSW was asked to prepare a privacy code of practice to expedite inter-agency transfers of personal information. The progress of this code provides food for thought on the relationship between privacy and e-Government. The narrowing of the original proposal for a privacy code of practice for inter-agency transfers to the point where the proposed code only covers a narrow range of transfers dealing with auditing and ministerial staff reflects the inherent problems encountered in trying to develop a more general code which did not amount to a wholesale abandonment of the Act's central principles.

Given the existing restrictions on what can be included in a code of practice, any code to expedite electronic service delivery under the current legislation will need to be implemented as part of a broader overall strategy which should include:

a) comprehensive notification to individuals about how their information is to be used;

b) limitations on the purposes for which information can be used by agencies who are party to the exchange;

c) data transfer standards which guarantee the continued relevance, accuracy and completeness of information as it migrates from one agency to another;

d) the ability of individuals to trace their information through the various locations where it is held, and exercise correction rights; and

e) effective accountability mechanisms which allow individuals to challenge the misuse of their information wherever it occurs.

Properly designed online service delivery can enhance privacy protection, for example by providing automated facilities to notify people of the terms and conditions under which their information is collected and held, seek their consent to, or views on proposed use or disclosure and allow them to track, access and correct the information they have provided. These facilities need to be designed into projects from the ground up and coordinated with secure means of authentication.

7.2.3 Website Privacy statements

Privacy statements in agency web pages (about which Privacy NSW is currently completing some advice) should accurately reflect the procedures and commitments made by the agencies concerned. At the same time an agency should be aware that in making a commitment to privacy it stands to be judged by that commitment. A demonstrated failure to live up to the commitment risks undermining confidence in the overall e-Government process.

7.3 Audit observations

Privacy NSW recognises the value of enhanced citizen access to Government, a free flow of information to support this process and more efficient delivery of public services. These values are not inconsistent with appropriate privacy protection and the NSW Privacy Commissioner advocates that Privacy NSW is committed to a unified approach to furthering them and supports the recommendations in the Report for a more coordinated and innovative approach to e-Government bearing in mind the limitations inherent in the legislation he is responsible for applying.

7.4 Recommendation

- The Department of Information Technology and Management will continue to work with Privacy NSW on the development of policies and guidelines that will assist agencies in balancing privacy and other public interests in the implementation of e-Government initiatives such as the ability to share information for the purposes of better client services. This process is well underway for connectingBusiness, the Human Services Better Service Delivery Program and the development of an electronic health record.

- Where appropriate, implementation of key policy decisions will be referred to the CEO's e-Government Committee.

Formal Response to Technology and information management

8.2.2 Technical interoperability

The willingness of contracted service providers to inter-operative systems because of commercial agendas is a major factor which is being addressed by the Department of Information Technology and Management.

Government Network Service

The Report should acknowledge that work is being finalised by the Department of Information Technology and Management on a whole of government audit of government owned telecommunications infrastructure and assets, and a Government Telecommunication Strategy.

8.2.6 e-Procurement

The *NSW Government E-Procurement Implementation Strategy* is a major Government initiative which meets the call of the Audit Office to "expedite the implementation of e-procurement." The Strategy gives strong support for "expanding electronic tendering and the development of a NSW Government e-marketplace," as called for by the Audit Office. It also addresses many other issues raised in the Audit Office report, such as the need for reform of administrative processes within and between agencies, the need for additional support and assistance from central agencies, and the need to expedite the widespread implementation of e-procurement utilising the lessons learnt from early adopters.

With the release of the *NSW Government Electronic Procurement Implementation Strategy*, the Minister for Public Works and Services also issued a CD-ROM containing the strategy and supporting documents. Included in the CD-ROM are guidelines which assist agencies in developing their approach to electronic procurement. These include the *Business Case guidelines* (NSW Premier's Department), *Risk Management in Electronic Procurement – Strategies for Implementation* (DPWS), *Government Framework for National Co-operation on Electronic Procurement* (provisional) (Australian Procurement and Construction Council) and a series of procurement guidelines.

The key elements of the Strategy relating to implementation by agencies are:
- agencies reviewing and re-engineering procurement processes - agencies need to analyse their business needs, understand their procurement profiles, process and capability to take up e-procurement (strategy 2)

- Business Entry Point - a government website which provides a single entry point to all government business opportunities (strategy 4),

- electronic tendering - an electronic tendering system which allows users to access tender information and lodge tenders online (strategy 5),

- electronic marketplace for the procurement of goods and services online (strategy 6),

- project web – a collaborative tool which allows all stakeholders in the design and construction process, including the community, to view project information and documents over the Internet (strategy 7),

- performance monitoring and reporting – agencies will address the progress of their e-procurement implementation for goods and services in their annual procurement plans. For construction related e-procurement implementation progress, the CPSC will conduct an annual survey. The Department of Public Works and Services will coordinate the responses and prepare a report for the Minister for Public Works and Services, for presentation to the Budget Committee of Cabinet. (strategy 13).

Other relevant initiatives identified in the strategy include:
- Central agencies, including the Department of Public Works and Services, Department of Information Technology and Management, and the Audit Office, will work together to remove legal and regulatory impediments to e-procurement. Guidelines will be provided to agencies to assist them with adjusting their delegations to suit e-procurement (strategy 1)

- Department of Public Works and Services will prepare a guide providing advice on risk management strategies (strategy 1)

- Department of Public Works and Services will provide guidance to agencies on developing their e-procurement implementation strategies, with an emphasis on agencies' assessing their internal processes and capabilities to take up e-procurement and looking at opportunities for re-engineering of internal processes (strategy 2).

- Knowledge and experience about e-procurement will be shared through case studies, identification of successes in other jurisdictions, resource guides, and seminars (strategies 3 and 10)

Target dates for the implementation of the strategies have been established and are outlined in the implementation strategy.

8.4 Recommendation

- The e-procurement strategy will addressing the issues of:

  - Increased the rate of migration to common network infrastructure

  - Application of cost-benefit approach to addressing interoperability issues associated with legacy systems, which recognises whole of government benefits

  - Implementation of e-procurement, with particular emphasis on expanding electronic tendering and the development of a NSW Government e-marketplace

- The NSW Government is supporting the development of open versus prescribed standards, which will be necessary to underpin e-procurement. It is in the interests of the Government not to lock itself into any propriety e-procurement systems before open standards are adopted internationally.

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.

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

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

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 is on the Internet and located at http://www.audit.nsw.gov.au/guides-bp/bpglist.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.

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Performance Audit Reports

No.	Agency or Issue Examined	Title of Performance Audit Report or Publication	Date Tabled in Parliament or Published
1	Department of Housing	*Public Housing Construction: Selected Management Matters*	5 December 1991
2	Police Service, Department of Corrective Services, Ambulance Service, Fire Brigades and Others	*Training and Development for the State's Disciplined Services:* *Stream 1 - Training Facilities*	24 September 1992
3	Public Servant Housing	*Rental and Management Aspects of Public Servant Housing*	28 September 1992
4	Police Service	*Air Travel Arrangements*	8 December 1992
5	Fraud Control	*Fraud Control Strategies*	15 June 1993
6	HomeFund Program	*The Special Audit of the HomeFund Program*	17 September 1993
7	State Rail Authority	*Countrylink: A Review of Costs, Fare Levels, Concession Fares and CSO Arrangements*	10 December 1993
8	Ambulance Service, Fire Brigades	*Training and Development for the State's Disciplined Services:* *Stream 2 - Skills Maintenance Training*	13 December 1993
9*	Fraud Control	*Fraud Control: Developing an Effective Strategy* *(Better Practice Guide jointly published with the Office of Public Management, Premier's Department)*	30 March 1994
10	Aboriginal Land Council	*Statutory Investments and Business Enterprises*	31 August 1994
11	Aboriginal Land Claims	*Aboriginal Land Claims*	31 August 1994
12	Children's Services	*Preschool and Long Day Care*	10 October 1994
13	Roads and Traffic Authority	*Private Participation in the Provision of Public Infrastructure* *(Accounting Treatments; Sydney Harbour Tunnel; M4 Tollway; M5 Tollway)*	17 October 1994
14	Sydney Olympics 2000	*Review of Estimates*	18 November 1994
15	State Bank	*Special Audit Report: Proposed Sale of the State Bank of New South Wales*	13 January 1995
16	Roads and Traffic Authority	*The M2 Motorway*	31 January 1995
17	Department of Courts Administration	*Management of the Courts:* *A Preliminary Report*	5 April 1995
18*	Joint Operations in the Education Sector	*A Review of Establishment, Management and Effectiveness Issues* *(including a Guide to Better Practice)*	13 September 1995
19	Department of School Education	*Effective Utilisation of School Facilities*	29 September 1995

No.	Agency or Issue Examined	Title of Performance Audit Report or Publication	Date Tabled in Parliament or Published
20	Luna Park	*Luna Park*	12 October 1995
21	Government Advertising	*Government Advertising*	23 November 1995
22	Performance Auditing In NSW	*Implementation of Recommendations; and Improving Follow-Up Mechanisms*	6 December 1995
23*	Ethnic Affairs Commission	*Administration of Grants (including a Guide To Better Practice)*	7 December 1995
24	Department of Health	*Same Day Admissions*	12 December 1995
25	Environment Protection Authority	*Management and Regulation of Contaminated Sites: A Preliminary Report*	18 December 1995
26	State Rail Authority of NSW	*Internal Control*	14 May 1996
27	Building Services Corporation	*Inquiry into Outstanding Grievances*	9 August 1996
28	Newcastle Port Corporation	*Protected Disclosure*	19 September 1996
29*	Ambulance Service of New South Wales	*Charging and Revenue Collection (including a Guide to Better Practice in Debtors Administration)*	26 September 1996
30	Department of Public Works and Services	*Sale of the State Office Block*	17 October 1996
31	State Rail Authority	*Tangara Contract Finalisation*	19 November 1996
32	NSW Fire Brigades	*Fire Prevention*	5 December 1996
33	State Rail	*Accountability and Internal Review Arrangements at State Rail*	19 December 1996
34*	Corporate Credit Cards	*The Corporate Credit Card (including Guidelines for the Internal Control of the Corporate Credit Card)*	23 January 1997
35	NSW Health Department	*Medical Specialists: Rights of Private Practice Arrangements*	12 March 1997
36	NSW Agriculture	*Review of NSW Agriculture*	27 March 1997
37	Redundancy Arrangements	*Redundancy Arrangements*	17 April 1997
38	NSW Health Department	*Immunisation in New South Wales*	12 June 1997
39	Corporate Governance	*Corporate Governance Volume 1 : In Principle Volume 2 : In Practice*	17 June 1997
40	Department of Community Services and Ageing and Disability Department	*Large Residential Centres for People with a Disability in New South Wales*	26 June 1997
41	The Law Society Council of NSW, the Bar Council, the Legal Services Commissioner	*A Review of Activities Funded by the Statutory Interest Account*	30 June 1997
42	Roads and Traffic Authority	*Review of Eastern Distributor*	31 July 1997
43	Department of Public Works and Services	*1999-2000 Millennium Date Rollover: Preparedness of the NSW Public Sector*	8 December 1997

No.	Agency or Issue Examined	Title of Performance Audit Report or Publication	Date Tabled in Parliament or Published
44	Sydney Showground, Moore Park Trust	*Lease to Fox Studios Australia*	8 December 1997
45	Department of Public Works and Services	*Government Office Accommodation*	11 December 1997
46	Department of Housing	*Redevelopment Proposal for East Fairfield (Villawood) Estate*	29 January 1998
47	NSW Police Service	*Police Response to Calls for Assistance*	10 March 1998
48	Fraud Control	*Status Report on the Implementation of Fraud Control Strategies*	25 March 1998
49*	Corporate Governance	*On Board: guide to better practice for public sector governing and advisory boards (jointly published with Premier's Department)*	7 April 1998
50	Casino Surveillance	*Casino Surveillance as undertaken by the Director of Casino Surveillance and the Casino Control Authority*	10 June 1998
51	Office of State Revenue	*The Levying and Collection of Land Tax*	5 August 1998
52	NSW Public Sector	*Management of Sickness Absence NSW Public Sector Volume 1: Executive Briefing Volume 2: The Survey - Detailed Findings*	27 August 1998
53	NSW Police Service	*Police Response to Fraud*	14 October 1998
54	Hospital Emergency Departments	*Planning Statewide Services*	21 October 1998
55	NSW Public Sector	*Follow-up of Performance Audits: 1995 - 1997*	17 November 1998
56	NSW Health	*Management of Research: Infrastructure Grants Program - A Case Study*	25 November 1998
57	Rural Fire Service	*The Coordination of Bushfire Fighting Activities*	2 December 1998
58	Walsh Bay	*Review of Walsh Bay*	17 December 1998
59	NSW Senior Executive Service	*Professionalism and Integrity Volume One: Summary and Research Report Volume Two: Literature Review and Survey Findings*	17 December 1998
60	Department of State and Regional Development	*Provision of Industry Assistance*	21 December 1998
61	The Treasury	*Sale of the TAB*	23 December 1998
62	The Sydney 2000 Olympic and Paralympic Games	*Review of Estimates*	14 January 1999

No.	Agency or Issue Examined	Title of Performance Audit Report or Publication	Date Tabled in Parliament or Published
63	Department of Education and Training	*The School Accountability and Improvement Model*	12 May 1999
64*	Key Performance Indicators	• *Government-wide Framework* • *Defining and Measuring Performance (Better practice Principles)* • *Legal Aid Commission Case Study*	31 August 1999
65	Attorney General's Department	*Management of Court Waiting Times*	3 September 1999
66	Office of the Protective Commissioner Office of the Public Guardian	*Complaints and Review Processes*	28 September 1999
67	University of Western Sydney	*Administrative Arrangements*	17 November 1999
68	NSW Police Service	*Enforcement of Street Parking*	24 November 1999
69	Roads and Traffic Authority of NSW	*Planning for Road Maintenance*	1 December 1999
70	NSW Police Service	*Staff Rostering, Tasking and Allocation*	31 January 2000
71*	Academics' Paid Outside Work	▪ *Administrative Procedures* ▪ *Protection of Intellectual Property* ▪ *Minimum Standard Checklists* ▪ *Better Practice Examples*	7 February 2000
72	Hospital Emergency Departments	*Delivering Services to Patients*	15 March 2000
73	Department of Education and Training	*Using computers in schools for teaching and learning*	7 June 2000
74	Ageing and Disability Department	*Group Homes for people with disabilities in NSW*	27 June 2000
75	NSW Department of Transport	*Management of Road Passenger Transport Regulation*	6 September 2000
76	Judging Performance from Annual Reports	*Review of eight Agencies' Annual Reports*	29 November 2000
77*	Reporting Performance	*Better Practice Guide* *A guide to preparing performance information for annual reports*	29 November 2000
78	State Rail Authority (CityRail) State Transit Authority	*Fare Evasion on Public Transport*	6 December 2000
79	TAFE NSW	*Review of Administration*	6 February 2001
80	Ambulance Service of New South Wales	*Readiness to respond*	7 March 2001
81	Department of Housing	*Maintenance of Public Housing*	11 April 2001
82	Environment Protection Authority	*Controlling and Reducing Pollution from Industry*	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	*NSW Correctional Industries*	13 June 2001
84	Follow-up of Performance Audits	*Police Response to Calls for Assistance The Levying and Collection of Land Tax Coordination of Bushfire Fighting Activities*	20 June 2001
85*	Internal Financial Reporting	*Internal Financial Reporting including a Better Practice Guide*	27 June 2001
86	Follow-up of Performance Audits	*The School Accountability and Improvement Model (May 1999) The Management of Court Waiting Times (September 1999)*	14 September 2001
87	e-government	*Use of the Internet and related technologies to improve public sector performance*	September 2001
88*	e-ready, e-steady, e-government	*e-government readiness assessment guide*	September 2001

* Better Practice Guides

Performance Audits on our website
A list of performance audits tabled or published since March 1997, as well as those currently in progress, can be found on our website www.audit.nsw.gov.au

THE AUDIT OFFICE MISSION

Assisting Parliament improve the accountability and performance of the State