INFORMATION TECHNOLOGY STRATEGIC PLAN 2008-2011

OVERVIEW

1 This is the National Library of Australia's medium term plan for the development of its information technology infrastructure and services.

2 The Library invests in information technology for two reasons:

- to support and enhance the delivery of services to the Library's clients; and
- to enhance the effectiveness and efficiency of the Library's staff in their administrative and professional tasks.

3 This plan covers the period July 2008 to June 2011.

4 The plan identifies priority activities of high strategic value and the IT-based activities that will be undertaken to support them; it does not reflect all IT-based activities planned by the Library. In support of this high level strategic plan and other IT activities, detailed IT operational plans and programs will be developed for internal Library use.

5 The plan will be revised annually to reflect changes in the strategic environment and current priorities.

6 The primary responsibility for the Library's information technology services rests with the Information Technology Division. A description of the IT division and the major Library IT infrastructure is contained in Appendix 1.

7 The total indicative cost of IT activities for the Library is $24m over the period 2008-2011; of this, $15m is funded from the Library's operating budget (comprising annual employee and supplier expense components of $3.5m and $1.5m respectively); with the remaining costs funded from the Library's capital funds.

LIBRARY STRATEGIC CONTEXT

8 The National Library of Australia is a statutory authority established under the National Library Act 1960. The functions of the Library are defined in the Act:

- to maintain and develop a national collection of library material, including a comprehensive collection of library material relating to Australia and the Australian people;
- to make library material in the national collection available;
- to make available such other services in relation to Library matters and library materials as determined by the National Library Council; and
- to cooperate in library matters with authorities or persons, whether in Australia or elsewhere, concerned with library matters.

9 The goal of the Library is to ensure that "Australians have access to a national collection of library material to enhance learning, knowledge creation, enjoyment, or understanding of Australian life and society." (*Portfolio Budget Statement, 2008-2009*).

10 The Library's major undertaking identified in its *Directions for 2006-2008* is to "enhance learning and knowledge creation by further simplifying and integrating services that allow our users to find and get material, and by establishing new ways of collecting, sharing, recording, disseminating and preserving knowledge".

11 Development of the Library's information technology infrastructure and services is critical to achieving this objective.

LIBRARY AND INFORMATION TECHNOLOGY ISSUES

12 In 2006 the Library undertook a planning project to identify the IT architecture that will be needed to support the management, discovery and delivery of the National Library of Australia's collections over the next three years. The current architecture has enabled the Library to develop a significant digital library capability over the last decade. Now the burden of maintaining and supporting existing systems and services is increasingly hindering us from bringing new services online, improving the user experience, exploring new ideas or responding to technological change. In the meantime, enormous changes are occurring in the broader environment.

13 The project's final report identifies a new framework for building digital library services that should address these issues by:

- implementing a service-oriented architecture
- adopting a single-business approach
- considering open-source solutions when these are functional and robust.

Service-oriented architecture

14 Service-oriented architecture is a way of thinking about software as a set of interfaces that can be called to execute a business function. It is becoming widely accepted as best practice in the IT industry where its adoption is being enabled by the emergence of web services based on accepted standards. Implementing a service-oriented approach will result in efficiencies through the use of a common shared technical infrastructure that enables innovation supported by an overarching service framework allowing business owners and developers to have a shared understanding of requirements and directions.

Single business approach

15 Even with a service-oriented approach, the Library's capacity to meet its directions will continue to be eroded as new applications are brought online. As budgets continue to tighten and the Library needs to do more with less, there will come a time when a large proportion of development effort will be spent just maintaining existing applications. To help address this issue, and as part of implementing the service-oriented architecture, it is proposed that the Library regard its digital library services as a single business with a single data corpus that can be deployed in a range of contexts. Rather than developing separate applications to meet a new requirement, each requirement would be viewed as an enhancement to the business that could be deployed across all relevant business contexts. The single business model is a work in progress and is not reflected in the detailed content of this plan. It represents significant change to the way the Library currently works. As well as resulting in further significant efficiencies for IT staff, it has the potential to bring library staff together in unprecedented ways to work on problems and ideas and to prototype solutions that enhance the user experience regardless of the point of access.

16 In 2007, the Library completed two key initiatives as part of the single business approach.

17 Firstly, the Library defined an overarching service framework that will be used to enable the development of its digital library services as a single business through a service-oriented approach. The framework also outlines how each service is currently supported in the Library and identifies strategies for migrating to a more integrated technical infrastructure. The framework will be used in conjunction with business process modeling to provide a complete view of the requirements to be supported by the Library's digital library workflows.

18 Secondly, a Business Integration Taskforce was formed in order to give impetus to the recommendations of the IT Architecture Group. The taskforce proposed the development of a new discovery service to bring together the Library's work on projects and issues such as People Australia, the Newspaper Digitisation Project, the redevelopment of the Register of Australian Archives and Manuscripts, and the future of the Library's catalogue, Picture Australia, Music Australia, Australia Dancing, and the Libraries Australia free search service.

Open-source solutions

19 To achieve further efficiencies, it is also proposed that the Library regularly review the capability of the software products it uses and that, as part of this review, it consider open source solutions where these are robust and functional. For functionality developed in-house, it is proposed that the Library return intellectual property to the public domain.

IT ENVIRONMENTAL CONTEXT

20 The trends and technologies that are important to the Library and the potential threats, opportunities, or changes for the Library implied by those trends and technologies over the next three years include:

- The take up of a range of web-based services and technologies (e.g. blogs, wikis, and flickr) that support the management and distribution of information by individuals and communities; and the challenges and opportunities these present to the Library in terms of collecting material from these systems, as well as the use of such technology and social networks to facilitate knowledge creation and the use of its collections.
- The emergence of Web 2.0 services that explore the notions of:
  - the Web and all its connected devices as one global platform of reusable services and data;
  - data consumption and remixing from all sources, particularly user-generated content;
  - continuous and seamless update of software and data, often very rapidly;
  - rich and interactive user interfaces; and
  - an architecture of participation that encourages user contribution.
- The availability of affordable hardware and software that supports the mass digitisation of library materials; and the emergence of large non-library information providers such as Google who are looking at business models to exploit this.
- The emergence of players such as Google and Amazon offering information access mechanisms that are more scalable and in some ways better suited to many in the community, poses significant challenges to libraries to provide improved discovery services and access to information.
- The likelihood of real progress in the uptake of electronic books in the next three years through the availability of products such as Amazon's recently released wireless-based electronic book called "Kindle".
- The continuing failure of digital rights management systems to protect copyright will drive the development of new models for rewarding creators, which in turn will have implications for how libraries build and provide access to their collections.

STRATEGIES

21 The Library has identified six strategies requiring the development of the Library's information technology infrastructure arising from the Library's *Directions for 2006-2008* and the need to support the ongoing activities of the Library required under the Act.

Strategy 1: Upgrade the software and infrastructure components that support the acquisition, management and delivery of the Library's digital collections

22 Desired Outcome 1 in the *Directions for 2006-2008* deals with the collection and preservation of printed and electronic resources. The key IT strategy to support this Desired Outcome is to strengthen the technology that supports the acquisition, management and delivery of the Library's digital collections.

23 Since 1998 the Library has built and acquired the software and infrastructure components needed to support these collections. Using these components, the Library is developing an operational archive of web resources, is managing digitisation as a routine process, and is storing and delivering all types of digital collection material.

24 Our digital object storage solution was procured and installed in 2001, and its capacity has been regularly upgraded. There is a need to replace this infrastructure in order to handle the capacity and processing increases required by activities such as mass digitisation of newspapers and journals, an exponential increase in the volume of material archived from the web and emerging requirements that require material to remain online.

25 The Digital Collection Management and Delivery systems that were implemented in 2001 have continued to be enhanced to support the needs of the Library's digitisation program. There has been considerable progress in the development of open standards and software in the digital library context. The requirement to build a trusted digital repository to manage the acquisition and preservation of born digital content and support the ingest workflows of the different collection areas requires a new digital library architecture. A 'Digital Repository Options Study' was undertaken in 2007-2008 and its recommendations will be implemented through 2008-2011.

26 The Library acquires a range of born digital materials through voluntary deposit, as accompanying material to legal deposit books and serials, and as materials in special collections such as Manuscripts, Maps and Pictures. These items are at risk both because physical format digital carriers are unsuitable for long-term storage and because many digital formats are becoming obsolete. The Digital Preservation Workflow Project has developed the first stage of a workflow system for ensuring the long-term preservation, storage and access to these collection items. As digital preservation staff continue to identify risks, strategies and tools for preserving digital collection items, this infrastructure requires enhancement. Additional workflows also need to be implemented to support voluntary online deposit of digital materials. If the Library's effort to have legal deposit legislation extended to digital publications is successful, this infrastructure will be critical to fulfilling our mandate.

27 The Library is a member of the International Internet Preservation Consortium (IIPC) which currently has 36 member institutions, mostly national libraries and archives from Europe, North America, Asia and Oceania as well as other memory institutions. The IIPC has developed open source software specifically designed for the large-scale archiving of websites and the capability to search and browse the archive. International standards and protocols have also been developed. The Library needs to upgrade its web archiving infrastructure to make use of these tools and continue to improve the efficiency of tools used by curators and researchers.

Strategy 2: Maintain, enhance and consolidate Libraries Australia and the Library's other collaborative discovery services

28 Desired Outcome 2 in the *Directions for 2006-2008* is concerned with meeting the needs of our users for rapid and easy access to our collections and other resources. Among other things, it identifies an ongoing action to "enable the collections of Australian libraries and cultural institutions to be searched online and easily obtained".

29 The core service supporting this objective is Libraries Australia, which was implemented during 2004 and 2005. Libraries Australia is based on a central database of library collection data known as the Australian National Bibliographic Database (ANBD). The Library will continue to maintain and improve this service by creating or installing new releases of all four of its software components (Search, Cataloguing, Document Delivery, Administration).

30 A priority for Libraries Australia is to improve the user experience by implementing solutions for improved relevance ranking, clustering of versions of a work, faceted browsing and improved integration and linkages to related services.

31 Many Australian libraries are considering how to integrate Libraries Australia with their own services to meet the needs of their users for access to Australian library collections. For its part, the Library has identified a need to improve the inter-operability between Libraries Australia and local catalogues. The Library has identified a strategy to work with local system vendors to develop standards for communicating detailed holdings information to other systems, and for receiving requests from other systems. There is also a need to explore and if possible implement mechanisms through which data of purely local significance can be added to the ANBD.

32 Such developments would allow the public to find and get items held in Australian library collections following a search commenced in a public search engine (such as Google), another web service (such as Amazon) or a union catalogue (Libraries Australia). These developments would also give library users a greater ability to exercise choice to search either the nation's libraries, or their local collection only.

33 In addition to Libraries Australia, the Library provides the Picture Australia, Music Australia, Australia Dancing and the Register of Australian Archives and Manuscripts discovery services. The Library is developing a new collaborative service (People Australia) and is engaged in a Newspaper Digitisation Project. A high priority for the Library is to better support access to Australian journal material.

34 The Library has identified a need to consolidate discovery services into a single technical framework as part of adopting a single business approach to resource discovery. This would allow the services to be maintained more efficiently and to share a full range of functions.

35 The Library therefore plans to develop a "Single Business" discovery service, bringing together Libraries Australia free and subscription services and the Library's work on projects and issues such as People Australia, Journals Australia, the Newspaper Digitisation Project, the redevelopment of RAAM, and the future of the Library's catalogue, Picture Australia, Music Australia and Australia Dancing.

Strategy 3: Develop and deploy new full-text search software

36 Desired Outcome 2 in the *Directions for 2006-2008* identifies actions to "describe the content of our collections and reveal them to the world through new technologies" and "explore technologies that aid interrogation of our collections". These actions depend on the deployment of effective search technologies.

37 Search technologies are rapidly becoming more sophisticated, and user expectations are growing. For example, search software can present the user with "clusters" of documents grouped by similarity, use linguistic analysis to deal with alternate tenses, equivalent terms and misspellings, and exploit dictionaries and gazetteers to assist the search experience.

38 The Library currently supports search services through several software components. These include the public catalogue module of the Library's Integrated Library Management System (Voyager), the TeraText Database System that supports collaborative discovery services (including Libraries Australia), and the Verity Ultraseek product, which supports the Library's website search. The Library has decided to base these services on Lucene, a high-performance and open source search engine with strong support for features like relevance ranking and clustering of search results. The Library has deployed Lucene to index and search the PANDORA archive, the archive of the Australian web domain, and released a public catalogue service using open source Lucene-based software (VuFind), and intends to use Lucene to support searching of the Library's website, the database of Australian newspaper content and oral history interview transcripts.

39 Through the single business model discovery services project, the Library will integrate access to metadata, finding aids and full text content.

Strategy 4: Increase the range and quantity of digitised Library collection material through the online delivery of full-text content of Australian newspapers, journals and books

40 Desired Outcome 2 in the *Directions for 2006-2008* identifies actions to "increase the range and quantity of digitised Library collection materials". The Library has been producing digital images of selected significant Australian material (manuscripts, maps, music and printed collections as well as pictures) since 1996 and making these available not only through the Library's own Catalogue, Pictures Catalogue and Online Exhibitions but also through collaborative resource discovery services such as Libraries Australia, Picture Australia, Australia Dancing and Music Australia. In addition, URL lists of digital collection items are exposed to Internet search engines. Technology and the marketplace now support the large-scale conversion of printed text-based material into digital form that can be searched and displayed online. The Library will exploit this development to undertake the bulk digitisation of significant Australian material, beginning with newspapers, but extending over time to include journals, and possibly books. The achievement of this goal represents the Library's highest priority during the period of this plan.

41 The online Australian Newspapers service developed during this project will provide single point search access to the content of millions of pages of newspapers from around the nation, covering the period 1803 to 1954. The Library has procured services to undertake the large-scale digitisation of Australian newspapers and is putting in place systems to enable it to manage this material and to provide an online search and delivery system.

42 Experience gained and infrastructure developed during the newspaper project will be extended to Australian journals, and then to other print-based material.

Strategy 5: Provide online spaces to support publishing, collaboration, contribution and interaction

43 Desired Outcome 5 in the *Directions for 2006-2008* identifies actions to "ensure our relevance in a rapidly changing world, participate in new online communities and enhance our visibility".

44 New technology perspectives, often described as Web 2.0 applications, define an environment of data and system sharing that has long been a strategy of the library sector. New technologies and open standards and protocols are facilitating unmediated collaboration within the commercial and other sectors, opening up new opportunities and offering new challenges for the Library. Other organisations are providing services that traditionally have been provided by libraries. Consequently, the Library is looking to explore new ways to remain relevant at this time of rapid change. Wikipedia and del.icio.us are two examples of successful websites that have emerged from this new technology driven online world to engage the Library's traditional audience for information seeking and recommendation.

45 The Library will undertake a modest set of projects to explore successful web technologies, such as wikis and blogs, to forge new partnerships that reach beyond the traditional Library. There are lessons to be learned about how the Library can best take advantage of the new online medium, which can only be gained through experimentation.

46 There is an intention to explore new ways to engage with the users of our websites and the scholarly community that go beyond the Library's traditional role. The exploration of the governance of content creation when users of websites are allowed to also become contributors is needed. The Library needs to find a model that is suited to its context and its community. The goal is to capitalise on the added value that users could provide through a mechanism such as user annotation of the catalogue.

47 The Library is exploring new ways of collecting and providing access to online journals.

Strategy 6: Support the enhancement of business process efficiency and sustainability

48 The Library faces a number of significant and ongoing challenges with regard to resourcing activities in support of its print and digital collections. To enable business areas to achieve process efficiencies, the Library will undertake a major Workflow Analysis Project. This project will systematically model and review business processes with the goal of achieving improvements through automation and integration, the prototyping of new workflows, and the procurement and implementation of suitable management and support systems. This will be done in line with the Library's single business approach. The major needs identified are:

- acquisition, description and control of original materials;
- reproduction services and order processing; and
- tracking of items for digitisation, preservation and exhibition.

49 As the Library is becoming increasingly dependent on IT to fulfil its corporate objectives, IT will continue to improve the quality of service of existing infrastructure and applications through implementation of best practice processes. These benefits and improvements include:

- provision of more customer-focused IT services, with service quality/level agreements;
- IT services that are described better, in a customer language and in appropriate detail;
- better managed quality, availability, reliability, and cost of services through well-defined processes;
- provision of a coherent frame of reference for internal communications and communication with suppliers, and for the standardisation and identification of procedures.

50 As the traditional PABX approaches end-of-life, the Library will implement an Integrated Unified Communications (IUC) system based on Voice-Over-Internet-Protocol (VoIP) technology. An IUC system will allow us to integrate our telephony system with Library applications, such as the staff directory, helpdesk systems (Libraries Australia Helpdesk, Reference Helpdesk and IT Helpdesk).

KEY OBJECTIVES, ACTIVITIES AND TIMEFRAMES

51 To achieve the strategies identified above the following key objectives are identified and associated activities are planned.

Strategy 1: Upgrade the software and infrastructure components that support the acquisition, management and delivery of the Library's digital collections

Objective	Activities	Timeframe
Implement Digital Collections Architecture	Develop a digital object ingest service based on the SWORD protocol and the Australian METS Profile.	2008-2009
	Develop a digital collections metadata dissemination service based on the Australian METS Profile	2008-2009
Streamline physical and digital collection discovery and delivery	Enable digital collection discovery and delivery through the NLA catalogue and the single business discovery service	2009
	Integrate rights information with discovery, delivery and ordering services for both physical and digital items	2008-2009
	Support migration of legacy rights information to the Rights management system.	2008-2010
Develop and implement a plan for future digital collections storage	Replace the digital object storage infrastructure to handle the requirements of activities such as mass digitisation of newspapers and journals, active preservation processes, and increases in the volume of web archiving	2009-2011
	Implement a digital repository mirror site at an alternate physical location.	2010-2011
Extend and improve digital object upload processes	Implement support for integrated upload of oral history interview summaries and transcripts with audio files.	2008
	Implement support for acquisition of digital collection material through online deposit or harvest.	2008-2009
	Implement support for upload of collection finding aids (e.g. Map Index Sheets, manuscript finding aids)	2008-2009
	Provide simple desktop tools for uploading digitised images and audio files.	2009
Support long-term digital preservation requirements	Enhance digital preservation workflows with emerging tools and technologies for format identification, obsolescence notification, virus checking, integrity checking and authenticity verification	2009-2011
Extend and improve web archiving infrastructure	Provide selective access to subsets of the whole domain archive as access policies are developed.	2008-2009
	Implement standard web capture and access tools and archive format	2008-2009
	Implement workflows to support recommendations from the web archiving review	2008-2010

Strategy 2: Maintain, enhance and consolidate Libraries Australia and the Library's other collaborative discovery services

Objective	Activities	Timeframe
Enhancement and support of discovery and access services	Implement new releases of the Library's discovery services	2008-2010
	Improve the interoperability between Libraries Australia and local catalogues.	2008-2010
	Develop a "Single Business" discovery service, bringing together the Library's work on projects and issues such as People Australia, Journals Australia, the Newspaper Digitisation Project, the redevelopment of RAAM, Libraries Australia free and subscription services, and the future of the Library's catalogue, Picture Australia, Music Australia and Australia Dancing.	2008-2011
Improve user search experience for NLA Collections	Enhance the NLA Catalogue with a discovery service to provide access to the Library's physical and electronic collections through bibliographic records, finding aids, indexes and full text search.	2008-2009
Implement common user identity management services	Develop a user management service	2008-2010
	Integrate ILRS, ALG and Libraries Australia administration service into the user management system	2010

Strategy 3: Develop and deploy new full text search software

Objective	Activities	Timeframe
Implement a search system infrastructure to support full-text based services	Deploy Lucene as the search platform for the Library's website, manuscript finding aids and oral history interview transcripts.	2008-2010
	Using Lucene, develop a search and delivery service for the database of Australian newspaper content.	2008-2008
	Implement a search and delivery system for the Library's collection of whole-of-domain web captures.	2008

Strategy 4: Increase the range and quantity of digitised Library collection material through the online delivery of full-text content of Australian newspapers, journals and books

Objective	Activities	Timeframe
Implement Australian Newspapers service	Implement tracking, management and delivery systems.	2008
	Increase capacity of digital storage and delivery infrastructure to support digitised newspapers.	2008-2010
	Convert newspaper pages to digital image form and apply OCR and logical structure recognition processes to deliver article level XML documents and index the documents to support full text searching.	2008-2010
Support the digitisation and delivery of Australian journals	Implement tracking, management and delivery systems to support journal digitisation	2010
	Convert journal pages to digital image form and apply OCR and logical structure recognition processes to deliver article level XML documents and index the documents to support full text searching.	2010-2011

Strategy 5: Provide online spaces to support publishing, collaboration, contribution and interaction

Objective	Activities	Timeframe
Support user contribution of collection item descriptions	Enable users to record and share comments on items held in the Library's collections using the online Catalogue	2008
	Enable users to correct OCRed text in the Australian Newspaper service	2008-2009
	Prototype mechanisms to allow users to interact with Australian collection materials in ways that are meaningful to them using the single business discovery service	2009-2010
Provide a sustainable and efficient infrastructure to support collaborative scholarly publishing	Implement services to support collaborative scholarly publishing as identified in Electronic Publishing Review	2009-1010

Strategy 6: Support the enhancement of business process efficiency and sustainability

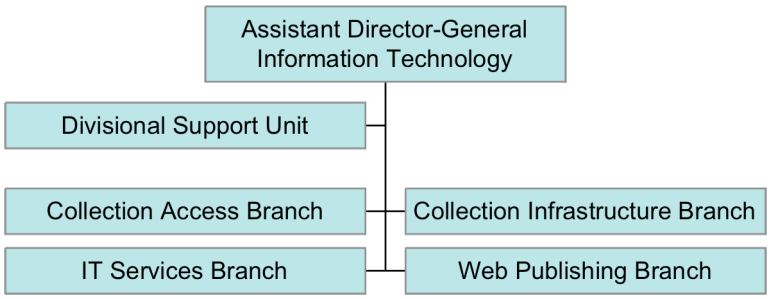
Objective	Activities	Timeframe
Identify potential collection management workflow improvements (Workflow Analysis Project)	Analyse workflows that deal with the acquisition, control preservation, reproduction & dissemination of the Library's collection material.	2008-2009
Achieve productivity enhancements in fulfilling orders and document supply requests	Design, develop and implement workflows as specified by the "New Reproduction Services Strategy – Streamlining Workflows" project".	2008-2011
Achieve efficiencies and improved control of collection items by implementing item tracking workflows for preservation, exhibition and digitisation	Implement a tracking system for all collection materials.	2009-2010
Improve efficiency of cataloguing and indexing processes	Pilot map indexing software for semi-automated cataloguing of maps in series. Implement a subject selection tool. Develop data models and implement ingestion software to enable (semi)-automatic generation of metadata from born digital publications.	2007-2008 2008 2010
Assist special collection areas to achieve efficiencies in the selection, acquisition, accessioning, control, description of and access to special collections	Implement and integrate an end-to-end heritage materials management system.	2008-2010
Implement recommendations of IT Architecture Report	Maintain and enhance the Library's Service Framework.	2008-2011
Maintain a well-managed framework for publishing web content	Improve search on ourWeb Evaluate and implement a content management system for NLA Web	2008 2008-2009
Improve IT Support Services	Implement Library-wide Service Level Agreements underpinning BSC reporting Enhance processes to provide improved reporting and timely resolution of problems	2008 2009
Implement Integrated Unified Communications System	Replace the PABX with a VoIP telephony system Integrate the VOIP System with Active Directory Integrate IUC system with appropriate applications	2009 2009 2009-2011

APPENDIX 1: INFORMATION TECHNOLOGY SUPPORT AND INFRASTRUCTURE

52 The primary responsibility for supporting the Library's information technology services rests with the Information Technology Division. This Division consists of approximately 44 positions, organised into four branches, as follows:

- Collection Access Branch: provides support and development of Libraries Australia and the Library's other discovery services such as Picture Australia, Music Australia, etc.
- Collection Infrastructure Branch: provides support for the development, implementation and maintenance of IT Systems that underpin the work of Library staff in building, managing and preserving its collections, both physical and digital.
- IT Services Branch: in partnership with business areas within the Library is responsible for client support and the operation of a range of IT-based Library services, including network services and the IT Help Desk.
- Web Publishing Branch: manages the framework for publishing web content and supports business areas in contributing high quality content to NLA Web and OurWeb.

Information Technology Division
Organisation Chart



53 The Library's information technology infrastructure consists of:

- 50 application and infrastructure servers, which use a range of operating systems (Solaris, Linux, MacOS X and Windows 2003);
- 100TB of online storage and 150TB of near-line tape storage;
- 800 desktop PCs (mostly Dell Pentium 4 machines, running Windows XP), 30 Macintosh desktop computers and 80 printers;
- a number of Ethernet local area networks, supporting the needs of staff, the public, Internet security;
- a wireless network for Library users in the reading rooms and public areas;
- a wide area network consisting of a 100Mbs link to the Internet; and a link between the main Library building and the Annex in Hume; and
- an Ericsson PABX, with about 540 connections, and a small VoIP system.

GLOSSARY

ALG	Australian Libraries Gateway
ANBD	See Australian National Bibliographic Database.
ARROW Discovery Service	The ARROW discovery service provides cross-disciplinary access to scholarly materials held by Australian universities.
Australia Dancing	The Australia Dancing portal, hosted by the National Library of Australia, provides users with access to both current and historical information about dance in Australia.
Australian National Bibliographic Database	The national database of material held in Australian libraries.
Australian web domain	A collective term for Australian websites.
Blog	Blog is short for weblog. A weblog is a journal (or newsletter) that is frequently updated and intended for general public reading or use.
Clustering	The process of organising search results into groups whose members are similar in some way; used to enhance searching of large collections of information.
Del.icio.us	A social bookmarking, social software web service for storing and sharing web bookmarks.
Digitisation	The process of converting information into a digital format. Used by the Library to support access to and preservation of physical format library material.
Endeavor Voyager	An Integrated Library System used by 1300 academic and research libraries around the world including the National Library of Australia.
Finding Aid	A guide to a manuscript collection. It functions much like the preface to a book in that it reveals the origin, background, contents, and arrangement of a collection.
Flickr	A digital photo sharing website and web services suite.
ILMS	Integrated Library Management System.
ILRS	Interlibrary Resource Sharing. The ILRS directory is a directory of Australian interlibrary loan and document delivery services and National Union Catalogue (NUC) symbols.
IUC	Integrated Unified Communications
Kindle	Amazon Kindle is an electronic book (e-book) device launched in the United States by Amazon.com in November 2007. It uses an electronic paper display, and downloads content wirelessly. The Kindle can be used stand alone without a computer.
Libraries Australia	Provides services to the library community which support the sharing of resources and which facilitate access to the information resources of Australian Libraries.
Music Australia	Music Australia is an online service that helps users to find, access and navigate a rich store of information on Australian music, musicians, organisations and services from a single

	access point.
NLA Web	The National Library of Australia external web servers.
OCR	Optical Character Recognition is software that converts text scanned as a graphic into text.
Open source software	Computer software available with its source code and under an open source license.
OurWeb	The National Library of Australia internal web servers.
PANDORA	Preserving and Accessing Networked Documentary Resources of Australia, Australia's Web Archive, a collection of Australian online publications.
Picture Australia	A service that allows users to search many significant online Australian pictorial collections at the same time.
Register of Australian Archives and Manuscripts (RAAM)	An online guide to collections of personal papers and non-governmental organisational records held by Australian libraries and archives.
Relevance ranking	A technique used by search engines to rank results so that the most useful results appear first.
Rights management system	Enables the management of intellectual property rights.
SOA	A service-oriented architecture is a way of thinking about software as a set of interfaces that can be called to execute a business function.
SRU	SRU (Search/Retrieve via URL) is a standard search protocol for Internet search queries, utilizing CQL (Common Query Language), a standard query syntax for representing queries.
TeraText	A database and search optimised to solve enterprise-wide text management problems.
Verity Ultraseek	A full-text search engine product.
VoIP	Voice over Internet Protocol is the term for a set of facilities used to deliver voice services over the Internet
VuFind	An open-source resource discovery portal.
Web 2.0	Refers to a second generation of services available on the World Wide Web that lets people collaborate and share information online.
Wiki	A website or similar online resource which allows users to add and edit content collectively.
Wikipedia	A free content, multilingual encyclopedia written collaboratively by contributors around the world. The site is a wiki - anybody can edit and add to an article.
XML	eXtensible Markup Language is a standard for creating markup languages which describe the structure of data.
Z39.50	Z39.50 is a standard communications protocol for the search and retrieval of bibliographic data in online databases.