

A NEW VIRTUAL ORGANISATION - THE LIBRARY CONSORTIUM OF NEW ZEALAND

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ABSTRACT

The Library Consortium of New Zealand (LCoNZ) is a new virtual organization, with an organisational structure characterized by distributed labour, and a constellation of trusted relationships expressed in a mix of formal and informal structures for collaboration. The paper describes this.

LCoNZ has been established to support member libraries working collaboratively to develop and operate a common information resource access and management system (IRAMS).

A limited liability Company has been incorporated under the Companies Act 1993, and registered with not-for-profit charitable status. The Company presently has four shareholders: Auckland University of Technology, University of Otago Holdings Limited, The University of Waikato, and Victoria University of Wellington. The Company has contractual agreements with Endeavor Information Systems Inc, the vendors of Voyager and ENCompass, and with Datacom Systems Ltd, who provide hosting services for all Voyager and ENCompass services. The libraries of the four shareholder universities are customers of LCoNZ for the IRAMS and related services. These same customer libraries also participate by providing some of the skills and expertise needed to deliver these services.

1 INTRODUCTION

Over the past decade, there has been a steady increase in the number of library consortia operating across different types of libraries and across different geographical boundaries. Ralph Alberico (2002) claims that technology and economics are driving consortial activity in a new direction. His overview of the Virtual Library of Virginia (VIVA) describes a shift in focus from funding infrastructure to building digital collections, and a consortium with a complex organizational matrix characterized by distributed labour and a constellation of trusted relationships.

Brian Hawkins (2000) in a paper on knowledge management in higher education refers to the differences between cooperation, coordination and collaboration. Co-operation is described as an informal, often superficial, way of working together. Co-ordination requires more commitment and involves resource sharing. Collaboration, on the other hand, requires the actual commitment and investment of resources based on a shared vision and creates a new community. Hawkins sees collaboration as essential for competitive survival in a period of rapid transformational change.

The Library Consortium of New Zealand (LCoNZ) is one of the new breed of consortia as described by Alberico, that fits the new model of collaboration as described by Hawkins.

This paper describes LCoNZ, an organisational structure characterized by distributed labour, and a constellation of trusted relationships expressed in a mix of formal and informal structures for collaboration.

2 FORMAL RELATIONSHIPS

Appropriate formal relationships and legal structures have been established to pursue the vision and objectives of the consortium, and these are described in this section. As we shall see in section 3, while formal relationships provide a framework, more is needed to fully realize the vision, and that is collaboration and trusted relationships.

2.1 SHARED VISION

The vision of the Library Consortium of New Zealand (LCoNZ) is to use and develop the best enabling technologies in a collaboration that will enhance the innovative delivery of library and information resources to the New Zealand tertiary learning and research community.

Developing an information resource access and management system (IRAMS) and associated services is the means of pursuing the vision. In support of this, business objectives are to:

- Provide a common interface with familiar functionality for the benefit of library patrons and the New Zealand research community;
- Maximise the value of the intellectual investment involved in selecting and implementing the shared system and in creating and operating a management structure for the benefits of the members of the consortium;
- Provide a strong development group to work in partnership with Endeavor and Datacom;
- Assist institutions considering joining the consortium and then support their smooth implementation minimising risk to both the institution and the consortium; and
- Ensure that the consortium operates in a cost effective manner while providing an environment that is advantageous to the members.

2.2 LEGAL FRAMEWORK

The formal legal structure to give effect to the Library Consortium of New Zealand has the legal name of LCo New Zealand Limited (LCoNZ). It was incorporated as a limited liability company under the Companies Act 1993 on 3 December 2003, and registered with not-for-profit status by Inland Revenue. It has four founding shareholders: Auckland University of Technology, University of Otago Holdings Limited, The University of Waikato, and Victoria University of Wellington.

In addition to the Company Constitution, a Shareholders Participation Agreement describes the way that shareholders will work together to further the objectives of the consortium. This agreement also includes provision for new university shareholders to join the consortium.

LCoNZ has contractual agreements with Endeavor Information Systems Incorporated, based in Chicago, for provision of an IRAMS with Voyager and ENCompass software and associated services; and with Datacom Systems Limited, in Auckland, who provide facilities management and hosting services for all IRAMS services.

2.3 LIMITED LIABILITY COMPANY

Why choose a company structure? This was considered the most appropriate structure for several reasons. This is the easiest way for members to join or exit the consortium. A company structure gives all the benefits of the Companies Act: discipline in the mode of operation, protection from risk, the ability to determine ownership, and a measure of independence from shareholders.

Surplus funds may be generated, and LCoNZ has the right to retain these resources to re-invest for future development, to use for growing the capacity of the system and developing additional functionality and services.

Within the tertiary and research sector in New Zealand, organisations that may wish to join LCoNZ include those with commercial status, such as Crown Research Institutes. In order not to compromise its tax-free status, LCoNZ would offer a customer relationship with commercial entities, but not a shareholder relationship.

A service level agreement or contract for service is being drawn up to describe the services that LCoNZ provides to all customers, including shareholders, so that the role of shareholder is separated from the role of customer.

2.4 CONZULSYS AND IRAMS

LCoNZ did not commence operation until 1 June 2004. From that date it has taken over and continued the initiative begun by the ConzulSys project. The history of ConzulSys has been well documented by Hudson and Dewe (2004) and Pullar and Kelly (2004). The following briefly summarises what is relevant to understand the establishment of LCoNZ.

ConzulSys was a consortium initiative by the four universities who later became founding shareholders of LCoNZ, who all had similar requirements to replace and upgrade their integrated library management systems (ILMS). This initiative was aligned with the 'Big Picture' report by Helen Renwick, which included a recommendation "that the university libraries implement common system software as the opportunities arise" (Renwick, 2002, p.27).

Consortium members agreed that they wanted to do more than merely replace their existing ILMS with a shared and improved version. They agreed to seek an information resource access and management system (IRAMS). This would include an ILMS to manage print based collections and services, and electronic resources and digital collections. An IRAMS would also include the full suite of software required to:

- access and manage licensed electronic resources;
- provide federated searching and deep linking at the digital content level; and
- provide support for storage, management and access to locally created digital objects.

They also sought an external host to manage separate databases for each library in a shared environment, rather than common software run on individual sites – a **shared** system rather than a **common** system.

After tender and selection processes, ConzulSys signed contracts with Endeavor and with Datacom. As part of founding LCoNZ, ConzulSys assigned all rights and obligations of both these contracts to LCoNZ. ConzulSys assets were also valued as at the date of incorporation, and these assets were assigned to LCoNZ as the establishment contribution from the four founding shareholders.

3 COLLABORATION AND TRUSTED RELATIONSHIPS

While formal relationships provide a framework, they are necessary but not sufficient to fully realize the vision of the consortium. Based on this shared vision the members of the consortium have also developed effective forms of collaboration, with very significant commitment and investment of resources. Associated with this, a constellation of trusted relationships are being nurtured within the consortium, expressed in principles for relationships, and put into practice through members sharing infrastructure, sharing workload, and sharing knowledge and expertise.

3.1 COMPANY GOVERNANCE AND MANAGEMENT

Under the provisions of the Companies Act, the Board of Directors has responsibility for the governance of LCoNZ. The role of the Board in this context is to effectively represent and promote the interests of shareholders with a view to adding to the long-term value of the Company's shares. Each founding shareholder appointed a director to the Board, bringing to the Board a range of library, finance and ICT experience. An independent Chair was also appointed.

The Board has appointed a General Manager, based at the LCoNZ Office in Wellington. He manages contracts with Endeavor and Datacom, service agreements with libraries, and leads consortium development projects. He also coordinates the project teams and groups of staff from the libraries, who contribute substantially to the work of the consortium and ensure that the consortium serves the interests of its members.

LCoNZ operates in a spirit of collaboration and collegiality with its customers, the libraries. The Company cannot function effectively unless the people in the libraries, through whom its operations are managed, are kept fully informed of the Company's strategy, the practical mechanisms by which work will get done, and agree to the impact that has on local resourcing. Recognizing the importance of these relationships, an Advisory Group was established, with representatives from each of the four

libraries. This Group provides advice to the General Manager and to the Board on operations, priorities, policies, and technical issues.

Terms of reference for the Advisory Group and a communication policy were agreed that provide a framework for communication between the Board and Advisory Group, and reflect the close working relationships necessary for success as a consortium. Whereas the deliberations of any ordinary commercial company Board are kept strictly confidential, communication within the consortium is much more open. Unless there is a commercially sensitive reason for not doing so, information prepared for the Board is also made available to the Advisory Group, usually through the General Manager, and this includes Board papers and minutes.

3.2 PRINCIPLES FOR RELATIONSHIPS

The vital importance of close working relationships is also reflected in the principles agreed to create, encourage and grow relationships in the consortium. These principles are:

- Value the goals of its member libraries.
 - While remaining autonomous, members will collaborate to maximise benefits to the consortium and to the nation. In an increasingly global world, the consortium recognises the need for sectoral and national strength.
- Recognise and acknowledge common good contributions.
 - Access to the combined resources of the consortium has benefit for all members, their libraries and patrons. All members participate in and contribute to the whole.
- Favour open communication, with “no surprises” on material issues.
 - Any issues or disagreements are aired within the consortium rather than outside, to continue to develop trust amongst members. Better, sustainable decision-making is regarded as coming from healthy dialogue.
- Treat its members as equal partners within the consortium.
 - Characterised by democratic decision-making processes, governance and equitable cost sharing methods.
- Foster a climate of responsible experimentation for business efficiency and service to patrons.
 - Encourage libraries and library staff to revise and redefine current IRAMS practices in line with changing needs, employ co-operative actions to help overcome inertia, to grow and develop library operations.
- Provide opportunities for shared problem solving amongst library staff.
 - Encourage the staff of its member libraries to do together what they would not be able to do on their own, extending and developing their capacity.
- Maximise interoperability.
 - Work to ensure standards-based, open and scalable information systems are employed to facilitate inter and intra institutional data exchange.

3.3 SHARING INFRASTRUCTURE

Members of the consortium have a shared system, using Voyager and ENCompass software from Endeavor, which operates in a shared environment.

Voyager modules have been implemented, including: acquisitions, cataloguing, serials, circulation, course reserve and OPAC.

ENCompass modules have been implemented and others are in development. LinkFinder Plus (LFP) was implemented during the third quarter of 2004. Implementation of ENCompass for Resource Access (ERA) began in the second quarter of 2004, with installation of ENCompass on the hosting environment. This was a significant accomplishment, since it was the first time anywhere in the world that this product had been installed in a distributed environment. Full go-live of ERA was delayed due to uncertainties about the hardware resources required for operation of ERA. Endeavor has now released an improved version (3.5) of ENCompass, which will be installed before ERA is fully implemented.

Work is under way on pilot projects for ENCompass for Digital Collections (EDC) in November 2005, and these pilots will be implemented after ERA during early 2005. Later in 2005 Universal Borrowing and Interlibrary Loans modules will also be implemented.

The software runs in a shared environment, hosted by Datacom, based in Auckland. Datacom provides the system architecture and manages the operation of the system. They install new software and manage system upgrades, in consultation with Endeavor and the LCoNZ Office. The hosting environment includes a test server and rigorous change management processes, so that formal acceptance testing process are planned, completed and signed off before changes are made to the production environment. Datacom have also developed load balancing and authentication tools for the hosted system.

The advantages of sharing infrastructure include economic benefits. A consortium is in a stronger position than individual customers to negotiate favorable contracts with software vendors, and has a stronger voice in negotiating fixes and enhancements. Consortium hosting charges have economies of scale that are spread across all consortium members. Similarly capital costs for infrastructure growth and enhancement can be spread over time and shared by the members.

Sharing infrastructure also offers benefits in system performance. Datacom manage the system to a contract of service, which specifies key performance indicators including availability of 99.5% or better, which they have consistently exceeded. There has been little system down time, a quick response to problems, priority access to expert technical advice, and a help desk service that is available 24/7. It would be difficult for any single library that elects to manage their own system, with or without the help of their university's information technology department, to match the service provided by Datacom who are an experienced and successful commercial operator of hosting services.

3.4 SHARING KNOWLEDGE AND EXPERTISE

Staff from the customer libraries perform much of the work of the consortium, working together through project teams and management groups. Project teams are either local teams, comprising team members from a single library focusing on local issues, or consortium teams, with representatives from each library and focusing on consortium wide issues. For example the WebVoyage consortium team worked together to develop a common OPAC interface (look and feel) for all customer libraries.

The work of the project teams is now coordinated by the General Manager, in the LCoNZ Office, who works with the Advisory Group for operational policy and team resourcing, and the Implementation Managers group for managing operations and projects. These consortium wide teams and groups conduct most of their business via listserves and teleconferences, scheduled each month for the Advisory Group and each week for the Implementation Managers group. Informal email and telephone contact is frequent, with face-to-face meetings scheduled occasionally when needed, usually in Wellington where the LCoNZ Office is based.

Working together in this way is an effective way for library staff to work and learn together, and to develop knowledge and expertise. For example, the Auckland University of Technology project teams have been interdepartmental and included staff from library assistant to director level. In addition, many individuals have developed working relationships in other libraries and now regularly communicate both formally and informally with their colleagues in other departments and libraries. In this way institutional barriers are starting to break down.

Project teams are also developing relationships with institutions outside the consortium. For example, in the pilot projects for ENCompass for Digital Collections, project teams are drawing on advice from Endeavor and the National Library of New Zealand.

For most library staff, the experience of working in project teams has been enjoyable and highly motivating. These teams are also effectively achieving the objectives of the libraries and the consortium to consistently high standards of quality, while costs and risks are rigorously managed.

3.5 SHARING WORKLOAD

Working in project teams and groups also shares the workload, as well as sharing knowledge and expertise. During the implementation of Voyager, for example, different local project teams undertook the acceptance testing of different modules (acquisitions, circulation, cataloguing, serials, course reserve) on behalf of the consortium. During the implementation of ENCompass for Resource Access, individual members of local teams have contributed ideas and solutions to joint problems, which in turn have benefited the consortium as a whole.

Although sharing workload may save time and effort, this may be lost to time and effort needed for sharing knowledge and expertise. For many staff, project and group work is perceived as additional to their routine tasks and responsibilities, although of course this is an issue for any library undertaking significant project or development work. Staff may also experience an apparent loss of autonomy. Consortium decision-making processes, although working for consensus, will sometimes require tradeoffs between different options, and these decisions will sometimes take priority over individual library preferences.

When the ConzulSys initiative began a professional project manager was hired to lead and manage the systems implementation. This consortium-funded resource has been extremely important in ensuring coordination of projects, and that they were completed on time and within budget. The General Manager of LCoNZ has now taken over continues this function,

Overall, working together by sharing knowledge and expertise, and sharing the workload across the consortium has resulted in lower risks and a more rapid process of system implementation, compared with the alternative of implementing the system in stand-alone libraries. More has been achieved with less.

4 CONCLUSIONS

The initial benefits of the consortium were realized by members once Voyager was implemented and in operation. Further benefits are anticipated as development and implementation of ENCompass products accelerates during 2005. The consortium also has room for expansion, with discussions in progress with tertiary and research institutions.

When only the Voyager modules had been implemented, it could be said that consortium members were simply replacing or upgrading their existing library systems. Now, however, the ENCompass suite of software products is being progressively developed and implemented. Libraries are building new services for patrons and leading new initiatives for digital collections and e-learning. There is limited experience of these new services. Consequently, crucial assets in pursuing these initiatives are collaboration and trusted relationships within the consortium, sharing infrastructure, sharing workload, and sharing knowledge and expertise.

5 ACKNOWLEDGEMENTS

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