Name of Project:
OhioLINK Cooperative Live Reference Project

Category of Application:
Innovative Use of Technology & Resource Sharing

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Date 5/8/01

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Date 5/8/2001

We certify local matching funds are available for this proposal and that funds are available for its continuation once funded.

Table of Contents

Title Page	1
Contents	2
Project Summary	3
Abstract	4
General Description	
Purpose in Relation to Needs	5
Long Range Plans	7
Measurable Objectives	7
Relation to LSTA Goals	
Number of Libraries Involved	8
How Will Project Assist in Achieving LSTA Goals	8
Connection to Other Programs	9
Technical Plan	10
Management Plan	
Key Personnel	12
Timeline	15
Project Sustainability	17
Project Evaluation	17
Budget and Justifications	20

Appendices

Appendix A: List of OhioLINK member libraries
Appendix B: Desired features for chat reference software
Appendix C: OhioLINK core databases
Appendix D: OhioLINK strategic plan
Appendix E: OhioLINK organization chart and committee information
Appendix F: Letter of Support
Appendix G: Hardware specifications for eGain Live software
Appendix H: Project Promotion Plan

Project Summary:

Name of agency: The Ohio Library and Information Network (OhioLINK)

Geographic area and population served: OhioLINK serves over 600,000 students, faculty and staff at 113 campus-based libraries at community colleges, four-year colleges, and universities throughout Ohio (see Appendix A).

Need: OhioLINK provides all students, faculty and staff access to 95 indexes and databases, whether the user is in the library or elsewhere. OhioLINK libraries need a way to provide real-time reference help to the increasing number of users outside the library.

Objectives: 1) Implement web-based chat reference system. 2) Answer questions through the chat service from at least 45 OhioLINK member institutions. 3) Train 25 reference librarians in use of chat software, and have them peer-instruct staff at their home and neighboring institutions. 4) Answer at least 80% of questions received in a manner deemed satisfactory by surveyed patrons.

Program activities and who will perform them:

- Selecting chat software –WebRef subcommittee of OhioLINK's User Services Committee and OhioLINK staff.
- Customization of software – contract programmer to be hired and supervised by OhioLINK staff.
- Regional training sessions – OhioLINK WebRef subcommittee, Training subcommittee, and other members of the User Services Committee.
- Promotion of service – OhioLINK staff and staff at individual institutions.
- Performing day-to-day reference chat service – staff at OhioLINK member libraries.
- Evaluation – WebRef subcommittee.

Explain method of evaluation 1) Review minimum qualifications for functionality and conduct tests to measure performance of the system. 2) Software will track users according to their home institutions. 3) Statistics and evaluations will be kept from regional and local training sessions. 4) An exit-survey of users will be conducted in April-May 2002 to determine satisfaction levels, and repeated in Oct-Nov 2002.

Budget:

Federal: $63,572.58 **Local:** $21,190.86 **Total:** $84,763.44

Abstract:

This project is for the purchase, customization and implementation of chat software to enable live, web-based reference services for the OhioLINK community. Librarians from OhioLINK member institutions will be trained in the use of the software and in quality online service techniques. This service will offer the OhioLINK community online point-of-use, real-time assistance with the complex array of OhioLINK resources. These include many resources accessible outside the libraries, from residence halls, homes and offices. Librarians will be available to answer questions regardless of the user's location or home institution.

The project will occur in several phases: software evaluation, selection and purchase; software and interface customization; librarian training; pilot service offered at 3-7 OhioLINK institutions; and promotion and implementation throughout the OhioLINK consortium. Based on librarians' experience with a variety of chat-based reference software, we plan to purchase off-the-shelf chat software and tailor it to libraries' needs. A set of desired features (see Appendix B) has been established and will be used in selecting software for this project.

The OhioLINK Cooperative Interactive Web Reference project will add a new mode of service for users by offering immediate human assistance regardless of location. By sharing a system and pooling human resources and expertise, the cooperative system will enable libraries to offer a service that most could not provide independently.

GENERAL DESCRIPTION OF THE PROJECT

State the purpose in relation to identified needs:

The Ohio Library and Information Network, OhioLINK, is a consortium of Ohio's college and university libraries and the State Library of Ohio. Serving more than 600,000 students, faculty, and staff at 79 institutions, OhioLINK's membership includes 17 public universities, 23 community/technical colleges, 38 private colleges and the State Library of Ohio. OhioLINK serves faculty, students, staff and other researchers at member institutions via 113 campus-based library systems and networks, and the Internet.

OhioLINK provides access to 98 research databases of which 95 core databases are available to all OhioLINK users (see Appendix C). Databases include both citation indexes and electronic full text, covering many academic areas at varying levels of detail. OhioLINK's electronic full-text resources include online books, journal articles, and literary works. Among its full-text resources the OhioLINK program provides access to general purpose and business journals most heavily used by the undergraduates and a growing collection of research journals from premier publishers and scholarly societies. Over 2 million articles are currently downloaded per year.

The increased availability of online library content and the growing demand for distance education are creating new populations of academic library users who are not physically located in the libraries. Such remote access to databases is particularly useful for students who do not live on campus, as well as for faculty and staff. An informal survey of OhioLINK member institutions revealed that approximately 81.5% of students live off-campus. The Ohio Learning Network estimates that 10,000 distance education students are enrolled at Ohio institutions.

It is apparent that our patrons are using the OhioLINK resources from off-campus. Our use statistics indicate that over 12% of database searches from March 2000 through March 2001 were from off-campus; this percentage does not even reflect users dialing in to a university network from home. These statistics suggest that many of our users are now outside of our physical libraries.

Until recently, users pursuing extensive research needed to physically come to the library; librarians were conveniently available at the point of need. Because more and more content is available from outside the library, it is no longer necessary to come into the library to use the high-quality resources to which libraries have access; it is currently difficult, however, to get access to high-quality research *help* outside the library. This project proposes to address the need for remote access to librarians by implementing software and services to make help available in this new library environment.

Presently, remote users may access librarians by telephone and e-mail; each of these options has drawbacks that will be mitigated by the new chat service. Telephones allow real-time interaction; but if users have only one phone line (as is the case in many homes), then telephone access to a librarian is not available while connected to the Internet. E-mail allows access to databases and communication simultaneously, but the asynchronous nature of e-mail makes it an unwieldy and unreliable venue for real-time help. We plan to use the chat software to allow real-time interaction with librarians while simultaneously enabling access to library databases.

Because there is a core of remotely available indexing and abstracting databases as well as full-text resources shared by all OhioLINK libraries, it is realistic for librarians from one consortium library to provide remote services to users from *any* OhioLINK

library. Our plan is to implement a web-based system allowing real-time reference chat service to our users. Links to the service will be added to most pages in the OhioLINK databases, so help from a librarian will be just a click and a chat away for any OhioLINK user. Individual libraries will be able to add links to the service from their web pages. A schedule will be developed to share staffing among OhioLINK member libraries.

Explain how the project relates to the long range plans of the libraries involved:

The first priority in OhioLINK's strategic plan (See Appendix D, p. 34 of this document) is to "continue to evolve and improve our electronic information delivery systems to connect users to needed information effectively – ours and that found on the Internet." One of the activities listed under this priority is the implementation of online reference desk services. The Cooperative Interactive Web Reference Project also addresses priority #3 of the long range plan (p. 35) to "maximize the impact of cooperation on our purchasing power to expand information access" by sharing a system and enabling libraries to offer a service that most could not provide independently.

Provide measurable objectives that will assist in achieving stated needs:

- Implement web-based chat reference system by February 2002.
- Answer questions through the chat service from users at a minimum of 45 OhioLINK member institutions in the first year of service.
- Train 25 reference librarians in use of chat software and quality online service techniques. These librarians will train staff at their home and neighboring institutions.
- Answer at least 80% of questions received in a manner deemed satisfactory by surveyed patrons.

RELATION OF PROJECT TO LSTA GOALS

Number of libraries/partners involved in the project:

The chat service will ultimately be available to all 79 OhioLINK member libraries and their patrons. The prototype will be tested with a pilot project at 3-7 institutions and gradually expanded to all institutions by September 2002. We expect that the level of library involvement will be generally commensurate with the size of library staff. For a list of all OhioLINK libraries, please see Appendix A.

How will the project assist in achieving goals and priorities outlined in LSTA Plan?

This project responds most directly to **Goal Number One:** "To improve access to materials, resources, and information services for Ohio residents, by ensuring that libraries and library systems effectively use technology."

Priority: To enhance staff and user knowledge and understanding of technological and electronic information resources.

The cooperative reference project integrates real-time help at the point of need into library databases; the availability of such help will greatly expand the opportunity for improving user knowledge of information sources. We hope that the access to help will mean more users will be able to use resources effectively and comfortably.

The project also addresses **Goal Number Two:** To develop an integrated information resources environment for access and delivery of library resources to all Ohio residents.

Priority: To integrate and expand existing resource sharing, interlibrary loan and document delivery services.

The grant will allow us to share human resources among member libraries, in addition to the material resources already shared. Based on our contacts with other consortial online reference efforts, we expect five or fewer online librarians to be needed at any given time; therefore, a relatively few number of librarians at a time will be able to serve users at all OhioLINK member institutions, expanding access to help with minimal staff effort on the part of individual libraries.

Explain the connection to existing programs:

OhioLINK is a well-established academic library consortium that has exceptional support from its members. OhioLINK has a well-developed base of remotely accessible databases and electronic journals and supports cooperative efforts in database selection, statewide lending, collection development, serial subscriptions, and staff training. New efforts to support distance learners are being developed. Cooperative reference is a logical step forward in OhioLINK's efforts to increase services and resources to users.

OhioLINK is successful because of the structure of its committees and taskforces, whose members are drawn from member libraries. These committees and taskforces set and implement OhioLINK policies and procedures. See Appendix E for a complete description of OhioLINK committees. Both the User Services Committee and the Library Advisory Council (library directors) have given shared online reference a high priority for the coming year.

Two OhioLINK libraries have already begun providing chat reference services. Librarians at Bowling Green State University (BGSU) use the Library Systems and

Services Inc. (LSSI) software. Librarians at Miami University developed and implemented an open-source chat software. Librarians involved with both of these projects have been and will continue to be involved in the statewide project. They have been particularly instrumental in developing a the list of desired features for the shared reference software, based on the benefits and drawbacks of the different software packages currently in use at their institutions.

TECHNICAL PLAN

There are currently several commercial software packages that enable businesses and other organizations to provide live web-based chat services. During the summer of 2001, we will be evaluating the available software, such as eShare, eGain's Live Web, LSSI's Virtual Reference Desk, and Docutek's Virtual Reference Librarian so that we will be ready to proceed should the grant be funded. Since software changes so quickly the committee does not want to commit to a product too early knowing that newer versions and better options may emerge by the time the grant is funded.

Regardless of which package is chosen, we anticipate the need to modify the available software to more closely match our needs; to this end we intend to license the software from a vendor who will allow us to customize the software to our own specifications. OhioLINK already has significant experience in successfully developing and customizing interfaces and creating database structures. We have also been in contact with managers and programmers from Metropolitan Cooperative Library System (MCLS) in Los Angeles, who have already worked to customize the eGain software.

Therefore, we believe we have a realistic view of the personnel and time requirements for this process.

Show appropriateness of specified components (hardware, software, training methodology, materials, programs) to achieve goals:

Highly developed web-based chat software is available commercially. Librarians at Bowling Green State University are already using LSSI's software and librarians at Miami University are using locally developed chat software. We anticipate that their guidance will steer us toward appropriate software solutions.

The hardware requested for the grant is based on the specifications provided to us by eGain. eGain has conducted performance testing to determine the hardware necessary to support various levels of service (i.e. simultaneous users). The equipment in our budget falls well within those specifications and leaves room for expansion, even doubling of service levels, before we will need to add an additional server. (See Appendix F for eGain's suggested hardware.)

The selected software vendor will provide initial training. Librarians in the OhioLINK community will conduct training locally. OhioLINK has a long-standing and successful tradition of peer instruction among librarians. This will both reduce the costs of widespread training and result in core of expert users in the group of trainers.

MANAGEMENT PLAN

Provide background/qualifications of key personnel implementing the project

Meg Spernoga, Assistant Director of Library Systems for User Services, OhioLINK. Meg has worked in library and information technology for over 25 years. She has experience in many aspects of project management, including planning, implementation, and communication. She has worked at OhioLINK for seven years in the areas of design, training, documentation, and reference services. She has an MLS from the University of Pittsburgh. Meg will serve as the project manager for the OhioLINK Cooperative Interactive Web Reference Project.

Anita Cook, Director of Library Systems, OhioLINK. Anita has a MLS and a MA in MIS and has worked as Director of Library Systems for OhioLINK for nine years. She has an extensive background in project management and system operations. She will oversee the incorporation of the reference service into existing OhioLINK systems.

Contract Programmer. In the event that the chosen software does not already meet the desired functionality, a contract programmer will be hired to developed additional features and functionality as needed. Significant experience in Web design, Java applets, and other web technologies will be required of this person. A working knowledge of Perl and Unix will be needed. Experience in systems integration will be desired. This person should possess strong problem solving abilities as well as excellent analytical skills. The ability to work in a fast-paced environment and meet deadlines will be important.

The following are members of the WebRef subcommittee; all will be involved with the planning and training portions of the project:

Belinda Barr, Head of Information Services, King Library, Miami University. Belinda began her career at Miami fifteen years ago as a Science Librarian and has also held the positions of Authority Control Librarian and Electronic Information Services Librarian responsible for developing the Internet instruction program and coordinating the library web presence. Miami has offered e-mail reference for years and currently offers a pilot chat service using an open source system developed in-house. Belinda's experience coordinating projects such as web site development, attendance at the Virtual Reference Desk conference in October 2000, and research into virtual reference options as chair of the OhioLINK USC WebRef subcommittee have given her insights into the complex issues involved in delivering virtual reference to the OhioLINK community.

Kelly Broughton, Reference Coordinator, Bowling Green State University. Kelly has a MA in Library and Information Science and has been working at BGSU for seven years. She has planned, coordinated and instituted e-mail and chat-based reference services for BGSU and recently received a $10,000 grant to improve web-based reference services.

Nancy Courtney, Head, Information Services Department, Ohio State University Libraries. Nancy has 17 years experience as a reference librarian in Ohio academic libraries, and more than 3 years managing reference services (including electronic) at Ohio State.

Ken Irwin, Reference/Electronic Resources Librarian, Wittenberg University. Ken has an MILS and has been working at Wittenberg University's library for 3 years. He spent 9 months as the Reference Coordinator for the Internet Public Library's volunteer-based online reference service, giving him insight into the training and management issues involved with implementing a cooperative online reference project.

Cynthia Jasper-Parisey, Social Sciences Librarian, Miami University. Cindy has been at Miami for 18 months and is the coordinator of Miami's on-line chat reference project. Previously, she was at Thomas More College Library for 9 years and brings a strong sense of patron service to the table. MSLS from the University of Kentucky.

Sonya Kirkwood, Reference/Reserve Librarian, Sinclair Community College. Sonya has an MLS from Indiana University. She has spent the last 25 years performing reference services, library instruction, backup systems/circulation duties and any other responsibilities as needed in a large urban community college. She assisted in the implementation of an e-mail based reference service and will bring an understanding of community colleges to planning for a state-wide virtual reference service.

Carol A. Singer, Reference Librarian, Bowling Green State University. Carol has an MLS and has been working at BGSU's library for 3 years. She worked in other academic libraries for 12 years and for the federal government for 7 in various reference positions. She has provided virtual reference service for the past year, using HumanClick and LSSI's Virtual Reference Desk. This experience will be valuable in implementing a cooperative online reference project.

Kathleen Webb is Head of Client Services for Roesch Library, University of Dayton. Kathy began her career at UD as the Government Documents Librarian and then moved on to assume the role of Reference Team Leader. She led the library's first web development team in 1995 and continues to serve on the committee. Kathy has been a member of the OhioLINK User Services Committee since 1998 and is the current Chair. She received her M.L.S. from UCLA and her bachelor's degree from Penn State.

Provide a timeline for key events

Pre-Grant Preparation

Spring 2001: Develop and prioritize a list of desired features, and determine relative feasibility. Preliminary list of features can be found in Appendix B.

Summer 2001: Investigate commercial software currently available and evaluate according to desired features. Prepare for incorporation of links to service into OhioLINK databases; prior to implementation of service, links will point users to their home institution's reference department contact information.

Fall (Oct – Dec) 2001:

- Purchase and install hardware and software.
- Hire programmer(s).
- Customize software to meet desired specifications.
- Select institutions to participate in the pilot project.
- Design logo for service.
- Create criteria for functionality and performance testing.
- Create service policies and guidelines to use with the pilot project.

Jan – Feb 2002:

- Conduct functionality and performance testing.
- Train the librarians who will be staffing the pilot project on basics of software.
- Plan the "desk schedule" to cover hours of service for pilot project.
- Design service evaluation survey to be conducted in April and May for pilot project.

Mar- May 2002:

- Conduct pilot project
- Make a presentation at the All Director's meeting to solicit participation in the full implementation.
- Collect surveys from users.

Jun 2002:

- Analyze user surveys.
- Collect feedback from participating librarians using focus groups and written communication.
- Review and revise service policies and guidelines.
- Recruit additional institutions to participate in the full implementation.
- Determine staffing and scheduling requirements for full implementation.

Jul 2002:

- Enhance system as needed.
- Conduct regional training sessions and peer training.

Aug-Sep 2002:

- Implement service across Ohio.
- Prepare promotional materials.

- Distribute promotional materials
- Review and revise user survey if needed.

Oct-Nov 2002:

- Collect and analyze user surveys.

PROJECT SUSTAINABILITY

Recognizing that grant money is intended to initiate projects rather than provide ongoing support, we plan to have a usable and effective product completed within the term of the grant. Ongoing support should be of a sufficiently minimal level to be performed by OhioLINK staff.

Current staff at consortium libraries will perform the library service portion of the ongoing project. Once the term of the grant is completed, this arrangement will carry on into the future.

The ongoing software license costs will be minimal: using eGain and LSSI as examples, the ongoing costs for those products would be no more than $12,000/year. The OhioLINK operating budget can absorb these costs.

EVALUATION

Measurable objective: Implement web-based chat reference system by February 2002.

Measure of success: Identify, purchase, and install commercial chat software and appropriate hardware. Customize the software based on desired specifications. Review minimum qualifications for functionality and conduct tests to measure performance of the

system. Incorporate links into appropriate OhioLINK and local web pages. Begin offering service to patrons.

Measurable objective: Answer questions through the chat service from at least 45 OhioLINK member institutions within the first year of service.

Measure of success: The chat software will track users by institution; we expect to find that users from at least 45 OhioLINK institutions will use the service. Logs will be monitored, and promotion efforts will be reviewed for institutions with lower than expected rates of participation. (Some institutions currently have usage rates as low as 3 database searches per day, perhaps indicating low need for the databases at those institutions; such factors will be considered.)

Measurable objective: Train 25 reference librarians in use of chat software and quality online reference techniques, and have them peer-instruct staff at their home and neighboring institutions.

Measure of success: Regional training sessions will be held at OhioLINK institutions around the state. Plans are to train all of the members of the User Services Committee (USC) as well as the members of the USC subcommittees at these regional sessions. The librarians attending training will be expected to hold training sessions for colleagues at their home and neighboring institutions. Statistics and evaluations will be kept from regional and local training sessions.

Measurable objective: Answer at least 80% of questions received in a manner deemed satisfactory by surveyed patrons.

Measure of success: Users will be surveyed in April and May 2002 to determine their satisfaction with the service and solicit any suggests they may have. Results of the survey will be analyzed. This exit survey will be repeated in October and November 2002. We anticipate that by the second survey period 80% of users will be satisfied with the help they receive through this service.

BUDGET AND JUSTIFICATIONS

	Federal	Local	Total
I. Supplies:			
Training materials	**$0**	**$23.44**	**$23.44**
Description: paper and folders for training documents for 200 librarians. 2 reams of paper at $3.72/ream and 200 folders at $.08/unit.			
II. Contractual:			
Logo Design	**$0**	**$1,200.00**	**$1,200.00**
Description: OhioLINK will contract with a graphic designer for an attractive and identifiable logo for the service. The logo will be used in promotional materials and in the link to the service from OhioLINK databases.			
Advertising: 1 month @ $100/month x 17 schools	**$0**	**$1,700.00**	**$1,700.00**
Description: Up to $100 in advertising in each of the online editions of 17 large school newspapers. It is hoped that the online medium will effectively target users likely to be interested in online reference services.			

III. Other:

Commercially-available software for web-based chat service. See under Technical Plan.*	**$63,572.58**	**$12,267.42**	**$75,000.00**
Description: Various software packages will be evaluated during the Summer 2001, and chosen in the Fall if the grant is awarded. Budget line is based on estimates from several vendors, and includes license, training, and installation costs.			
42,000 Promotional bookmarks @ $0.02/unit	**$0**	**$840.00**	**$840.00**
Description: OhioLINK has successfully used bookmarks to promote services in the past. The bookmarks will be distributed to libraries to pass out at circulation desks, in instructional sessions, etc.			

IV. Equipment:

Sun Enterprise 450	**$0**	**$6,000.00**	**$6,000.00**
Two 480MHz UltraSPARC-II processors, 512K of memory, minimum of 16GB of disk, and 8MB			

* Depending on the software selected, we may need to hire a contract programmer to modify the product before implementation. If this is the case we expect to fund the programmer through a budget transfer from the software portion of the budget, as the more "finished" software costs more than the software we would expect to have serious need for modification.

of external cache.

Description: This configuration should have more than enough capacity to meet initial demands and can be expanded easily to meet growing needs. It is compatible with known commercial chat software and fits well into the OhioLINK computing environment. Since hardware technology changes rapidly, it is possible that a change in configuration will be needed because of changing market conditions.

	Federal	**Local**	**Total**
I. Supplies	$0	$23.44	$23.44
II. Contractual	$0	$2,900.00	$2,900.00
III. Other	$63,572.58	$12,267.42	$75,840.00
IV. Equipment	$0	$6,000.00	$6,000.00
Total	**$63,572.58**	**$21190.86**	**$ 84,763.44**

Appendix A: OhioLINK Member Institutions

Antioch College
Ashland University
Athenaeum of Ohio
Baldwin-Wallace College
Belmont Technical College
Bluffton College
Bowling Green State University
Capital University
Case Western Reserve University
Cedarville University
Central Ohio Technical College (with OSU-Newark)
Central State University
Cincinnati Bible College and Seminary
Cincinnati State Technical & Community College
Clark State Community College
Cleveland State University
College of Mount St. Joseph
College of Wooster
Columbus College of Art and Design
Columbus State Community College
Cuyahoga Community College
Defiance College
Denison University
Edison Community College
Franciscan University of Steubenville
Heidelberg College
Hiram College
Hocking College
Jefferson Community College
John Carroll University
Kent State University
Kenyon College
Lakeland Community College
Lima Technical College (with OSU-Lima)
Lorain County Community College
Malone College
Marietta College
Marion Technical College (with OSU-Marion)
Medical College of Ohio
Miami University
Mount Carmel College of Nursing
Mount Union College
Mount Vernon Nazarene College
Muskingum Area Technical College (with OU-Zanesville)

Muskingum College
North Central Technical College (with OSU-Mansfield)
Northeastern Ohio Universities College of Medicine
Northwest State Community College
Notre Dame College of Ohio
Oberlin College
Ohio Dominican College
Ohio Northern University
Ohio State University
Ohio University
Ohio Wesleyan University
Otterbein College
Owens Community College
Rio Grande Community College
Shawnee State University
Sinclair Community College
Southern State Community College
Stark State College of Technology (with KSU-Stark)
State Library of Ohio
Terra Community College
Tiffin University
University of Akron
University of Cincinnati
University of Dayton
University of Findlay
University of Toledo
Urbana University
Ursuline College
Washington State Community College
Wilberforce University
Wilmington College
Wittenberg University
Wright State University
Xavier University
Youngstown State University

Appendix B: Preliminary list of desired features for chat reference software

- Unix operating system
- Works well on Mac and PC for operator and client
- Customizable
- Supports the same minimum browser level that OhioLINK Dataware databases require
- No plug-in or downloads required by client
- Possible to authenticate up-front
- Possible for the operator see the OhioLINK institution affiliation up-front
- Client IP displays to operator and resolves to domain name
- Operator sees the URL of the page from which the client connects
- Statistics module
- Software uses at least one frame for chat and one to view web pages (multiple frames rather than multiple windows)
- When chat is not available, there is an option to display a customizable page that includes local and OhioLINK service options (e.g., e-mail, telephone numbers)
- Unlimited simultaneous operators
- Web page push with the click of a link or image
- Escort of client through web pages
- Co-browsing (operator and client share an application)
- Multiple bookmark files created by and for the use of operators
- Multiple scripts written by operators that can be pushed to the client
- Web forms that can be created by operators
- Audio notification of client call
- Access to all OhioLINK subscription databases
- Transfer of a question from one operator to another
- Operator logout option
- Queuing:
    - multiple queues (one per OhioLINK member institution)
    - automatic "on hold" message displays when a client goes into a queue; the hold message includes other contact options available from the client's home institution (email, telephone number(s))
- Upon client logout:
    - operator receives notification
    - client call is removed from the queue
    - client retains a list of URLs used
    - an optional service survey is presented
- Transcripts:
    - anonymity of client (client identifying information (e-mail, name) stripped from transcripts)
    - client has the option to receive an e-mail transcript of the session when they connect
    - option to e-mail a transcript to the home institution of the client

- option to see transcripts of all librarians from a particular institution
- ability to print a transcript

- Voice over IP (audio rather than text chat option)– at least on a development list

Appendix C: OhioLINK Core Databases:

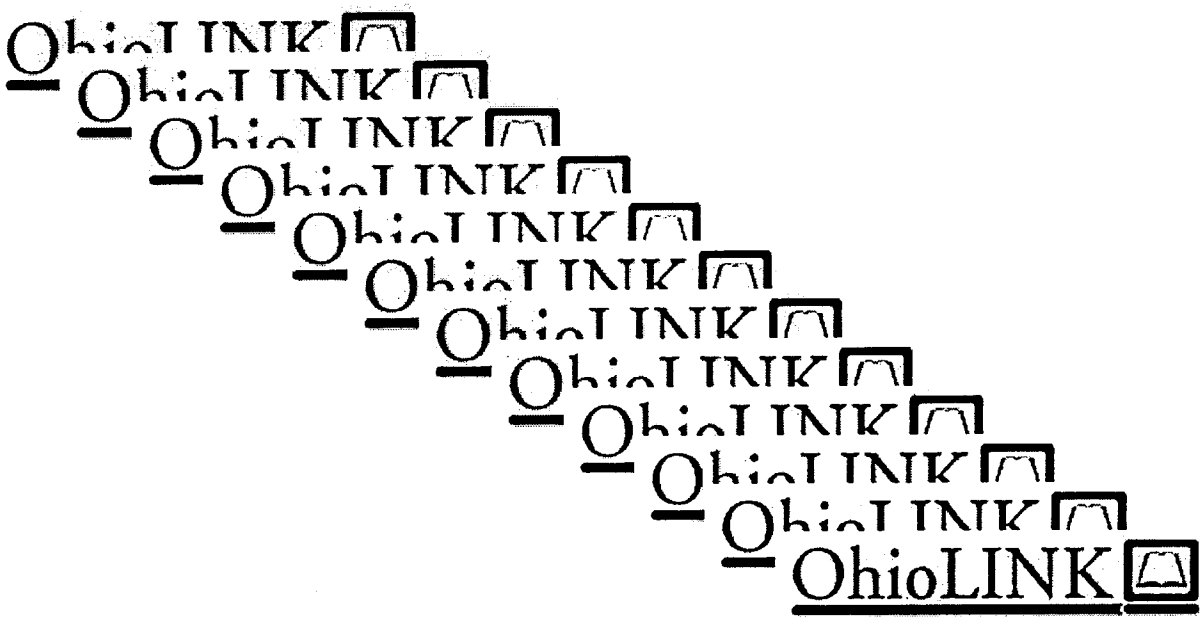
These databases available to all OhioLINK users (core of shared databases likely to be used in online inter-campus reference services.

ABI/Inform
ABC POL SCI
AccessScience
African-American Poetry
AIDSLine
America: History and Life
American Heritage Dictionary
American Poetry
Annual Bibliography English Language & Literature
Anthropological Literature
AP Photo Archive
Applied Science & Technology Abstracts
ArchivesUSA
Art Abstracts
Art and Architecture Images (DMC)
ARTFL (French literature)
Associations Unlimited
ATLA Religion Database
Avery Index to Architecture
The Bible in English
Bibliography of American Literature
Bibliography of the History of Art
BioethicsLine
Biography Index
Biological & Agricultural Index
Biological Abstracts
Book Review Digest
Britannica.com (free)
Business & Industry
CancerLit
Chicano Database
CINAHL
Columbia Encyclopedia
Compendex
Contemporary Authors
Contemporary Women's Issues
Cumulative Book Index
Digital Media Center (DMC)
Dissertation Abstracts
Editions and Adaptations of Shakespeare
Education Abstracts
Eighteenth Century Fiction
English Poetry
English Prose Drama
English Short Title Catalogue
English Verse Drama
ERIC
Essay & General Literature Index
FRANCIS
GeoRef
Global Access (Disclosure)
GPO Monthly Catalog
Handbook of Latin American Studies
Hand Press Book Database
HarpWeek Civil War and Reconstruction
Hispanic American Periodicals Index
Historical Abstracts
History of Science, Technology & Medicine
Humanities Abstracts
Index to Foreign Legal Periodicals
Index to Hispanic Legislation
Index to Legal Periodicals
Index to 19th-century American Art Periodicals
Inside Information Plus
INSPEC
LANDSAT 7 Satellite Images
Library Literature
MathSciNet
A Matter of Fact
MEDLINE
Merriam Webster Collegiate Dictionary (free)
MLA International Bibliography
NetLibrary
Newspaper Abstracts
OCLC ArticleFirst
OCLC ContentsFirst
OCLC NetFirst
OCLC Union Lists of Periodicals

Ohio Capitol Connection
Oxford English Dictionary
PAIS International
PapersFirst
Periodical Abstracts
ProceedingsFirst
PsycINFO
RILM Abstracts of Music Literature
RLG Union Catalog
Russian Academy of Sciences
Bibliographies
Sanborn Maps
SCIPIO: Art and Rare Book Sales
Catalogs
SIRS Researcher
Sociological Abstracts
Thesaurus of English Language
World Almanac
WorldCat

Appendix D:

OhioLINK Strategic Plan



Connecting People, Libraries, & Information for Ohio's Future
-2000 and beyond; Continuing the Task

The OhioLINK Program Vision, Priorities, and Strategic Activities

8/01/00

A. Introduction and History

The Ohio higher education community conceived a bold vision of a world-class cooperative library and information system. Moreover, the vision has become, arguably, the premier system of its kind. The vision, first formalized in 1989 continues to unfold. In light of our progress-to-date, the addition of so many members, and the information and technology changes in the world around us, we need to critique and revise the vision if we are to continue to realize the goals of the OhioLINK program. We must then address the costs and benefits ofeach aspect of our strategic vision to determine our priorities for 2000 and beyond.

1994 represented the first effort to translate the 1989 vision into a complete operating plan. We set forth for the first time, in detail, what we intended to do, consistent with the vision.

In 1996 we took stock. We measured to see if we were on track with the basic objectives and benefits expected of the program. We had in place sufficient experience to determine if the expectations of the OhioLINK program were valid, justifying continued support and development.

Since 1996 the program has expanded to introduce and implement a robust range of services. At this stage in 2000, we have advanced far enough in our evolution to set forth an updated view of what our future should hold. The issues are too complex for this single document to define precisely what we will do. We can, however, articulate those areas that are now of most importance to address and renew our commitment to undertake the tasks necessary to continue putting the vision into practice.

The community has changed dramatically since the original Ohio Board of Regents Library Study Committee convened in 1986. Only one member of that committee is still active in OhioLINK affairs. We have a new chancellor and regents from those who originally approved the OhioLINK program's funding. No OhioLINK board members from the early 1990's are still active in the program. Of the original 18 library directors of the Library Advisory Council, only 6 remain. In addition, we have added the full complement of 17 two-year colleges and 38 independent colleges.

The current administrators and directors of all these schools, plus those of the numerous law, medical, and branch institutions constitute the leadership that wenow depend on. A major goal of this current process is to increase the personal commitment of the current OhioLINK community leadership in the program's future by involving them in the establishment of our priorities and the examination of how these should be put into practice.

B. The Vision

The heart of the OhioLINK program's vision was set forth on p. 2 of the December 1989 "OLIS Connecting People, Libraries, & Information for Ohio's Future" (see attached). Validation of this vision comes from the vision statements of similar programs that have followed in other states and which essentially mirror the intent of the OhioLINK program. A sampling of these programs' stated objectives is attached.

In the end, we, and the other programs, say we will advance the scholarship in our institutions through:

- better access to and coordination in purchasing of our shared collections;
- expanded access to electronic information resources;
- improved access to information infrastructure;
- the promotion of improved scholarly communications;
- improved and advantageous economies in the purchase and use of electronic information resources.

There is a unique challenge in our 1989 vision that no other similar program appears willing to state explicitly. It calls for the OhioLINK program to "be the most powerful statewide library and information system in the nation." We may, arguably, be just that at this moment, but the investment in similar programs across the nation has increased dramatically in the 1990's with programs in California and Georgia among the leaders in funding and services. The standard continues to rise with advances in enabling technology and with the increasing needs and expectations of the higher education community. Are we resolved to take the risks necessary for our evolution to achieve our original goal as the premier statewide library and information system?

C. The Process of Vision Renewal and Examination

The library directors began the process of examining our commitment to the OhioLINK program's evolution at their March 17, 2000 annual meeting. This was the first time the current, full community of library directors undertook to share their perspectives about OhioLINK's future.

Each of the groups of 20-25 library directors reviewed our earlier strategic directions and then created a list of the top priorities for the future. Each also created a list of factors that will play heavily on our success or failure. The remainder of this document is a synthesis of their work.

The results of their deliberations do not present neatly packaged priorities, or actions. Rather, they focus our attention on yet-to-be-met goals that must be further examined and analyzed before action can be taken. The results launch a concerted process to address each proposed priority to determine if, how, and when we should address each one. It and the subsequent steps we take will provide focus for the hard decisions and choices that must be made with finite resources.

D. Critical Factors

The library directors identified a litany of factors that can accelerate, impede, and influence our progress and priorities. The list illustrates the complexity of our business environment.

1. Funding: This is an obvious constraint for all organizations. In our case it may be more so in that we have yet to determine what constitutes a mature, economically steady-state program. Given the continuing rapid evolution in information technology such a definition is problematic. New services that enable expanded information use are developing continuously. Our experience is that many technologies and electronic services that we will use in the next two years are not currently on the market. This constantly evolving picture, coupled with funding levels only determined from biennium to biennium is an inhibiting factor in defining and growing the program to state of maturation.

2. Higher Education/Legislative Support: Turnover at all levels of higher education administrations and state government affects the support for the OhioLINK program. The program has had exceptional support from the Ohio Board of Regents and higher educational institutions that has allowed the program to grow consistently. Our continued evolution will require increased coordination of library budgets and operations, requiring a greater appreciation of the benefits to all, and some limitations to local autonomy.

The success of the OhioLINK program is increasingly dependent on the stability and reasonable growth of local library budgets. As we extend our activities in cooperative collection development, huge advantages are gained for all but only if each library can contribute its share.

The program has grown with no clear-cut legislation or executive branch champions, outside of the OBR. Can this continue as the budget grows in size? Or will there be an arbitrary budgeting topping-off due to lack of understanding of the continued benefits of expansion? Can we get longer-term assurance of increased funding levels to improve planning? When the economy weakens what will happen to our funding?

3. Pace and Impact of Technological Change and the Commercial Marketplace: That the World Wide Web and Internet have become dominant forces in all facets of our lives hardly needs mentioning. The lure of commercial success and the availability of technology have dramatically increased investment levels in consumer information products and services. Already, firms that traditionally reach information users through libraries are branching out to direct consumer delivery. The standards for information delivery are now being driven outside of the education sector. In such a relentlessly progressive environment can our technology and delivery platforms keep pace? Will the rapidly developing dynamics of commercial information services work against us? In the face of these increased pressures maintaining the library presence and relevance to our constituency as we invest in improved services is a critical challenge.

4. Non-traditional Students/Distance Learning: Providing complete library and information services to remote students or students not attending in a traditional, full-time manner is a challenging proposition. Fortunately, the OhioLINK program is well positioned to support the growth of this educational technique. Nonetheless, growth in distance learning will challenge our ability to provide instructional and research support. To the extent that these students do not reside in Ohio, questions of state support for library and information services may be raised.

5. Faculty Attitudes: Libraries have always had difficulty meeting the comprehensive needs of faculty. We now have the collective means to do so much more effectively but it requires new approaches to local collections and purchasing autonomy, print and electronic delivery, owned and shared resources. Faculty attitudes towards these changes will significantly affect the degree to which libraries feel empowered in making

changes that will lead to improved services for all. By extension, their willingness to integrate, information resources into the curriculum will be a measure of the full benefits of what we do.

6. Accreditation and Library Measures of Success: Our traditional view of what constitutes a suitable library collection is called into question with desktop delivery of networked information. The physical measures of success such size of collection, number of circulations, and in-library student traffic have far less meaning when information is delivered to the user rather than the other way around. The agencies and measures that validate libraries will either recognize the new dynamics of information access and give credit or will hinder our progress.

7. Ohio Citizens/Ohio Business Support: If there is a strong undercurrent of support from Ohio citizens at-large and Ohio businesses' State government will then be empowered to support higher education and by extension, libraries with the OhioLINK program. Fostering this support can only help. If this support is not present it will contribute to low levels of government support and funding.

8. State government's focus on K-12 and visibility of K-12 and public libraries: The pressures to improve schools and the political visibility on K-12 education are immense. This improvement includes a massive investment in technical infrastructure but, as yet, no significant investment in school library resources. Should there be a realization that school libraries can and should be improved, the focus on library funding across the state will revolve around how schools might benefit. How can OPLIN and OhioLINK be leveraged to the advantage of school libraries.

Ohio public libraries are among the best funded in the nation and because of this added funding for statewide programs may be looked at with some skepticism in the legislature. Understandably, these libraries are reticent to use local funds for statewide purposes. But, the same favorable economies of central funding that hold true for our program hold true for public and school libraries. Efforts to create a common set of electronic statewide resources will be affected by the complex set of issues surrounding both school and public libraries.

9. Librarian Attitudes: Influenced by all the other factors, the people most responsible for the success and evolution of the OhioLINK program are the academic librarians from around the state. They must sense the support of those they report to and those they serve. Such support will empower them to find common solutions among a diverse set of institutions. It will enable them to develop new levels of cooperation, even if these challenge traditional practices and perceptions of local autonomy.

E. Priorities to Address

As evident in the deliberations of the library directors priorities are not easily agreed to or equal. Up to this point our priorities have revolved around the elimination of information deprivation and rationing. While creating effective, user-friendly systems, our primary focus has been the expansion of information access with greater cost efficiency. The need and opportunity to do this will continue. Given our progress to-date in content expansion and the dramatic changes in the use of the world-wide web as a general information source we must increase our relative focus on making our systems as useful as possible and on ensuring the maximum use of these beneficial resources to students and faculty. We must meet the competitive challenge of alternative, commercial information sources that are duplicative, less effective, and may require unnecessary direct user expenditures.

A second area of increased emphasis that emerged from the library directors' session was cooperative collection development. Across all the materials we purchase, there is statewide advantage in cooperative collection, storage, and access. To realize this advantage fully requires a fundamental examination of how individual library budgets and operations interact and may require changes threatening to libraries, institutions, and faculty.

A third area of emphasis is further integration of library resources with instruction and research as they evolve. This requires us not only to consider the day-to-day activities of students and faculty but also the fundamental changes being experienced in course creation and delivery and in scholarly publishing.

To a certain extent all of our priorities and activities are intertwined to address these major areas of emphasis. It is difficult to isolate the most important things we can do. Nonetheless, we list 7 priority areas and the nature of potential activities in each. While listed in general order of importance, this does not mean we will not address all areas but will be cognizant of the relative priorities in setting our mix of activities.

1. Continue to Evolve and Improve Our Electronic Information Delivery Systems to Connect Users to Needed Information Effectively – Ours and that found on the Internet: Confusion exists in knowing where to look for information, how to search for information, and in how to evaluate information sources. The results are lost opportunities in the effective, enriching use of information for educational and research pursuits. As we become information rich and face the increasing likelihood that users fail to find the most relevant sources, we must strive to train our users and create our systems to connect successfully.

Potential Activities:

a. Develop intelligent search mechanisms to aid in navigating through both licensed and freely available information. These include multi-database searching, personalization options, and next generation search engines.
b. Improvements to the III catalogs should focus on improved user services and integration with other resources.
c. Implement and evolve coordinated 24X7 online reference desk services.

2, Continue to Expand Content Availability Statewide: There remain many text-based resources that will be of significant value to the students and faculty across the state that we have not licensed. We have recently only begun to broaden access to digital images, with video and audio files still on the horizon. We have significant electronic journal access but this still represents a fraction of what we hold in print and of what students and faculty need. With each expansion in information access the needs of our patrons rise. We still see significant electronic content that will contribute strongly to the quality of our instruction and research if made more broadly accessible.

Potential Activities:

a. Continued expansion of our core reference resources to address targeted disciplines still lacking in our array of databases.

b. Continued expansion of the Electronic Journal Center and other sources to expand full text journal availability.
c. Move beyond trial phase and create broad core of e-book access
d. Expand non-book, non-serial content to fully utilize capabilities in the Digitial Media Center

3. Maximize the Impact of Cooperation on our Purchasing Power to expand Information Access: High quality information resources for broad statewide use are not freely available on the Internet. We have proven beyond a shadow of a doubt that one dollar invested in a cooperative effort returns the value of many dollars to each campus. Individual action does not have the same leveraging affect. There remain significant untapped economic advantages in the collective purchase of print and electronic resources that meet the needs of our community. To realize these economic advantages we may need to look beyond just pooled purchasing models to fundamental changes in organizational, operational, and budgetary structures.

Potential Activities:
a. Conduct statewide discipline-based needs assessment and create cooperative acquisition programs to address.
b. Continue expansion of electronic journal licenses evolving towards more sustainable economic models.
c. Aggressively pursue the cooperative purchase of electronic books to leverage the buying power of our current book budgets.
d. Examine current collection practices of non-book/non-serial material and determine if cooperative, distributed and centralized collection, storage, and fulfillment can deliver these materials more broadly and quickly.
e. Use our collective buying power to support the advancement of alternative publishing models, e.g. SPARC, that will help control or lower future costs.

4. Promote/Market the Benefits of Library Resources Versus dot.com Internet Sources: Even if we build better electronic delivery systems, libraries are in competition with all other information resources on the Internet. We need to aggressively promote our advantages to our clientele in the face of the "surf the web" mentality. Some are free, some not; some are of dubious quality, others not. Some seek to super-cede library resources by acting as a portal to instructional support material. These are often less comprehensive than library resources and may involve end-user costs or advertising. Some imbed a quasi, library-like module within a broader campus administrative and information system that may make use of library services more difficult. Our libraries have a long history of addressing the needs of our instruction and research programs and through library and OhioLINK funded resources have a core of the best information resources needed.

Potential Activities:
a. Develop common set of promotion programs and materials to promote "try the library URL for information first"
b. Continue to calculate and fully promote the cost advantages of the OhioLINK program to each institution and the state as a whole.
c. Expand and coordinate staff and user training programs

5. Expand Resource Sharing of the Collections: Ninety-eight percent of all patron-initiated circulation requests are for books. Only in 1999 did we begin sharing audio and video-cassettes and microforms. This expanded sharing was not done uniformly across libraries given the difference in local collection practices and local user needs. We have not offered patron article requesting for a variety of operational and policy reasons. Fortunately, and as a strategic direction, we have had extraordinary success in journal access via electronic licenses.

There are significant economic, operational, technical, and legal hurdles to expanded resource sharing of more material formats held in our libraries. To do so may require

fundamental re-thinking about how and when we collect certain types of materials. For example, might cost effective storage of, and access to, historical print journals or audio and video collections require central instead of multiple library-based storage? We need to determine how far the community is willing to evolve to achieve new resource sharing levels.

Potential Activities:

a. Develop improved capabilities to share journal articles not accessible through electronic licenses. With respect to costs and speed of service, consider both decentralized and central depository based storage and fulfillment. Include the means, such as copyright tracking, to make the process as cost-effective as possible.
b. Coordinate statewide and pursue digitizing projects of library-held materials, aggressively. As a group, seek outside funding to accelerate the digitizing process. One focus should be Ohio related materials (e.g. Ohio historical newspapers, Ohio history).

6. Maximize Our Contribution to the State through partnerships with Ohio Public and School Libraries, Public Agencies, and Business: What we are interested in, others may also be interested in. The systems we use to deliver services may also be used by others. The expansion in information access made possible via our economic leveraging may also be extended to others. We can meet our own needs and provide broader benefits to the state.

Potential Activities:

a. Continue partnership with OPLIN and INFOhio, seeking the funding to develop the information resources for these groups and to support mutually needed information resources. Expand use of the OhioLINK central site to these groups where we can leverage the technological investment.
b. Support Ohio Bicentennial by hosting the Ohio Memory project.
c. Develop programs to provide expanded access to research materials to Ohio business enterprises.

7. Provide the necessary tools to enhance our statewide capability to participate in the evolution of electronic publishing. From a technical perspective many of these activities would be extensions or modifications on capabilities we have or will develop for our own purposes. The complications arise if we begin acting as an electronic publisher (e.g. Highwire Press) for our institutions. The administrative tasks of working with institutions and subscribers may be more complex and costly than desired. There is a fundamental question as to whether there is a significant role here for OhioLINK and Ohio institutions as geographic-based rather than discipline-based programs. We should be opportunistic but be careful not to take on a task too costly and with marginal advantages if not widely used.

Potential Activities:

a. Support expanded electronic access of journals published from Ohio Institutions through use of a central shared facility.
b. Support access to Ohio scholarship with pre-print server(s) by discipline (e.g. computer science research papers).
c. Support access to Ohio scholarship by creating a shared electronic publishing system for university presses.

F. Implementation

By creating a list of priorities and potential activities we commit to the task of defining the specific solutions we will pursue. Through our committees, task forces, and central staff we will examine, define, analyze and recommend how each priority can be achieved. We will call upon a wide range of the OhioLINK community to participate in these activities. As these activities unfold we will consider these in the context of our ongoing deliberations and plans for our biennium budgets.

The challenge is to actively engage the OhioLINK community in pursuing these priorities. In some cases the approval of these priorities provides a sense of empowerment. In other cases, the approval provides a mandate or requirement. Either way, it activates a necessary process to keep the OhioLINK program advancing.

Implementation will be an ongoing process. An initial set of key activities and expectations is attached as the next segment of this document. This set will be put in motion and evolve, subject to regular review at a composite level as well as the specific activity level. It does not represent the full range of activities we will be engaged in. It represent those that have strategic importance in addressing the priorities we have identified.

1	PRIORITY AREA Improve electronic delivery systems			
	Activity and expected Outcome	Output	Who	When due
a	Conclude and evaluate Web Task Force Survey - create overview plan describing how the look and functionality of OL serives should evolve. This includes how the community should best support these services, such as 24x7 reference services. This plan will undergo periodic review and evolution.	Initial report on survey and recommendations including initial phases	USC/STAFF	10/00 first version with periodic updates
b	Institute multi-database searching capability. Define as possible any staging of capabilities that will be built. Determine technical approach that will provide a suitable pathway for enhancements and support	Recommendation with definition of capabiliites to be provided and technical tools needed	STAFF with USC review and input	9/00 Rec'd 3/01 first implementation
c	Develop a process to develop a search engine(s) strategy that will provide that all central delivered services maintain a competitive set of search and access capabilities	white paper on state-of-the art on Internet search engines and recommedmdation for OL's strategy	STAFF with USC and TAC review and input	1/01
d	Within the overall search engine(s) strategy improve the delivery of the full text resources currently being delivered under open text	Replacement of Open Text with improved interface	STAFF with USC review and input	9/01 initial implementation
e	Define and implement authentication strategy that will enable all our services to to be delivered regardless of patron location and that will be synergistic with other authentication needs in our institutions.	Rec'd on strategy and time table for authentication systems evolution	STAFF in concert with Joint Technical Planning Committee and agreement of the Ohio community	'3/01

2	PRIORITY AREA Content			
	Activity and expected Outcome	Output	Who	When due
a	Expand non-book, non-serial electronic information resources. Monitor emerging commerical sources of electronic video and audio materials. Survey Ohio institutionally held materials that could be converted and identify highest priorities	An evolving, better formed process of regular evaluation and expansion. Initial plan on how to begin programmatic expansion.	CIRM/ STAFF	12/00 Internal audit and priorities
b	Expand table of contents, book reviews or other enriched resources for our catalog records to aid selection by our users. . Survey available and emerging commerical sources to identify best candidates.	Recommend which products would be the best to negotiate with.	CIRM/DMS	9/00
c	Continue EJC expansion	Updated list of target publishers	CIRM	9/00 new target list
d	Continue Powerpage expansion of titles if possible at economically attractive rates If not possible, consider suitablity of RFP in terms of price, title coverage and operational compatiblity of Ebsco and Gale.	Conclude negotiations with UMI on possible title expansion. Conduct preliminary analysis of RFP	STAFF with input from CIRM/USC	Decide if RFP is needed by early 2001 for mid 2002 changover
e	Expand A&I and other reference related electronic resources to fill important disciplinary gaps. Subject to funding levels.	Preliminary list of next candidates for statewide licensing for F02/F03 budget	CIRM	11/00
f	Coordinate and expand Grant opportunities for digitizing projects. Consider new staff member to coordinate on a full time basis. Coordinate fund seeking with survey and priorities of instituionally held material. - see activity A1	Summary and continuing updates on funding sources. Joint prep of requests	Form speical TF from interested libs to coordinate. Propose staff	Begin coordinated, expanded grant submissions no

38

3	PRIORITY AREA Maximize Purchasing Power			
	Activity and expected Outcome	**Output**	**Who**	**When due**
a	Consider how we can maximixe access to netLibrary's and other e-book sources growing collections beyond current trial steps. Develop user-demand driven models with cost-sharing among institutitions to supplement printed book purchases with a more-leveraged expenditure in e-books.	Rec'd to LAC on structure of agreement with netLibrary and funding approach	Current LAC Costshare TF in place with CIRM	Rec'd- 9/00 LAC Ongoing with new vendors
b	Enhance YBP system and fully integrate use into cooperative collection practices	Confirmed development plan with YBP. Clear internal policies and procedures to take advantage of YBP system	CIRM/CBTF	Ongoing - dependent on YBP
c	Conduct library summit to generate consensus on underlying principles, pros, and cons to expanded cooperative collection and operations. Generate a more widely held understanding of what we can/hope to accomplish as a basis for setting future activities.	Proposed agenda and timing for a general meeting	CIRM/CBTF	ASAP with intent to hold meeting in late fall '00
d	Implement trial discipline-specific cooperative collection initiatives that can demonstrate tangible, measurable changes and improvements in available resources to users.	List of disciplines participating - In selected disciplines a description of what was done to improve purchasing and the impact.	CIRM/selected subject selector groups	List by 10/00 - Initial reports by 6/01
e	Evaluate EJC usage data to define our approach to "3rd generation" licenses. 3rd generation licenses are assumed to include a willingness to reduce cost by eliminating access to low used titles.	Analysis of low use titles for major publishers and rec'ds for content and economic trade-offs	New LAC TF to include CIRM reps	Early 2001
f	Create white paper describing current collection practices across our institutions and the implications on our efforts to improve statewide access through cooperative efforts. Focus is on the universilties and on achieving a consistent level of materials funding that provides for suport of effective group-based purchases. Investigation should be made into 4 and 2 year colleges funding levels to determine the needed levels in these groups.	White paper for distribution and use with higher ed adminstrators	New LAC TF to include CIRM reps	3/01

4	PRIORITY AREA Sharing Resources			
	Activity and expected Outcome	**Output**	**Who**	**When due**
a	Examine PAR strategy. Review alternatives, obstacles, and policies. Consider full range of PAR implications from requesting to physical or electronic delivery. Clarify our intended stragy of PAR. Recommendation on evolutionary steps to take. Include consideration of strategic central-decentralized fulfillment alternatives	Rec'd on short term steps of PAR system developments. Rec'd on long term strategy to best execute PAR	LAC Article TF currently in place with ICS reps	Ist report in Fall 2000; likely continuing into 2001

39

5	PRIORITY AREA Promote library resources			
	Activity and expected Outcome	Output	Who	When due
a	Implement new statewide staff training program and evolve to maximize the benrfit.	Statewide trainin gprogram and schedule of regional training, updated regulkary to maintain regular schedule	USC/STAFF	Initial schedule issued, update as needed.
b	Improve end user training. Develop ways to share and implement best practices. Find ways to make as efficient and effective as possible for all schools. Use Ohio Immersion program as a catalyst to incorporate improved ans best practices widely in the state.	Varous,developing, and uncertain. Clearinghouses, shared materials and program deveioipment, etc.	USC/STAFF	Ongoin gas developed
c	Develop end-user library/OhioLINK promotional plan for ongoing implementation. Consider need for data collection on user attitudes and knowledge, Consider use of outside marketing expertise.	Rec'd annual promotional plan and process for revising and continuing.	New LAC TF to include USC reps	Spring 2001 for first full plan. Prior to that possibly partial steps and actions.

6	PRIORITY AREA Partnerships			
	Activity and expected Outcome	Output	Who	When due
a	Support and seek Libraries Connect funding in F02/F03	Joint Proposal with OPLIN, INFOhio, and SLO on F02/F03 recommendation	STAFF	7/00
b	Facilitate Ohio Bi-Centenniel Memory project through use of our central site capabilities.	Implementation plan outlining our activities to support the content plans of the OHS.	STAFF	Dependent on OHS timetable
c	Develop Ohio Online Atlas concept. Concept starts with Landsat 7 data and expands as other data can be layered into a comprehensive system of GIS-based data about Ohio. Requires continuous efforts to build a community in education and government to help build the site.	Initial- bring up Landsat7 images. Ongoing- build relationships with OGRIP, OhioLEARN and others to	STAFF	Initial- 7/00, ongoing
d	Develop program for access ot OL resources for small/start-up commercial enterprises. Focus is on research materials, like EJC that may help stimulate high-tech start-ups and small businesses. Requires alliance with State Dept. of Development, maybe other agencies. Requires agreements with database vendors and publishers.	Implementation plan on how program would work and be offered.	STAFF	Contact DOD-fall 2000. Tsrget progrsm start-mid 2001

7	PRIORITY AREA Statewide e-publishing			
	Activity and expected Outcome	Output	Who	When due
a	Develop ETD site. Enable public access. Include in national, federated searching system. Enable to accept multiple files and formats.	Enhanced versionof ETD site	STAFF	Public use- 8/00 nat'l site- 10/00 mult files 01/01
b	Develop ETD site- broaden use to all qualifiyng schools.	Standard materials to explain how each school participate	STAFF	01/01
c	Develop Statewide Computer Research Papers site for participation in national network.	Modify ETD site and create parallel site.	STAFF	4/01

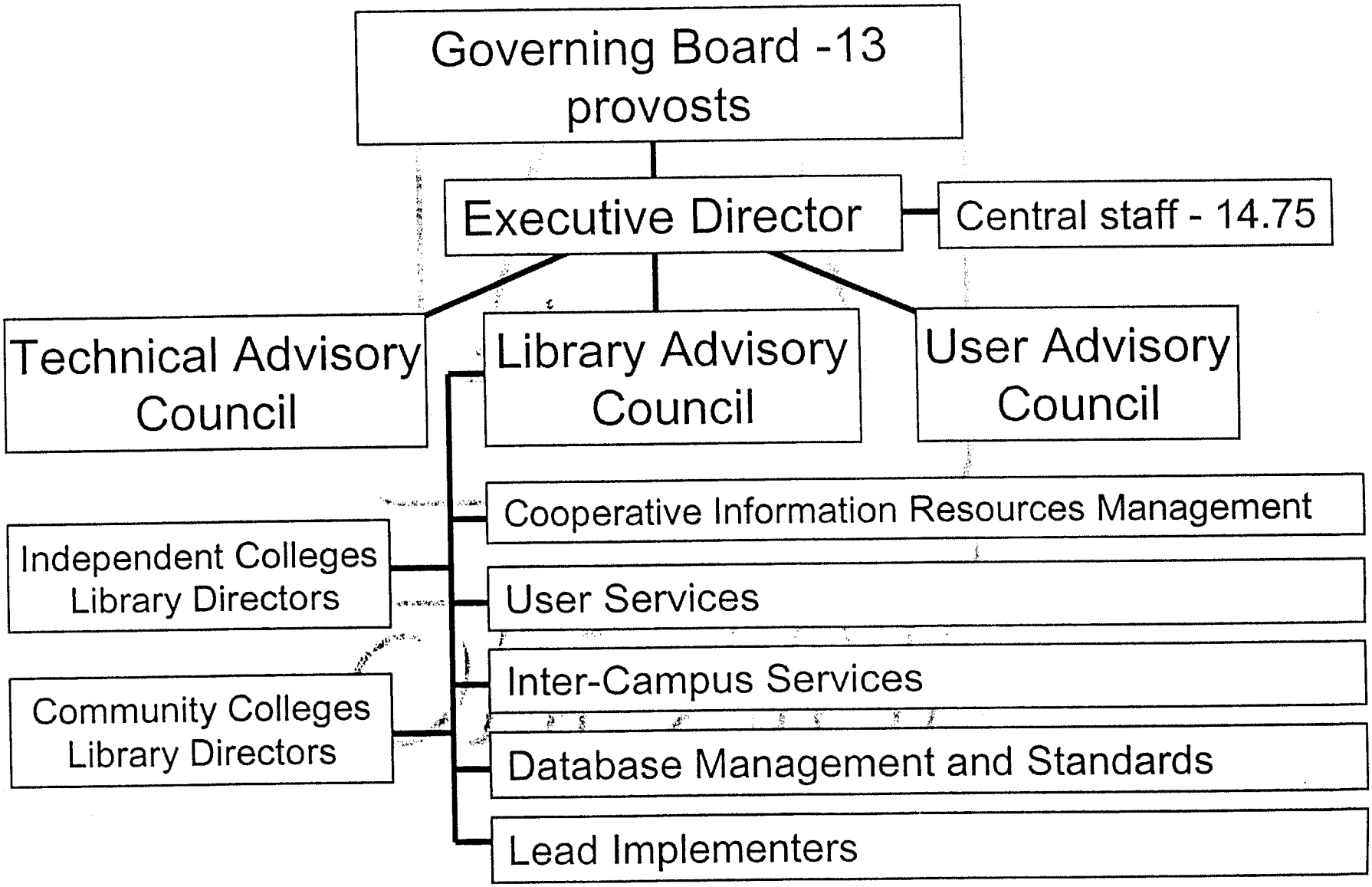
40

Appendix E:

OhioLINK Organization Chart

and Committee Information

OhioLINK Governance and Advisory Organization



OHIOLINK COMMITTEE DESCRIPTIONS

- Governing Board: Provides overall governance for the OhioLINK program. Approves budgets and provides strategic direction. Consists of university and college provosts and other OhioLINK participants as appointed.

- Library Advisory Council: Reviews and approves all policies for carrying out the OhioLINK program as proposed by the four standing committees. Discusses and approves major funding measures. Participates in strategic planning. Consists of library directors from all public universities (including two private universities), and representatives from public and two year colleges.

- Technical Advisory Council: Reviews strategic directions for OhioLINK. Makes recommendations to OhioLINK central as well as to participating campuses in regards to technical impacts of the OhioLINK program. Consists of computing directors, networking engineers, and library systems librarians.

- User Advisory Council: Reviews new directions in the OhioLINK program in light of institutional instructional needs. Consists of faculty members from campuses as represented on the Library Advisory Council.

- Cooperative Information Resources Management: Explores and makes recommendations to the Library Advisory Council on new databases and publishers that OhioLINK should consider acquiring. Focuses on cooperative resource management issues and recommends new policies and procedures. Consists of collection development and acquisitions librarians.

- User Services: Provides development input for all user interfaces developed or maintained by OhioLINK. Reviews systems and recommend enhancements. Organizes and provides training for both OhioLINK and vendor-based systems. Participates in promotional efforts. Consists of reference librarians.

- Database Management and Standards: Maintains quality standards for the central catalog. Creates policies and procedures concerning all meta-data for all members to follow. Consists of cataloging librarians.

- Lead Implementors: Overall responsibility for maintaining OhioLINK policies and procedures on local Innovative systems. Meet to share information and to participate in ongoing training opportunities. Consists of library systems librarians.

Appendix F:

Letter of Support

May 8, 2001

LSTA Advisory Council
State Library of Ohio
274 E. First Avenue
Columbus, Ohio 43201

2455 North Star Road
Suite 300
Columbus, OH 43221
Phone: 614-728-3600
Fax: 614-728-3610

Dear Sirs/Madams:

The Ohio Library and Information Network (OhioLINK) is very interested in supporting collaborative chat-based reference efforts among our member institutions.

OhioLINK is recognized as a leader for its cooperative efforts among libraries. Over the past 8-1/2 years, we have expanded access to library materials and content through inter-campus delivery services and consortial acquisition of online resources. OhioLINK provides a wealth of information resources to the higher education community of Ohio, offering a breadth and depth of database offerings matched by few if any other library consortia.

Given our progress in content expansion, plus the dramatic changes in use of the World Wide Web as a general information source, we now must focus on making our systems as useful as possible and on ensuring the maximum use of these beneficial resources to students and faculty. Patrons do not always know where to look for information, how to search for information, or how to evaluate information sources. The results are lost opportunities in the effective, enriching use of information for educational and research pursuits. Ironically, the more information rich we become, the greater the likelihood that users fail to find the most relevant sources.

OhioLINK's imperative now is to help link users to the appropriate resources. Some OhioLINK libraries report that physical library attendance figures are down. At the same time, we know that students look "on the web" to complete assignments, because "everything can be found there." Librarians understand the difference between professionally produced scholarly resources and unevaluated websites. We need to make our information expertise available to users when and where the information need exists. Increasingly, this means over the Internet.

The proposed Cooperative Interactive Web Reference Project represents a next major step in the process of more effectively serving our clientele based on their evolving needs and habits. This project has been undertaken by OhioLINK's User Services Committee at the direction of the Library Advisory Council, the library directors who establish OhioLINK's policies and directions. Because of the high level of interest in this venture, OhioLINK will support it both financially and with personnel.

We look forward to implementing the project and hope that you will look favorably on our proposal.

Sincerely,

Tom Sanville
Executive Director

Appendix G:

Hardware Specifications for

eGain Live software

eGain Customer Service Software for the Internet

eGain Live 3.6

System Requirements (V 1.0)

www.egain.com
888-603-4246

Contents

System Requirements for eGain Live 3.6 (NT) 3

Agent Machine 3

NT Server 3

Additional NT Server to Run SQL Server 3

System Requirements for eGain Live 3.6 (Solaris) 4

Agent Machine 4

Solaris Server 4

Additional Solaris Server to Run Oracle 4

System Requirements for eGain Interact 2.1a (NT) 5

Agent Machine 5

NT Server 5

System Requirements for eGain Interact 2.1a (Solaris, SPARC) 6

Agent Machine 6

Solaris SPARC Server 6

System Requirements for eGain Interact 2.1a (Solaris, Intel) 7

Agent Machine 7

Solaris Intel Server* 7

System Requirements for eGain Live 3.6 (NT)

AGENT MACHINE

Hardware

- Pentium 200 MHz or above
- 64 MB (minimum) 128 MB RAM (strongly recommended)
- Sound card, microphone and speakers (if *eGain Voice* is enabled)

Software

- Windows 98 or Windows NT Workstation 4.0 with Service Pack 5 or above (recommended)
- Microsoft Internet Explorer 5.0, 5.01 (recommended), or 5.5

NT SERVER

Hardware

- Dual Pentium II 400 MHz
- 512 MB RAM or a second hard disk (8 GB or more) so that *Live* can be installed on D drive

Software

- NT Server 4.0 SP6a
- Microsoft IIS 4.0 Web Server
- Allaire JRun 3.0
- SQL Server 7 SP2
- VeriSign SSL certificate (optional)

ADDITIONAL NT SERVER TO RUN SQL SERVER

For high volume configurations or configurations with multiple *Live* servers, we recommend that SQL Server be run on a separate NT Server.

Hardware

- Dual Pentium II 400 MHz
- 512 MB RAM, separate 8MB hard disk for SQL Server, or a RAID5 array for larger configurations

Softare

- NT Server 4.0 SP6a
- SQL Server 7 SP2
- VeriSign SSL certificate (optional)

Note: Oracle is not supported with Live 3.6 (NT).

System Requirements for eGain Live 3.6 (Solaris)

Agent Machine

Hardware

- Pentium 200 MHz or above
- 64 MB (minimum) 128 MB RAM (strongly recommended)

Software

- Windows 98 or Windows NT Workstation 4.0 with Service Pack 5 or above (recommended)
- Microsoft Internet Explorer 5.0, 5.01 (recommended), or 5.5

Solaris Server

Hardware

- UltraSPARC-II 400 MHz
- 512 MB RAM, second hard disk (8 GB or more) so that *Live* can be installed on D drive

Software

- Solaris 2.6 or above
- Oracle 8.1.5, or Oracle 8.1.6 on Solaris Server
- VeriSign SSL certificate (optional)

Additional Solaris Server to Run Oracle

Hardware

- UltraSPARC-II dual 400MHz
- 512 MB RAM, two 8 GB hard disks, or one 8 GB hard disk and a RAID5 array for large configurations

Software

- Solaris 2.6 or above
- Oracle 8.1.5 or 8.1.6 (Solaris only)
- VeriSign SSL certificate (optional)

Note: SQL and Oracle on NT is not supported with Live 3.6 (Solaris).

System Requirements for eGain Interact 2.1a (NT)

AGENT MACHINE

Hardware

- Pentium 200 MHz or above
- 64 MB (minimum) or 128 MB RAM (strongly recommended)

Software

- Windows 98 or Windows NT Workstation 4.0 with Service Pack 5 or above (recommended)
- Microsoft Internet Explorer 5.0, 5.01 (recommended), or 5.5

NT SERVER

Hardware

- Dual Processor 866 Pentium III
- 133 MHz bus
- 512 MB RAM
- 9 GB 1,000 RPM Fast SCSI Drive

Software

- Windows NT Server 4.0 SP4 or above
- IIS 4.0 (NT Option Pack 4.0)
- Java 1.2.2 or above
- Allaire JRun 2.3.3
- VeriSign SSL certificate

Note: eGain Interact 2.1a (NT) *is supported only with* eGain Live 3.6 (NT) *under licensed contracts.* Interact *and* Live *should not be installed on the same machine.*

System Requirements for eGain Interact 2.1a (Solaris, SPARC)

AGENT MACHINE

Hardware

- Pentium 200 MHz or above
- 64 MB (minimum) or 128 MB RAM (strongly recommended)
- Software
- Windows 98 or Windows NT Workstation 4.0 with Service Pack 5 or above (recommended)
- Microsoft Internet Explorer 5.0, 5.01 (recommended), or 5.5

SOLARIS SPARC SERVER

Hardware

- Netra T1120 or E220R (recommended)
- Dual 440 MHz or Dual 450 MHz (recommended)
- 512 MB RAM

Software

- Solaris 2.7 or 2.8, freshly installed
- Apache 1.3.6 or above with Mod_Rewrite installed
- Apache Jserv 1.1
- Java 1.2.2 or above
- Covalent Raven SSL SW or OpenSSL
- VeriSign SSL certificate

Note: eGain Interact 2.1a (Solaris) *is supported only with* eGain Live 3.6 (Solaris) *under licensed contracts.* Interact *and* Live *should* ***not*** *be installed on the same machine.*

System Requirements for eGain Interact 2.1a (Solaris, Intel)

AGENT MACHINE

Hardware

- Pentium 200 MHz or above
- 64 MB (minimum) or 128 MB RAM (strongly recommended)

Software

- Windows 98 or Windows NT Workstation 4.0 with Service Pack 5 or above (recommended)
- Microsoft Internet Explorer 5.0, 5.01 (recommended), or 5.5

SOLARIS INTEL SERVER*

**This is the hardware currently used in hosted environments. It is subject to change.*

Hardware

- Dual Processor 866 Pentium III
- 133 MHz bus
- 512 MB RAM
- 9 GB 1,000 RPM Fast SCSI Drive

Software

- Solaris 2.7 or 2.8, freshly installed
- Apache 1.3.6 or above with Mod_Rewrite installed
- Apache Jserv 1.1
- Java 1.2.2 or above
- Covalent Raven OpenSSL
- VeriSign SSL certificate

Note: eGain Interact 2.1a (Solaris, Intel) *is supported only with* eGain Live 3.6 (NT) *for hosted deployments.* Interact *and* Live *should* ***not*** *be installed on the same machine.*

eGain Live Channel Sizing Guide

EGAIN LIVE 3.5/3.6 SCALABILITY TEST SUMMARY 2

EGAIN INTERACT 2.1/2.2 SCALABILITY TEST SUMMARY 3

SIZING FORMULA FOR LIVE 3

SIZING FORMULA FOR INTERACT 4

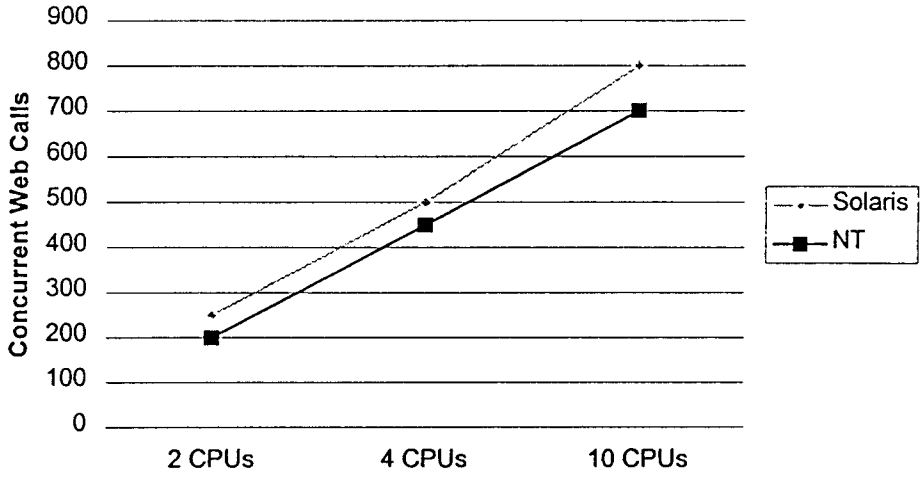
NORMAL USAGE SCALABILITY METRIC FOR LIVE & INTERACT 4

SERVERS REQUIRED FOR 'NORMAL USAGE' PEAK LOAD 5

eGain Live 3.5/3.6 Scalability Test Summary

eGain conducted extensive scalability testing at eTesting Lab (ZD Lab) to objectively confirm the scalability results of internal testing. eTesting Lab confirmed that eGain Live scales linearly with hardware and there are no software constrains in scaling Live to meet enterprise demands.

eGain Live is CPU bound and can be scaled effectively by making more CPUs available to Live either on the same server or different servers. The graph below shows the linear scaling of eGain Live.



	2 CPUs*	4 CPUs*	10 CPUs*
Solaris-1 Gig, Ultra Sparc2 400	250 concurrent web calls	500 concurrent web calls	800 concurrent web calls
NT-1Gig, Pentium III 500	200 concurrent web calls	450 concurrent web calls	700 concurrent web calls

*Application Server, Web Server and Database Server on same server.
**Four 2 CPU Application & Web Server servers and One 2 CPU Database Server.

Polling Interval of 5 sec (Default Live Settings)

Note:- Above numbers are conservative and should cover the real world variables like network latency and 24x7 load. Also, these numbers apply to Live system without SSL. If SSL is used, reduce the above numbers by 30%

For more information on eTesting Lab results, please refer to Live Scalability White Paper

eGain Interact 2.1/2.2 Scalability Test Summary

eGain Interact scalability testing was done in-house. Based on the scalability testing, eGain Interact can support around 60 concurrent sessions per 2 CPU server.

Sizing Formula for Live

Besides web calls, following activities contribute to the load of eGain Live server:

1) People waiting in Queue
2) Meetings
3) Administrative functions like creating users, etc.
4) Running Reports
5) Running Monitoring Screens

Based on the design of the system, we estimate the following relation between web call, people in queue and people in meetings:

2 people in queue=1 web call
2 people in meetings=1 web call

Monitoring, Reporting and Administrative functions load on Live is ignored in the formula as the load is intermittent and can be shifted to off peak times if required.

Based on above relationships and assumption, the formula to calculate peak equivalent web calls is:

Equivalent Web Calls* = Peak Concurrent Web Calls + ½(Peak number of people in queue) + ½(Peak number of people in meetings)

*Assuming all peaks occur at the same time

Example

If you expect to have 150 concurrent web calls, 60 people in queue and 100 users in meetings at peak time and assuming all peaks are at the same time:

Equivalent # of concurrent web calls=150 + (60+ 100)/2=230

Thus, you need two NT server with dual Pentium III 500 MHz CPUs and 1 gig memory or one Solaris server with dual Ultra Sparc2 400 MHz CPUs and 1 gig memory.

Sizing Formula for Interact

Since Interact is used only in Web-Calls for Escort, Interact is not loaded in any other ways other than in escort mode. To figure out number of Interact servers required, simply divide the peak concurrent Interact sessions with number of concurrent sessions supported by one Interact server.

Please note that not all Live chat sessions will need Interact Escort session. Generally, one out of five Live chat sessions will involve Interact.

Normal Usage Scalability Metric for Live & Interact

In our customer base, we have seen following relationship between web calls, queue depth and meetings:

1) Queue Depth (number of people waiting in the queue) tends to be about 20% of current calls.
2) At most, there are 2 concurrent meetings with about 5 people during peak load.
3) About one out of five sessions use Interact for escorting.

If we use the following assumptions; then equivalent web calls formula for Live can be simplified to have only one variable as shown below:

Equivalent Web Calls = Web Calls +1/2[0.2(Web Calls)]+2*5

Or

Equivalent Web Calls = 1.1*Web Calls +10

Using above formula and assumptions, company simply needs to estimate peak concurrent web calls to determine the hardware required to support eGain Live and eGain Interact. Following table shows servers required for various peak web calls load:

Servers Required for 'Normal Usage' Peak Load

			# of Live Servers w/o SSL		# of Live Servers with SSL		
Web Calls	Equivalent Web Calls	Estimated Interact Sessions	NT-1Gig, Dual Pentium III 500	Solaris-1 Gig, Dual Ultra Sparc2 400	NT-1Gig, Pentium III 500	Solaris-1 Gig, Ultra Sparc2 400	# of Interact Servers
25	38	7.5	1	1	1	1	1
50	65	13	1	1	1	1	1
100	120	24	1	1	1	1	1
150	175	35	1	1	2	1	1
200	230	46	2	1	2	2	1
300	340	68	2	2	3	2	2
400	450	90	3	2	4	3	2
500	560	112	3	3	4	4	2
600	670	134	4	3	5	4	3
700	780	156	4	4	6	5	4
800	890	178	5	4	7	6	4
900	1000	200	5	4	8	6	4
1000	1110	222	6	5	8	7	4
1100	1220	244	7	5	9	7	5
1200	1330	266	7	6	10	8	5
1300	1440	288	8	6	11	9	5
1400	1550	310	8	7	12	9	6
1500	1660	332	8	7	12	10	6
1600	1770	354	9	8	13	11	6
1700	1880	376	10	8	14	11	7
1800	1990	398	10	8	15	12	7
1900	2100	420	11	9	15	12	7
2000	2210	442	12	9	16	13	8
2100	2320	464	13	10	17	14	8
2200	2430	486	12	10	18	14	9
2300	2540	508	14	11	19	15	9
2400	2650	530	14	11	19	16	9
2500	2760	552	14	12	20	16	10

Note 1: For 4 CPU servers, divide the # of servers required by 2.
Note 2: Database can be on either one of the application servers or on dedicated server without material impact on the load.

Appendix H: Project Promotion Plan

Using the LSTA grant, the project plans to promote the new service using both print and online tools. First, a new logo for the reference service will be professionally designed for use in both print and online environments. The logo will be a point-and-click connection to the reference service within library resources. The logo will also be used on bookmarks promoting the service. These will be distributed among the OhioLINK community using an already established contact list. A large portion of the 42,000 bookmarks will be distributed immediately, and OhioLINK will have a small reserve to fill future requests. Finally, advertisements using the new logo will be purchased in Ohio's 15 public universities and two major research universities online student newspapers. The project will contribute up to $100 towards the purchase of the advertisements in each of these newspapers. Any additional costs will be funded by the institution's library.

Reporting the results of the project will be an ongoing process; much of the reporting will occur through usual OhioLINK channels: reports to and by various committees. It is expected that there will also be a great deal of e-mail communication among the participants as well as e-mail reports to the OhioLINK community at large. In addition to reporting, most of these communications will serve the function of getting feedback on the service to refine our efforts. This ongoing process of reporting and revising service is standard for OhioLINK services.

Statewide meetings such as the annual meeting of the Academic Library Association of Ohio (ALAO) will provide other venues in which the project may be addressed. Given the relative newness of such projects and the scale of the OhioLINK consortial effort, it is likely that

results and progress will be reported to the wider library community through professional articles and conferences.