London Public Library

REPORT TO THE LIBRARY BOARD
MEETING DATE: MAY 26, 2009

Session:	Public Session
Subject:	2010 Capital Budget – Integrated System Business Case
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Purpose of Report:	For Receipt ☑

Recommendation

It is recommended that the Library Board receive this report.

Issue / Opportunity

The purpose of this report is to present background information about the *LPL Integrated System* (and sub-component *Integrated Library System*) to the Library Board. This information is for consideration in the approval of the draft *2010 LPL Capital Budget* tabled for the Board meeting of June 25th, 2009.

Background & Review

The LPL Integrated System (IS) includes a number of technology applications that support service and infrastructure capabilities, e.g.:
- Sage Accpac - accounting;
- Personnel attendance;
- Raisers' Edge – fund development;
- Statistical gathering and reporting system; etc.

An essential sub-component of the LPL "IS" is the Integrated Library System (ILS). This is a "backbone system" that supports LPL's service delivery streams:
- Reference, Reader's Advisory, and Referral;
- Collections and Lending;
- Technology;
- Programming; and
- Community Outreach.

The ILS is both a service delivery and infrastructure system. As a service delivery system, it links with other key systems, such as public computer booking, the LPL website, room booking, etc. It is also linked with assistive technology. As an infrastructure system, it links with the larger LPL Integrated System which includes corporate systems such as the staff intranet and Sage Accpac financial system. For example the Acquisitions Module links directly to Sage Accpac providing information about expenditure and encumbrance levels.

In 2000, as part of its Strategic Plan Initiative to redevelop its service backbone and infrastructure, LPL created its *Long Term Technology Plan*. On the basis of this plan and accompanying business case, LPL received capital and operational funding from the City of London in order to procure and implement a new Integrated System. Projections were made for the ongoing costs of the system and included in the long-term capital and operating budget projections approved by the Library Board and by City Council.

LPL projected need for and received the following capital funds based on an updated business case submitted in 2005 for the **2006 LPL Capital Budget**:
- 2006 - $200,000
- 2007 - $250,000
- 2008 - $250,000
- 2009 - $250,000

2010 Capital Need

Two business cases are attached which outline the capital need related to the LPL Integrated System:

Appendix A: Key Component: Integrated System – Infrastructure
Appendix B: Key Sub-Component: Integrated Library System (ILS)

The Business Case for the ILS has been updated from the 2005 case.

The projected need for 2010 is $250,000 ($50,000 = Accpac and Raiser's Edge plus $200,000 = Integrated Library System).

Next Steps

The draft *LPL 2010 Capital Budget* will be tabled at the June 25th, 2009 meeting of the Library Board providing that we have received direction and targets for the 2010 City of London budget process.

APPENDIX A: **INTEGRATED SYSTEM: INFRASTRUCTURE**

DEPARTMENT: **LONDON PUBLIC LIBRARY**
KEY COMPONENT: **INTEGRATED SYSTEM (IS): INFRASTRUCTURE**
BUSINESS CASE: **2010 CAPITAL BUDGET**

1.0 PREAMBLE

In alignment with the Balanced Scorecard strategy map, the 'Financial' perspective is supported by Sage Accpac (accounting) and Raiser's Edge (fundraising) software. Accpac consists of a set of modules which help the Library to streamline time-consuming accounting processes, manage diverse library accounting functions (operating, capital, trust fund and grant accounting) and produce detailed reports which comply with ever increasing accounting regulations.

As an infrastructure system, Accpac links with other key systems such as the core ILS system. It is also integrated with Excel and has the potential to link with the room booking system.

Context

The following provides a snapshot of the current Accpac integrated modules and functions which have created workflow efficiencies and accuracy, and effective and efficient financial data management and delivery:

- **General Ledger**: provides the foundations of the accounting system with the flexibility to meet current and future financial management requirements.
- **Reporting**: reporting tools assist with the creation of budgets and financial reports in many formats to meet diverse reporting requirements. Links with Excel create further flexibility for reporting.
- **Purchase Orders**: a fairly new addition to the suite of modules, this forms the core of a comprehensive purchasing/payable system.
- **Accounts Payable**: streamlines cash flow processes, including rapid entry of vendor invoices, flexible cash management and disbursement and full cheque reconciliation. This module also integrates with the III acquisitions module, eliminating duplication of invoice entry.
- **Accounts Receivable**: tracks outstanding balances and assists with bank reconciliations.
- **Bank Services:** complete bank reconciliation services.
- **System manager:** to administer system access and manage data processing and system security.

Raiser's Edge provides a powerful database for managing fundraising programs and donations.

2.0   PROBLEM DEFINITION

An upgrade to Sage Accpac for Windows in 2001, and integration with ILS, has meant that many functions have been streamlined, creating efficiencies in order to accommodate an ever increasing work load, and increased reporting requirements as a result of legislative changes, without the addition of staff.

In order to continue to create further efficiencies, streamline work flow and create enhanced reporting, additional modules are required for Accpac, such as human resource management.   For example, the current attendance system was created in-house and while effective does not integrate into the current accounting or payroll system.

The Library is working with an outdated version of Raiser's Edge, which is not supported. The current version was set up when the Library first began its fundraising activities, and the structure of the database is now proving insufficient for today's fundraising volume and activities.   As the software is not supported, new software will ensure that valuable data (which is backed up) is not lost due to failure of the software.

3.0   RECOMMENDED SOLUTION

The Sage Accpac human resource management system (HRMS) offers a full complement of HR, training and recruiting capabilities. HRMS Attendance tracks all types of paid and unpaid time off plans such as illness, leave of absence and vacation, eliminating time consuming report generation and calculations.

The Library should research a new fundraising system in order to meet current needs; either an upgraded version of Raiser's Edge with a link to Accpac, or an Accpac add-on module, provided that it meets fundraising tracking and reporting requirements. Integration with Accpac would reduce duplication of data entry and enhance statistical as well as financial reporting. The potential may also exist to also create a link with III for updates of customer names and addresses, eliminating time-consuming updates of records. New software will also ensure that valuable data is maintained.

Costs for the recommended solutions would be approximately $50,000.

4.0   DECISION CRITERIA

Alternatives will be analyzed on the basis of the following criteria:
- Capacity to advance achievement of *LPL Vision, Mission, Service Excellence Model*, corporate goals and objectives in being a key information services provider
- Impact on service levels;
- Impact on internal processes, human resources and other corporate needs;
- Cost effectiveness and efficiency
- Sustainability
- Potential for partnerships and collaboration

5.0   IDENTIFYING ALTERNATIVES

Consider the following alternatives:
- Maintain the status quo
- Explore different software alternatives

6.0   ANALYSIS OF ALTERNATIVES

Maintaining the status quo would result in a lost opportunity to create efficiencies, and savings in staff time. Managing information in a comprehensive and timely way allows staff to make well informed decisions.

7.0   IMPLEMENTATION AND FOLLOW UP

- Capital budget request (Life Cycle Maintenance) to support ongoing technology requirements
- Continue research into software; create project plan taking into account scope, goals, operational resource requirements, tasks, accountabilities, time lines.

8.0   RISK ASSESSMENT

The risks that should be considered include:
- Some outdated technology; using a technology that is no longer supported
- Perpetuation of duplication of tasks and time consuming manual entry
- Decrease in support to management and public service staff, as reporting and legislative requirements increase without a corresponding increase in staff.

APPENDIX B: **INTEGRATED LIBRARY SYSTEM**

DEPARTMENT: **LONDON PUBLIC LIBRARY**
KEY COMPONENT: **INTEGRATED LIBRARY SYSTEM [INNOVATIVE INTERFACES INC. "MILLENNIUM" SYSTEM]**
BUSINESS CASE: **2010 CAPITAL BUDGET**

1.0   PREAMBLE

The LPL Integrated Library System (hereafter ILS) supports the *LPL Vision, Mission* and *Service Excellence Model* and is the backbone for LPL's service delivery streams:
- Reference, Reader's Advisory, and Referral;
- Collections and Lending;
- Technology;
- Programming; and
- Community Outreach.

The product used by LPL is the "Millennium" System of Innovative Interfaces Inc.

The ILS is both a service delivery and infrastructure system. As a service delivery system, it links with other key systems, such as public computer booking, the website and room booking. It is also linked with assistive technology. As an infrastructure system, it links with the larger LPL Integrated System which includes corporate systems such as the intranet and ACCPAC financial system.

Definition

The following is a snapshot of the ILS services, data and functions resulting in service excellence to the public, staff workflow efficiencies and accuracy, effective and efficient records management, data delivery and communication flow in which all functions and data are interactive and integrated. [Note: definitions for some terms have been provided on pages 12-13.]

- Collections asset management (Selection, Acquisitions and Serials Control):
  - Procurement -- ordering, receiving, invoicing of collections materials
  - Fund and budget allocation management
  - Collections maintenance, inventory control
  - Serial publications control and routing
  - EDI linkages with commercial vendors
  - Accounting interface with financial services
- London Public Library catalogue
  - "Database" consisting of descriptive bibliographic and holdings information for collections materials in all formats using standard professional protocols

- o Links to the Library and Archives Canada, the Library of Congress, library vendors and other sources of existing catalogue and authority records
- Web Public Access Catalogue providing:
  - o Access to the LPL catalogue database of bibliographic and holdings records for collections materials and program and section records for program registration and the ability to search these records in a variety of ways
  - o Community involvement such as materials reviews and ratings
  - o Access to the calendar of programs and events
  - o Registration for programs and events
  - o Patron self registration for a temporary library account
  - o Patron empowerment with ability to manage and maintain library account with reading lists, favourite searches and databases, reading history, reviews, ratings, RSS feeds from account, holds, renewals, program registrations
  - o Single search access to partner catalogues: U.W.O. (Western Libraries)
  - o Digital library connectivity providing access to collections of information in digitized formats such as full-text magazine and newspaper databases and e-books
  - o Information seeking by providing the ability to search multiple information resources, such as the library catalogue, digital library and web concurrently or consecutively
- Discovery layer to the Catalogue offering community tagging, faceted searching, *did you mean?,* popular choices, recently added suggestions leveraging Web/Library 2.0 technologies and practices
- Readers Advisory tools, e.g.
  - o Lists of new titles
  - o Subject based lists
  - o Bibliographies
- Visual and Kids Catalogue to provide barrier-free access for people with disabilities, low literacy levels, including children
- Lending Services
  - o Transactions including and facilitating customer borrowing, return, renewal, reservation, financial functions and notification of items coming due, overdue, bills and holds to be picked up.
  - o Borrowing, return, renewal, reservation, functions
  - o Fines, fees and other financial functions
  - o Patron ability to borrow, renew and reserve materials via self-service through catalogue and self checkout workstations
  - o Lending services Interface with collection agency and update reports for accounts not paid
  - o Provision of programs and events information for marketing publications
- Programming
  - o Database of programs and events offered at LPL libraries
  - o Web Calendar of programs and events offering monthly and daily views in calendar or list format
  - o Program services transactions including program and section record maintenance, patron registration and cancellation, paid programs, wait listing, batch patron alerts

- In-Library and remote access for people to the catalogue of collections materials, digitized content, and own customer record
- Statistical tracking and management reporting on all aspects above.

Context

It is common practice for libraries to do ongoing life-cycle maintenance and upgrading of their integrated library systems to:
- Add new functionality available in order to keep customer services current;
- Leverage technology for efficiency and effectiveness;
- Replace aging and/or superseded processes and technology; and
- Uphold professional, technical and communications standards (e.g. cataloguing protocols professionally controlled by Library of Congress, International Federation of Library Associations, etc.).

This is based on a number of variables including the life-span of the system, changes in technology, and functionalities available in the marketplace.

In 2000, as part of its Strategic Plan to redevelop its service backbone and infrastructure, LPL created its *Long Term Technology Plan*. On the basis of this plan and accompanying business case, LPL received capital and operational funding from the City of London in order to procure and implement a new integrated library system. Projections were made for the ongoing costs of the system and included in the long-term capital and operating budget projections approved by the Library Board and by City Council.

The business case for the new system also included a partnership with The University of Western Ontario (UWO's participation was under the direction of University Librarian, Joyce Garnett). The partnership not only supported implementation and service development for both partners; LPL was able to make significant savings in hardware because of the relationship.

2.0 PROBLEM DEFINITION

In 2001, LPL began implementation of the current ILS: Innovative Interface Inc.'s Millennium System (III). LPL acquired processors, communication gear and other hardware.

2001-2004: LPL acquired and implemented service/infrastructure ILS modules which hold key data, such as the library catalogue and patron database, and which perform key operational infrastructure functions, such as acquisitions, serials, invoice loaders, cataloguing, circulation and the Web Public Access Catalogue.

2005/2006: Modules implemented included:
- Self-serve Checkout giving the foundation for future patron self-service and e-commerce functions
- EDIFACT Invoicing for electronic receipt of invoices from materials vendors
- Syndetics Solutions subscription interface which enhances the library Web Catalogue with cover images, summaries, tables of contents, etc.
- Ebsco Electronic Invoicing for serials
- Millennium Acquisitions- ACCPAC Accounting system Interface.

Life cycle maintenance was done to update a portion of the communications gear.

2007: Modules implemented included:
- New Catalogue foundation
- WebPAC Pro with Right Results Relevancy Ranking
- WebBridge with NetLibrary ebooks
- Inventory and Count in-house use.

The six-year-old III processor was replaced to ensure an adequate foundation for new functionality to be added in 2008 and 2009.

2008: Modules implemented included:
- Program registration module
- On-line patron self registration,
- Research pro federated searching, Collection agency interface,
- Floating collections asset management
- Print Templates (Hold wrappers and labels)
- PIN (personal ID number) for authenticating to PC reservation system
- Implementation of Catalogue new features: RSS feeds, My Library Bag, My Lists, My Reviews, My Reading History, My Ratings

2009: $250,000 capital was approved.

Implementation of the following modules is planned:
- e-Commerce for Catalogue
- e-Commerce for Program Registration and Self Serve Checkouts
- Discovery layer "Encore": a quick search of the Catalogue
- "Accessible" Catalogue, Visual/Kids Catalogue with touch screens
- 6 Self Check units and licenses with desensitizers for Central
- Teleforms TNS (telephone notification system) to replace outdated system

Projected Needs

2010: $200,000

Life cycle maintenance planning re: 3 year old III processor

Implementation: Encore Harvester (for digital content and possible website integration into Encore), AirPAC (catalogue on handheld devices, e.g. cell phones), SMS Notices (to handheld devices), Encore Reporter.

2011: $250,000

Implementation: Room Booking, RFID Technology and Security System (Radio Frequency ID to replace security strips in books), Circa (Circulation using RFID), patron Self Checkin, "Functional Requirements for Bibliographic Records" potentially changing the structure of records in the Catalogue

Note: The cost of RFID is currently being explored. Given previous estimates of approximately $400,000 to retrofit all collections materials, a phased option will be considered (with cost-benefit analysis).

Projected Replacement of ILS

In 2011, the foundation modules of the current ILS system will be 10 years old. ILS lifecycle is approximately 8-12 years depending upon a number of variables.

LPL will need to begin planning for migration to a new system or building capital for the total replacement of the system in order to maintain service levels, effectiveness and efficiency. The capital cost of a new system is currently approximately $1.5 million. Costs related to a new processor, communications gear, etc. are dependent on size and capacity requirements at time of purchase. Costs related to modules are based on the functionality and number of modules. As well funding would require funding for staff time for conversion and staff training involving all LPL staff.

3.0   RECOMMENDED SOLUTION

In 2010 and 2011, London Public Library will continue with the existing model and approach to
- Ensure that the functionality of the ILS keeps abreast of service demands and
- Upgrade and replace technology as required.

Approval of the capital request will give a number of positive, immediate benefits:
- Ability to maintain relevancy of services and customer satisfaction by implementing access to services via hand held devices and the e-commerce payment of fines, registrations and donations system-wide;
- Ability to keep up-to-date with how the public want to do business, e.g. through new technologies and discovery tools;
- Ability to increase and improve effectiveness/efficiency along with service satisfaction;
- Ability to keep pace with increasing service utilization levels through introduction of additional patron self service functions; and
- Prevention of the interruption of public services and staff workflow resulting from system downtime as computer hardware begins to age.

4.0   DECISION CRITERIA (SELECTION CRITERIA)

Each alternative was analyzed on the basis of the following criteria:

- Capacity to advance achievement of *LPL Vision, Mission, Service Excellence Model*, corporate strategic goals and objectives in being an essential public institution;
- Impact on public service relevancy and levels;
- Impact on internal processes, human resources and other corporate needs;
- Cost effectiveness and efficiency;
- Sustainability; and
- Potential for partnerships and collaboration.

5.0   IDENTIFYING ALTERNATIVES

Alternatives considered:

- Status quo (e.g. no additional modules)
- Proceed with plan as outlined above
- Immediate procurement of a new system (i.e. migration or replacement)

6.0   ANALYSIS OF ALTERNATIVES

In 2010/2011, as part of the development and implementation of the new *LPL Strategic Plan*, the Library will begin the process of:

- Needs assessment of service and infrastructure technology requirements for its ILS;
- Reviewing success of ILS partnership with The University of Western Ontario;
- Identification of national and international standards for integrated library systems, including RFID technology;
- Scanning the marketplace to review available technologies, system functionalities and potential costs;
- Analyzing cost-benefit of migration to a new system or replacement of the current ILS system;
- Developing a business case with costs, milestones and time lines; and
- Securing funding.

LPL will undertake system migration or replacement in accordance with the *LPL Procurement Policy*.

7.0   IMPLEMENTATION AND FOLLOW-UP

- Implement plans already created (include: project scope, goals, operational resource requirements, tasks, accountabilities, timelines, metrics to measure project success and service impact) for the remaining III modules and continue life cycle maintenance of communications gear.
- Measure, analyze and report on metrics.

8.0   RISK ASSESSMENT

The risks that should be considered in not funding capital needs outlined include:

- Impact on service relevancy
- Impact on service utilization levels and customer satisfaction
- Substantial increase in staff resources to support older technology
- Greater budget expenditure to "catch up" to new technologies

DEFINITIONS

AirPAC: version of library catalogue for hand held portable devices, such as iPhones, Blackberry

"Accessible" Catalogue: a new "catalogue out of the box" which meets the proposed AODA guidelines

Catalogue: WebPublicAccessCatalogue Pro (WebPAC Pro) is the new foundation to the Catalogue and offers newer technology using Right Results Relevancy Ranking to rank search results and a foundation for new features

Catalogue new features:

- RSS feeds: Really Simple Syndication Feeds for patron account transactions, such as holds ready for pickup, overdue items, favourite searches alerts, courtesy alerts

- My Library Bag: like a shopping cart feature facilitating placement of holds on multiple materials, adding materials to My Lists and/or exporting materials information

- My Lists: a wish list of materials for future borrowing

- My Reading History: a list of materials borrowed from the library with ability to exclude materials already borrowed from searching

- My Reviews: ability to review materials in the Catalogue and share reviews with public

- My Ratings: ability to rate materials in Catalogue and share ratings with public

Catalogue- Visual/Kids Catalogue with touch screens offering "images" vs. text where possible to facilitate access to library resources for children and adults in need of such an approach

Circa: Circulation of library materials on small device using RFID

Collection agency interface: billed accounts and updates are automatically uploaded from Millennium daily to LPL's collection agency database

e-Commerce: patron "self service" offers ability to pay fines and make donations "on-line" with a credit card through the Catalogue, at the Self Serve Checkout workstations and to register and pay for paid programs and events in the Program Calendar and the Catalogue

Encore: a quick search of the Catalogue: a discover tool that offers a different approach to searching our catalogue using for example "faceted search results" and community tagging

Encore Harvester: enables harvesting of OAI compliant digital content and possibly website for integration into Encore

Encore Reporter: offers customizable and canned management and statistical reports on the web with an easy manager friendly interface

Floating collections: ability to identify certain collections of materials (Quick Picks, e.g.) which take ownership of whichever branch library they are returned to, thus not being owned by any particular branch always. This keeps the materials flowing by reducing "in-transit time", thus ensuring materials get onto shelves and back into potential customer view more quickly.

FRBR: functional requirements for bibliographic records which will potentially change the structure of records in the Catalogue, causing the main record to represent the "intellectual work" vs. the "edition of the publication", with the various formats of "the work" attached (e.g. Hamlet is "the work" and Hamlet on DVD, Hamlet the written play, Hamlet the word CD, etc. all attached to "the work" Hamlet).

Inventory and Count in-house use: using hand held scanners, staff can: a. scan shelves of books and upload scanned barcodes to retrieve inventory reports; b. scan materials used by the public in the library prior to shelving

Millennium Room Booking: integration of room booking functionality into Millennium with Program Registration

On-line patron self registration: ability to register for a temporary library account on-line

PIN (personal ID number): facilitates authentication of customers for use of PC reservation system

Print Templates (Hold wrappers and labels): new technology for designing printing of hold wrappers and spine labels, saving time and effort

Program registration module: Catalogue and Calendar of library programs and events also integrated into Library Catalogue, ability for users to register for programs and events on-line, staff can register customers for paid programs and events at any branch from any branch (fully integrated registration)

Research pro: federated searching featuring ability to search library on-line databases all at once, in groupings or individually with one search key

RFID Technology and Security System: Radio Frequency ID to replace security strips in books which streamlines staff functions such as checkout, checkin and inventory of library materials

Self Serve Checkin: express service allowing patrons to check in their own materials

Self Serve Checkout: express service, allowing patrons to check out their own materials, cancel holds, renew loans (and coming soon: pay fines)

SMS Notices: receive courtesy, hold pickup and overdue notices on your cell phone, e.g.

Teleforms TNS (telephone notification system): replacement for aging existing system which informs customers by phone of holds to pick up and materials overdue

WebBridge: provides a bridge between our applicable Catalogue titles and applicable e-resources, such as NoveList (and former NetLibrary)