



REPORT TO THE LIBRARY BOARD

MEETING DATE: NOVEMBER 24, 2011

Session:	Public Session
Subject:	Internet Bandwidth and Wireless Network Report
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Purpose of Report:	For Receipt <input checked="" type="checkbox"/>

RECOMMENDATION:

It is recommended that the Library Board receive this report.

ISSUE/OPPORTUNITY

The purpose of this report is to provide information to the Library Board regarding:

- Allocation of London Public Library (LPL) Internet bandwidth resources; and
- Administrative decision to introduce “patron authentication” on the LPL wireless network and timelines for the implementation process.

The provision of public access to the Internet and to wireless capability supports LPL in achieving its mission to connect people to information, collections and technology through relevant, accessible and high quality services. The importance of Library Internet Service to people in the community is demonstrated by the fact that use of LPL’s Internet bandwidth is in great demand and has increased exponentially over the past few years. This is a result of increased demand for and use of on-line library resources, such as full-text magazine, ebook and other database subscriptions, and patron use of the wireless network. The public’s use of the Library’s wireless network has also grown exponentially since it was introduced in 2006.

From a customer service perspective, the heavy use of both the Internet bandwidth and the wireless network needs to be monitored and managed in order to ensure that LPL:

- Provides equitable access to finite library resources for all library users; and
- Facilitates responsible use of library resources by the public.

From an organizational and financial perspective, the recent exponential growth in use requires that LPL develop and implement service solutions, implement effective processes, and optimize resource allocation to manage resources within the funding envelope.

BACKGROUND & REVIEW

Monitoring and Management

Internet bandwidth is a valuable resource of LPL as it is the backbone that supports LPL on-line services as well as patrons' use of the Internet. The Library acquires resources for use by the public which are accessed through the Internet bandwidth. This includes in-house and remote use of:

- LPL's catalogue to locate materials and place holds;
- LPL's website to find information about library services and links to information resources including resources on the web;
- LPL's interactive services, such as online renewal of borrowed items and program registration;
- Subscription databases, e.g. full text magazine databases;
- Downloadable books;
- ebooks; and
- Learning software.

In addition, the public utilizes Internet bandwidth, through library workstations and the wireless network for activities such as social networking, downloading files and email.

Current Opportunity/Challenge

This combined usage of Library computers and wireless connectivity has put pressure on available Internet bandwidth. If the current trend of exponential increase in the use of these services continues, and LPL does not increase its bandwidth, high use may result in a degradation of the quality of service in the near future.

The London Public Library's Internet bandwidth is purchased from LARG*net, a non-profit organization, housed at the University of Western Ontario, which manages a communications network serving a number of non-profit and public sector Internet service providers in the City of London. LPL has been a member for over sixteen years. Through membership, the LPL enjoys competitive rates for Internet bandwidth.

LPL has increased its Internet bandwidth over the years to keep pace with requirements.

In 2010/2011, LPL increased its Internet bandwidth to 45mb at an annual cost of \$37,000. It is anticipated that the LPL's current Internet bandwidth connection will need to be increased in 2012/2013 to accommodate the volume of traffic.

It is critical that the Library maximizes the efficiency of the Internet connectivity to ensure equitable access for all users of the Internet bandwidth in order to be able to ensure the continued access to valuable Library resources. IT Services will continue to monitor the Internet bandwidth usage to ensure its efficiency.

Patron Authentication on the Wireless Network

Usage of LPL Wireless Service

Wireless access through personal devices is available throughout the library system and has become part of LPL's mainstream computer access/usage.

The public wireless network was introduced as a service in the new Central Library in 2006 in anticipation of a growing demand for Internet based information and services. Since that time the wireless network has been extended to all branch library locations, except for Glanworth and Lambeth. Within the Central Library the network has been expanded to accommodate volume of use.

Table 1: Wireless Use 2008-2011

Year	Uses
2008	34,731
2009	45,943
2010	118,370
2011 (3 rd Quarter actual to date)	116,674
2011 (Projected year-end total)	150,000

Wireless Internet access is only available within library hours of operation. Wireless devices, such as laptops and smart devices, currently have no restrictions on the length of session or type of applications that can be used to access the Internet.

Research and Analysis

Staff have been exploring ways in which to ensure that all users will continue to have equitable access to finite resources. Requiring patron authentication in order to access LPL's wireless services is the solution which best meets service and operational criteria. The use of authentication for the wireless service is consistent with the requirement to authenticate in order to access the Internet using library computers.

LPL has surveyed other medium and large library systems in Canada to ascertain the extent of use of authentication on wireless systems. Of those libraries contacted, about 50% of them required some form of authentication.

For the past year, LPL Information Technology Services has been identifying and evaluating new technological solutions to meet the requirements of authentication including:

- Required acceptance of an “I agree statement”; and
- Patron identification authentication linked to the patron registration record in the Library patron database.

The Library currently uses an application called “Sign Up” to authenticate users on Library workstations. Users provide a valid library patron identification number and PIN. The system verifies that the patron is in good standing and access to the workstation and Internet is provided. Signup also provides for on-line computer reservation. The Library is able to generate statistics to monitor/evaluate usage.

The wireless network will work the same way but require different software which will work with the Library’s Innovative Interfaces Inc. Millennium integrated library system software.

Policy Context

Public computer workstations using LPL’s wired network are governed by the *Computer Use Policy* and the *Internet Services Policy*. Access to specific content on the wireless network is addressed therefore in the *Internet Service Policy Review*. The LPL wireless service is also subject to all relevant Library policies such as the *Charter of Library Use*, *Rules of Conduct*, etc.

In addition, the Library has legislated responsibilities as an Internet service provider (ISP), under Statutes of Canada 2011, Chapter 4: *An Act respecting the mandatory reporting of Internet child pornography by persons who provide an Internet service*.

LPL administrative staff met with an officer from London Police Services, Cyber Crime Unit, to provide information about and receive comment on the authentication process being considered and to ensure that protocols are in place, current and documented so that immediate and effective action can be taken in the event of alleged criminal activity in library space.

Sources of Funding

Acquisition of the technical hardware/software that will meet both the need to manage the Internet bandwidth as a resource and the need to implement the patron authentication process will take place in December 2011/January 2012. The source of funding for these initiatives is within the current 2011-2012 capital and operating budgets. Additional funding would be required in the 2013 operating budget for ongoing operational sustainability.

NEXT STEPS

The following are the implementation timelines with a target to “go live’ on March 1, 2012:

- December-January 2012:
 - Purchase, install and test upgrade to wireless network and connection with the ILL Integrated Library System;
 - Develop and launch communication with the public regarding change in procedures; and
 - Ensure monitoring processes are in place to assess impact of changes;
- January-March 2012:
 - Update policy and procedure documentation; complete staff training; and
 - Introduce authentication on public wireless network, system-wide;
- September 2012:
 - Report to the Library Board on the impact of patron authentication with regards to the use of the wireless network.