



To: Toronto Public Library Board – April 8, 2002

From: City Librarian

Subject: **Technical Environment Review**

Purpose:

To advise the Toronto Public Library Board of the results of the Technical Environment Review. To obtain Toronto Public Library Board approval for the recommended hardware and software for the Virtual Reference Library (VRL) Technical Environment Upgrade.

Funding Implications and Impact Statement:

The funding for the VRL Technical Environment Upgrade was approved as part of the 2002 capital and operating budget, which included one-time costs of \$638,000 and 2002 leasing costs for hardware and software of \$207,000 (full year impact of \$276,000). Annual maintenance costs estimated at \$99,825 are accommodated within the operating budget.

Recommendation:

It is recommended that:

1. The Toronto Public Library Board receive the Technical Environment Review report for information; and that
2. The Toronto Public Library Board approve the following recommended hardware and software for the Virtual Reference Library (VRL) Technical Environment Upgrade:
 - (a) Server Hardware: Sun servers running Solaris OS
 - (b) Web Services Software: BEA WebLogic
 - (c) Database Software: Oracle
 - (d) Integrated Development Environment Software: WebGain Studio
 - (e) Source Control Software: PVCS Professional
 - (f) Search Engine Software: Inktomi
 - (g) Content Manager Software: PVCS Content Manager
 - (h) Digital Asset Management Software: Canto Cumulus

Background:

The VRL Technical Environment Upgrade project supports the Library's strategic directions for the delivery of information services over the web. The "state of good repair" project will update

the Library's web environment to address concerns about support for key application software and integration of hardware and software. The upgrade project will address shortcomings that have led to ad hoc, interim solutions for our new web site. The upgrade project is critical to the implementation of the next gateway project. The Library's ability to attract external funding for new gateway initiatives will be enhanced with an up-to-date technology environment.

In preparation for the upgrade project, in September 2001 the Library issued a Request For Proposal (RFP) to select a firm to conduct a review of the Library's web services technical environment (VRL, Digital Collections, Website). At its meeting of November 19, 2001, the Board approved the award of contract to DMR Consulting.

The Toronto Public Library appointed a Steering Committee and Project Team to manage the project and act as primary contacts for DMR Consulting.

Key points in the process were:

- the Library used the RFP process to engage a consulting firm to provide an independent opinion;
- the conflict of interest provision in the RFP stated that the consulting firm could not make recommendations for products in which it had an interest;
- the scope of work, as described in the RFP, included recommending hardware and software;
- this process establishes Library standard products as listed in Attachment 1;
- the standard products will be acquired through the competitive purchasing process.

Comments:

The TPL Project Team worked closely with the DMR Consulting Team to provide critical information and feedback during the course of the project. The TPL Project Team and the Steering Committee reviewed the reports at various stages while they were being drafted, to ensure that the Library's requirements were being met and to ensure that the recommendations would be acceptable to the Library. The recommendations are in keeping with the Library's objectives for the upgrade of its web-based services technical environment.

The report recommends that the Library follow the City standards for server hardware and software (and specifies which of the City's alternatives should be adopted), database management, backup and recovery, and development languages. In those cases, the Library already follows or is planning to implement the City standards.

In one key area, the web server and web server application environment, the report recommends that the Library implement another leading product that better suits its environment, service needs and costs constraints, but does not follow the City standard.

In other areas, such as source control, content manager and digital asset management, the City had not established standards. The table of recommended hardware and software is presented in Attachment 1.

The report proposes an 18-month migration plan, segmented into six Quarters, starting July 2002. The migration plan is aggressive but moving quickly to the new environment is more desirable than extending the process beyond 2003. The hardware and software will be installed in the first Quarter. Migration of the web-based services will begin in the first Quarter, with the migration of services to be completed by the fifth Quarter. The Library intends to use external resources for the migration project, since existing staff are fully committed to projects already underway and to on-going support.

Based upon costs estimates provided in the consultants' reports, costs are manageable within the approved capital and operating budgets.

The recommendations and detailed information in the reports provides a solid foundation for the next steps. The migration strategy is detailed enough to present a clear picture of the challenges and the way forward. The Library is committed to maintaining access to its web services during the upgrade and the migration plan is structured to meet that goal. The Library will be building a stable, scalable, easy to use platform for its web services. The new environment will better support its existing services, provide for common tools that will be used across all web services and ensure that we will be positioned to support new services as the funding opportunities arise.

Conclusion:

It is recommended that the Toronto Public Library Board approve the recommended hardware and software for the Virtual Reference Library (VRL) Technical Environment Upgrade listed in Attachment 1.

Contact:

Ron Dyck, Director, Information Technology & Bibliographic Services; Tel: 416-393-7104; Fax: 416-393-7083; E-mail: rdyck@tpl.toronto.on.ca

Larry Hughsam, Acting Director, Administration; Tel: 416-397-5946; Fax: 416-393-7115; E-mail: lhughsam@tpl.toronto.on.ca

City Librarian

List of Attachments:

Attachment 1: Recommended Hardware and Software