



CITY OF VANCOUVER

ADMINISTRATIVE REPORT

Report Date: April 9, 2007
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RTS No.: 6681
VanRIMS No.: 04-4000-20
Meeting Date: May 1, 2007

TO: Vancouver City Council
FROM: City Clerk
SUBJECT: Electronic Records Document Management System Project (ERDMS)

RECOMMENDATION

- A. THAT Council
- (i) Approve in principle the phased implementation of a Corporate Electronic Records & Document Management System (ERDMS) at a total one time cost anticipated to be \$7.727 million (2006) and ongoing cost of \$727,000 annually upon completion;
 - (ii) Direct that the compatible records of all departments be included in the implementation; and
 - (iii) Request the Park Board, Library Board, and Police Board to endorse and participate in this initiative.
- B. THAT the first phase of the implementation begin in 2007 at an estimated one time cost of \$1.706 million and ongoing costs of \$48,500 annually beginning in 2009; source of funding for the one time costs to be \$1.0 million from 2006 Capital Budget (ERDMS) and the balance (\$706,000) to be provided from the 2007 Capital Budget (ERDMS) (RTS #06612). Source of ongoing costs to be provided by the operating budget without offset.
- C. THAT Council instruct the ERDMS Project Team to submit a request for the balance of the necessary funding (\$6.021 million) to the 2009 - 2011 Capital

Plan process for consideration with other capital expenditure priorities; noting that this implies additional operating costs of \$226,000 in 2010, \$650,600 in 2011, and \$726,800 in 2012 and annually thereafter. These operating cost increases and the addition of two full time sustainment positions in 2011 will be reported to Council for approval concurrent with requests for Capital funding in those years.

- D. THAT Council authorize staff to prepare and issue a Request for Proposals related to the ERDMS software with a report back to Council on the process and project costs in November 2007.
- E. THAT Council approve the creation of a regular full time Project Manager position at an annual cost of \$105,000; source of funding to be the project budget. On completion of the ERDMS project the Project Manager will be deployed to other City Information Technology projects and funded by those projects.

CITY MANAGER'S COMMENTS

The City must improve its ability to manage electronic and tangible documents. Documents are currently duplicated, are often redundant and frequently difficult to locate, causing inefficiencies and an inability to exploit the information contained in them as corporate business assets. All large organizations, including the City, are particularly challenged to manage their electronic documents.

A City wide records and document management system will enhance our ability to comply with our statutory obligations, reduce our search times for FOI and other purposes, reduce our ever increasing storage costs and enhance our ability to protect corporate memory. Efficiency gains and reduction of risk are benefits of this important business initiative.

In recognition of the organizational and staff impacts of implementing this new technology at the same time that several other large business initiatives are in progress including 311, IMS, Amanda and VOIP, staff recommends a phased approach which has the advantage of spreading the capital requirements over two capital plans.

Improving our document management capability has been a long standing goal for the City. With the work recently completed developing a new classification system, the next planned step of that work is to implement this electronic records and document management system.

The City Manager endorses the approach discussed in the report and recommends approval of the foregoing to address an important business need of the organization.

COUNCIL POLICY

Council approves major new initiatives in the organization, including approval of funding. Council approves the allocation, and reallocation, of funding identified in the Capital Plan.

The recommendations are consistent with Council Policy AG-002-01 on records management, and with the Records Management By-law 9067. The policy and by-law establish the authority and responsibilities necessary for the management and control of the records of the City of Vancouver so that they are organized, secure, retrievable, and legible, maintained under

appropriate conditions, retained according to statutory requirements, and managed throughout their life-cycle.

PURPOSE

The purpose of this report is to seek Council's approval to proceed with steps that will lead to the phased implementation of an Electronic Records & Document Management System to manage the life-cycle of the City's records and document assets.

BACKGROUND

The primary objective of the ERDMS project is to purchase and implement a corporate-wide electronic records and document management system. An ERDMS is a software tool that will enable the City to efficiently manage all records and documents created and maintained in both electronic and hardcopy format. It will manage the security, retrieval, and retention of every City record, and provide a means for collaboration.

All organizations - whether they are in the public or the private sector - are challenged with managing the explosive growth of electronic records in diverse formats. The City is falling behind acceptable practices in this area. While some business units have implemented piecemeal solutions to manage certain types of electronic records, most of the City's electronic resources are essentially unmanaged. The ERDMS project will provide an integrated, corporate-wide solution to this problem. It will substantially improve the business processes of the City by addressing critical business process needs for efficient retrieval of document-based information, document sharing and collaboration, and integration of document management best practices with enterprise transactional databases that are the normal tools of any large organization today.

The ERDMS project is an extension of work completed on the Corporate Records Standards Project, which was authorised by Council in October 2003, and ran until April 2006. Deployment of ERDMS is part of an ongoing effort, dating back more than thirty years to establish a corporate-wide infrastructure for records and information management. Earlier efforts saw the enactment of three by-laws (1969, 1972, and 1978), the introduction of a corporate records management program (1970), and the establishment of a Records Management Committee (1977). The goals, then as now, have been to improve efficiency in the delivery of services, and to preserve the City's corporate memory. Under the current legislative and business context, there are increasing demands for transparency, accountability and risk mitigation.

There is also an essential need to ensure computer-produced records, including electronic images, can be accepted in the Courts. Without a secure record-keeping system in which to store these records and established standards and practices ensuring the system's integrity, electronic documents may not be admissible. The absence of such acceptable electronic systems precludes the City from destroying physical documents even though they may exist in electronic form. This increases storage costs.

Software solutions for managing records and documents have been deployed on a departmental basis (e.g. Domino in Community Services and PC DOCS in City Clerks and Legal Services). These systems are not used corporate-wide, manage only a limited portion of the City's electronic records, and do not manage the complete life-cycle of documents and records, from creation and use through to final disposition, the latter either by destruction or

transfer to the City Archives. The ERDMS Project represents the first effort to deploy a corporate records and document management software solution.

In a 1992 report *Information Systems Plan*, prepared by the Manager of Technology Planning, the authors described a vision of information management at the City of Vancouver:

In years to come a computer screen will be a standard fixture on every desk. Through this one screen all the information stored within the City (and much Outside) will be readily accessible through an easy to use interface that will not require specialized training. The information will be catalogued and described so as to minimize potential ambiguities in its interpretation. The individual user will see a "view" of that information which reflects his or her individual needs.

This vision has only been partly realized. In fact, it could be argued that, through the internet, City staff have better access to electronic information outside the City than to information within. ERDMS will address this by providing a single window to all of the City's document based assets. There will be one electronic copy of a given document, accessible by all authorized to view it.

The experience of others in ERDMS implementations demonstrates that the bulk of work is in dealing with the way that employees manage records and documents in the organization. Failure to have an up-to-date classification standard, and staff trained in its use, typically results in the ERDMS Project not being successful. The City has planned to avoid these circumstances. The City standard for records classification and retention, VanRIMS, has been developed, implemented and promoted over the past two years. Over 100,000 files have received VanRIMS classifications. Every business unit in the City has been involved in the process and are implementing VanRIMS for hard copy files. Over 600 staff participated in the approval process and/or implementation of VanRIMS.

The Corporate Records Centre (CRC) began processing record transfers under VanRIMS in July 2006. Since that time, City records may only be transferred to the CRC if they have a VanRIMS classification.

DISCUSSION

Currently electronic documents in the City of Vancouver are not well managed. Duplicate, redundant, and outdated copies exist in many locations, and are stored in many different files and formats. Retrieval of information on a particular subject is a time-consuming and labour-intensive task. Each business unit keeps critical records and documents locally, restricting access by other business groups. With the increase in the number of desktop computers throughout the City, electronic records are being created without consistent procedures for their creation, storage, retrieval, retention, and disposition. This situation exposes the City to risk.

The goals of the ERDMS project are:

- a. To improve transparency and accountability:
 - By providing an effective means of complying with statutory obligations by documenting records retention practices and demonstrating that they are routinely carried out.
 - By providing a higher guarantee of protection of privacy in accordance with legislation.
 - By reducing search times on Freedom of Information requests, as well as routine requests for information, which increases citizen confidence in City services.
 - By managing the full life cycle of City records, which guarantees long-term accountability as the City's Digital Archives Programme assumes control over records of ongoing value (after business use ceases).
- b. To increase efficiency and ensure sustainability of service:
 - By reducing costs associated with inefficient search and retrieval activities.
 - By providing a collaboration and version control tools which allow easy and logical tracking of multiple versions of the same document in different stages of work.
 - By reducing the ongoing and rising costs of system silos as departments would otherwise need to solve their business needs by creating home-grown, redundant solutions.
 - By reducing storage costs by eliminating document duplication in directories and e-mail attachments (with an ERDMS there would be no email attachments, only links to documents sent between staff).
 - By establishing a Digital Archives to ensure long-term preservation and access to the City's permanently valuable electronic records.
 - By providing a single window and search capabilities for the document-based information needs of all City staff.
 - By providing an opportunity for reducing reliance on paper documents and records.
 - By facilitating the development of e-government services for citizens.
- c. To protect corporate memory:
 - By reducing the loss of information assets by ensuring that records are locked to prevent tampering, and are therefore reliable and trustworthy evidence of the business they document.
 - By providing consistent, corporate-wide access points through VanRIMS.
 - By guaranteeing both staff and citizen access to records in all media over the long term through the City of Vancouver Archives and its Digital Archives Program, subject to protection of privacy and authorized restrictions.
- d. To mitigate corporate risks:

- By ensuring that records are destroyed at a time and in a manner prescribed by legislation and/or policy.
- By providing audit capability to demonstrate that every corporate record is created, used and disposed of in the usual and ordinary course of business and that it is the usual and ordinary course of business to manage the records this way, as defined through the City's records management by-law, policy, corporate classification and retention standard (VanRIMS), and other records and information management procedures.
- By providing enhanced document and record security and thereby ensuring the maintenance of the integrity of records throughout their life cycle in order to ensure their admissibility into evidence, if required, and their ability to produce legal effect. In short, guaranteeing the authenticity of electronic records.

ALTERNATIVES/OPTIONS

There are no alternative options to a corporate electronic document management system that will meet the goals established to be able to share, protect and authenticate electronic documents corporately. Disparate implementations in various Service Groups will fail to optimize, and may alone disable the capacity to effectively share documents across the organization. Neither will other potential options avoid cost. Business units have a critical need to manage their electronic documents for service and business purposes. Not proceeding with a corporate response will force them to develop their own sub-optimal solutions and request funding for those.

FINANCIAL IMPLICATIONS

1. Costs

Although based on a comprehensive and detailed model, the costs presented here for ERDMS are estimates only and will remain so until an RFP has been issued and the responses reviewed.

The ERDMS project is one of three projects, with 3-1-1 and VOIP, managed by the Access Vancouver program. The synergies between the three projects allow costs for change management, training, and technical resources to be shared, therefore reducing the total cost of the three projects.

The total estimated implementation cost is \$7.727 million (\$2006). To match available funding in the Capital Plan, the Project Team is proposing to divide the implementation of ERDMS into at least two phases. The first phase to be undertaken during 2006-2008 cycle is \$1.706M. This is a stand alone phase and implementation of ERDMS in this phase is not dependent on completion of future phases, although to achieve maximization of the business benefits full implementation is necessary. The balance of the funding to be sought in the 2009-2011 Capital Plan cycle is \$6.021M.

	2006- 2008	2009-2010	Total
Project Management	\$327,000	\$356,000	\$683,000
Business Resources	\$177,000	\$644,000	\$821,000
Technical Resources	\$227,000	\$808,000	\$1,035,000

Change Management & Training Resources	\$182,000	\$458,000	\$640,000
Departmental Backfill	\$156,000	\$404,000	\$560,000
Consultants	\$95,000	\$39,000	\$134,000
Hardware	\$100,000	\$0	\$100,000
Software	\$143,000	\$2,357,000	\$2,500,000
Integration/Interfaces	\$0	\$155,000	\$155,000
Project Team Training	\$38,000	\$60,000	\$98,000
Supplies/Materials	\$12,000	\$18,000	\$30,000
Equipment	\$24,000	\$10,000	\$34,000
Overhead (Rent)	\$80,000	\$165,000	\$245,000
Total (before contingency)	\$1,561,000	\$5,474,000	\$7,035,000
Contingency	\$145,000	\$547,000	\$692,000
Total	\$1,706,000	\$6,021,000	\$7,727,000

The total associated additional on-going operating costs per year are:

	2009	2010	2011	2012 & ongoing
Licenses	\$28,500	\$206,000	\$433,000	\$500,000
Hardware Upgrade	\$20,000	\$20,000	\$20,000	\$20,000
Consultants	\$0	\$0	0	\$2,000
Sustainment Team (1 Systems Analyst, 1 Corporate Records Administrator)	\$0	\$0	\$180,200	\$187,200
Training	\$0	\$0	\$5,400	\$5,600
Office Space	\$0	\$0	\$12,000	\$12,000
Total	\$48,500	\$226,000	\$650,600	\$726,800

2. Project Business Case

Benefits

Studies of ERDM system implementations in other cities and government organizations¹, and studies of implementations issued by market research agencies², indicated that an ERDMS will result in both savings and avoided future costs. These relate to labour, office space, electronic and paper storage, and supplies costs as well as license cost savings for departmental document management systems. These savings are an estimate of improved efficiencies and productivity throughout the entire organization.

Using experience from these other implementations, it is anticipated that the ERDMS project at the City could result in significant benefits. ERDMS systems are thought to save each user 15 minutes per day in records and document management activities. With a potential user group of 5,000, this translates to approximately 1,250 hours daily. In addition, the studies and

¹ Richmond, Coquitlam, Translink, GVRD.

² Gartner Research, 2001; Coopers & Lybrand, 2004; Nucleus Research Inc, 2004.

research suggest ERDMS will reduce new office space requirements by roughly 15%, reduce the cost of paper and electronic storage, and reduce the use of paper supplies by up to 25%.

The described benefits are real and are expected to be realized across the organization over time, in various service areas and departments. This report does not propose the direct recovery of savings from budgets because of the diffuse manner in which they will occur and their wide functional distribution. There will be no actual reduction or elimination of FTE positions. However staff time currently wasted searching for or replacing misplaced or lost documents or records will be freed for other value-added work. However, these efficiencies and improved business processes resulting from the capability to protect and share documents across the organization will enable the absorption of increasing program demands and tightening budgets in succeeding years. ERDMS will reduce the impact of growth on City resources.

3. Project Funding

The one time funding for the implementation of ERDMS was not specifically provided for in the 2006-2008 Capital Plan. However, the Capital Plan did allocate \$5 million for three projects: a 311 Call Centre Project, upgrading of the City's electronic voting equipment, and ERDMS. The voting equipment upgrade will not be proceeding during this capital plan. In September and November 2006, Council allocated \$3.0 million of this funding for the 311 Call Centre project.

In the 2006 Capital Budget Council approved \$1.0 million for the start-up of the ERDMS project and development of a business proposal. The balance of the funding necessary for Phase 1 of this project (\$706,000) would be provided from the 2007 Capital Budget(RTS #06612) considered by Council on April 19th, 2007. This brings the total funding available to \$1.706 million.

The total estimated cost of ERDMS is \$7.727 million. This report also seeks Council's intent to have further funding of \$6.021 million (\$2006) to complete phase two of the Project considered in planning for the 2009 - 2011 Capital Plan.

Implementation of ERDMS will result in additional operating costs totaling \$726,800 by 2012 with annual allocations as follows:

Year	Increment	Total operating
2009	\$48,500	\$48,500
2010	177,500	226,000
2011	424,600	650,600
2012 ongoing	76,200	726,800

Staff will report back to Council in November 2007 for award of contract and the final cost estimates.

PERSONNEL IMPLICATIONS

Implementation of the corporate wide ERDMS system will require the creation of a regular full time Project Manager position in the Information Technology Department at a cost of

\$105,000. This position will be required to provide the necessary management during the ERDMS implementation project, as well as to provide continuity in the planning, design and implementation of future upgrades and other related projects. The experience the Project Manager will gain during the project (e.g., of City departments, processes and technical infrastructure) will be highly beneficial to the long-term evolution and sustainability of the system. At the conclusion of the ERDMS project this project manager will be redeployed to manage other Information Technology projects and will be funded by those projects.

In addition to the Project Manager position, 10 temporary full time positions (5 for phase 1) will be required during the two phase implementation and stabilization phases of the project. The estimated total cost of the project team is \$3.2 million (\$0.9 million for phase 1), to be funded from the project budget. All positions will be classified by the General Manager of Human Resources, and filled in accordance with City procedures and collective agreements.

The ongoing maintenance of the new ERDMS will require the creation of two new positions, a Corporate Records Administrator in the City Clerks Department and a Systems Analyst in the Information Technology Department at the beginning of 2011.

The two new positions will be required to perform the following duties:

1. Business Analysis consisting of providing business support, managing changes to business application configuration and programs, managing the testing of problem fixes, configuration changes, enhancements and new functionality to applications and also provide training, on going support and guidance to the operating division.
2. Data Base Management consisting of managing access to highly sensitive and business critical data from all City departments and database administrative work.
3. Hardware/Software Support including system security administration, problem resolution for calls referred by the Help Desk, investigation and follow up on business application errors/problems with operating unit and vendors as required and management of technical assistance related to upgrading of business applications, including integration with other applications.

RISK ASSESSMENT

Risk Area	Risk Plan
Failure to adequately specify requirements at the beginning resulting in the need to change design during implementation.	Consult with the business to confirm their requirements and obtain their sign off before beginning the design and build of the system.
Failure to adequately communicate the goals and impacts of ERDMS	Conduct clear and open communications throughout the organization.
Other City projects will compete for resources to work on and implement the project.	Continue to work with the other project managers to schedule key milestones which do not conflict with those other projects.

The impact of changes resulting from the ERDMS is underestimated by the business.	Implement a sound change management strategy to ensure business expectations are understood and dealt with. Provide sufficient training to key users
Budget overrun	Ensure contracts with successful Vendors meet our financial parameters and actively manage the project and budget to avoid scope creep and other reasons for cost overruns.
Resources with required skill sets may be difficult to recruit.	Use internal resources as much as possible and work with Human Resources to recruit needed skills.

IMPLEMENTATION PLAN

Each business unit is being consulted to elicit its requirements for records and document management. These requirements will be included in the RFP to be issued in July 2007. Following the selection of software, and Council’s approval of costs, a Fit Gap Analysis will be performed. The objectives of this analysis are to design the system to meet the requirements of all the all business units in the City, and develop a configuration plan.

ERDMS will then be deployed in phases, deploying the system by business group. For each group two steps will be performed: Business Group Assessment & Business Group Implementation.

- The objective of the assessment will be to determine the readiness of the business group to move to an Electronic Records & Documents Management System, and to estimate the document conversion, training, and change management that the business group requires.
- The objective of the deployment is to execute the strategy approved in the business assessment. The technical implementation of ERDMS for the business group will be performed. In addition, the business unit staff will receive the communication, training, change management and assistance that they require to ensure that the business unit is ready to successfully use ERDMS.

The City Clerk’s office will be the pilot group. After the City Clerk’s office is successfully implemented, other Business Groups will be assessed and implemented. Priority will be given to the Departments that are in most need of a ERDM system. The proposed schedule is as follows:

Date	Activity	Approx. # of PCs implemented
Q2 2007	Develop/Issue RFP for equipment and implementation services.	

Q3 2007	Evaluate RFP proposals.	
Q4 2007	Council award of contract(s). Procure & install ERDMS equipment; Work with selected vendors to refine design. Configure ERDMS	
2008	Pilot deployment in City Clerks and other selected business units	285
2009	Deployment at selected business units	1,775
2010	Deployment at selected business units	2,270
2011	Deployment at balance of business units	670

CONCLUSION

Management of the City's records and document assets is an important priority. The recommendations in this report have been presented to internal stakeholders across all departments and boards. There is broad recognition that the implementation of an Electronic Records and Document Management System will provide increased efficiency, effectiveness, security and productivity. The Corporate Management Team has endorsed the need for the initiative.

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