Summary Briefing

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The Workspace of the Future…

WORKSPACE EDMONTON

Any place, time, device.

THE CITY OF Edmonton

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Executive Summary

Workspace Edmonton will provide the opportunity for the City of Edmonton (CoE) to make a fundamental shift in how the corporation uses computer based productivity tools.

The City is committed to establishing the foundation for a new set of office productivity and collaboration technologies for its business. By establishing this foundation the City is looking to realize cost avoidance while providing every CoE worker with a feature-rich productivity environment that is open, flexible, secure, sustainable and business enabling.

The future vision of the CoE information worker is to:

- Connect and have a City email address
- Access data from web-enabled devices anywhere at any time
- Share information across the corporation
- Communicate regardless of device type or physical location
- Have direct control over who can access shared data
- Have the freedom to choose the tools that enable their personal productivity.

The Workspace Edmonton program was created to launch a series of tools in support of this vision. This program will introduce a suite of new office productivity tools and technologies that significantly enhance collaboration and communication. It will also introduce new ways to access information from existing City applications.

In order to accomplish this, the proposal is to move away from a cost model where software is installed on each computer (the Client / Server Model) to a solution where the software is housed on servers in the CoE (Virtualization) or is housed on the Internet (the Cloud Model) and is available and accessed from any device when it is needed. This briefing paper looks at two projects that are required to achieve this vision: Desktop Productivity Tools (Cloud Model) and Central Software Systems (Virtualization).

This paper addresses each project separately as there are specific costs and benefits when implemented independently, as well as the potential for other costs and benefits when the projects are implemented together. The financial assessment identifies the potential cost avoidance for technology costs. The benefits summary identifies a number of potential benefits to business areas, primarily associated with increased efficiencies.

Cost avoidance is different than cost savings. Cost avoidance means the City of Edmonton IT Branch will deliver better IT services to more employees without the need for a future budget increase. Cost savings would imply future budget reductions. These benefits are technology based and do not include financial benefits associated with efficiencies that could be realized by the business units within the City.

While the components of Workspace Edmonton can be implemented independently, it has been recommended that the CoE, to maximize the $22.4 million cost avoidance over five-years, implement the combined solution option:

- Desktop Productivity Tools will include implementation of Google Apps for Business, combined with MS Office and SharePoint being maintained to meet business needs. Under this recommendation a target of 75 percent adoption rate would realize a cost avoidance of $9.2 million over five years.
- Central Software Systems (Virtualization) under this recommendation will target 75 percent utilization rate over five years to realize a cost avoidance of $4.6 million at the end of that time.
- Implement a Bring Your Own Device (BYOD) program and implement a turnkey service that would include a lightweight device bundled with maintenance services as an alternative to a traditional full desktop hardware leasing program. Under this recommendation, BYOD with a 30 percent employee uptake and a 20 percent adoption of the turnkey solution would achieve a cost avoidance of $8.6 million over five years.

Purpose and Benefits

The Workspace Edmonton Initiative objectives include:

- providing easy access to data and applications for all CoE employees, external business partners, and citizen organizations, from any web-enabled device;
- reducing CoE costs over time through service delivery efficiency and effectiveness improvements, productivity software licensing cost improvements and hardware and software management improvements;
- facilitating CoE staff productivity gains through the use of collaboration tools;
- maintaining streamlined communication platforms with high availability, comprehensive security, and simplified IT management;
- improving CoE agility by providing up-to-date technologies that are rapidly deployed as new functionality becomes available; and
- developing a repeatable, proven method for converting to new technology while ensuring that IT compatibility is maintained across the corporation.

Key Assumptions

- There will be ongoing commitment to implement and support the initiative at all levels of the organization.
- Only CoE employee and partner access needs were considered. Citizen / external business access is a future consideration that influenced the technology assessment and decisions. However, at this time the implementation of citizen/external business access is out of scope for these projects.
- The IT Collaboration Strategy was not fully defined in time for the assessment; however, the Strategy was considered as possible and known elements of the Strategy and are reflected in the technology assessment.
- A 75% utilization rate was estimated for Google Apps with the remaining 25% continuing to utilize the Microsoft Office suite.
- A 75% utilization rate was estimated for virtualization. This means that 75% of users will have Virtualized Desktops and Apps that will not require applications to be installed on their machines.

Desktop Productivity Tools

This project is focused on replacing core desktop productivity tools at the CoE; specifically, those tools used for email, and creating, editing, and reading documents, presentations and spreadsheets.

In 2010, Workspace Edmonton undertook a technical assessment of seven potential options for providing office productivity tools. These were:

1. On-premise delivery of Microsoft (MS) Office + SharePoint, with remote access via a remote access protocol (i.e. the current state)
2. MS Office + SharePoint + MS Business Productivity Online Services - Shared (BPOS-S)
3. Google Apps for Business environment
4. Google Apps baseline combined with MS Office / SharePoint where justified, based on business need
5. IBM LotusLive baseline combined with MS Office / SharePoint where justified
6. Cisco WebEx baseline combined with MS Office / SharePoint where justified
7. Oracle Open Office, Cloud Office + Beehive baseline combined with MS Office / SharePoint where justified

Based on the best functionality and financial fit, the recommended direction is to implement Google Apps for Business (formerly called Google App Premier Edition) while maintaining MS Office and SharePoint where required to meet business needs (option 4).

A financial model for the deployment of desktop productivity tools was developed. The model detailed two cost model scenarios over a 5-year period. The first calculated maintaining the status quo. The second calculated the costs associated with implementing Workspace Edmonton. The primary cost avoidance (and cost areas) are in the software licenses and service maintenance. The potential cost avoidance for the benefits is $9.2 million over five years in comparison to the status quo costs.

These numbers are based upon an estimated 75% of employees adopting Google with the remaining 25% continuing to utilize the Microsoft Office suite.

Benefits associated with business productivity (such as increased efficiency associated with collaboration) have not been factored into the financial benefits above; but are expected to occur and the City is identifying ways to capture these benefits during the project lifecycle.

The main non-financial benefits of the Workspace Edmonton Desktop Productivity tool set includes: increased collaboration and integration across the corporation; currency of technology solution (many mini upgrades); increased ability to attract staff by having the latest in technology and work styles; and increased mobility of workers.

The Desktop Productivity Tool project is associated with an additional Workspace Edmonton project called E-records. The intent of this project is to implement an integrated Electronic Records Management (E-Records) solution specifically for Google Apps for Business based on the requirements defined by the Office of the City Clerk.

The City understands the need for a strong focus on security and data management. A security assessment was completed that compared the Google Cloud Model to several other technology providers' similar systems as well as the City's current system. The security team conducting the assessment concluded that Google's cloud system poses a much-reduced risk as compared to the City's current system as well as other technology providers' systems.

Central Software Systems (Virtualization)

This project will allow the desktop and applications to be hosted and managed on centralized servers, thereby allowing the City to deploy or utilize 'thin client', more mobile devices. This project will allow users to work from any location and device, while increasing both accessibility and security.

In assessing the benefits of implementing a Central Software System, a five-year approach resulted in a cost avoidance of $4.6 million. These numbers are based on 75 percent adoption. This means that 75 percent of users will have Virtualized Desktops that will not require applications to be loaded on their machines.

In addition to the cost avoidance, there are a number of intangible benefits to virtualization including increased security, business continuity and employee satisfaction benefits associated with increased mobility and application availability. In addition, software licenses can be tracked more effectively. This may also result in financial savings as excess licenses are identified and the options of pool/shared licensing are realized. Potential software licensing financial savings were not included in the business case financial summary.

Combined Solution

Together the Desktop Productivity and the Central Software System have the potential for broader benefits for the CoE. The combined solution provides capabilities for City workers to work anywhere, anytime and on any device.

Given that work will now be done from servers, virtualization allows additional options for end user devices. Two options were reviewed: 1) Implement a BYOD program and 2) Implement a turnkey service that would include a lightweight device bundled with maintenance services as an alternative to a traditional full desktop hardware leasing program.

The combined solution provides the capability for the CoE to employ flexible approaches for its workforce, such as allowing employees to select the best device, tools and mobility option that fits their needs and preferences.

Key Risks

The following key risks (in no specific order) have been identified and mitigation plans put in place for each:

- Additional network upgrades that may be required for remote sites to benefit from the virtualization have not been included.
    - The Mitigation plan is to look at remote sites for both Virtualization and Desktop Productivity Tools and to work with IT Operations to assess and plan for gaps.
- A heterogeneous environment may result in user confusion. For example, confusion regarding where documents reside, which tool was used to create which document, difficulties with enterprise search and discovery, etc.
    - The Mitigation plan is to develop strategies to address changes with the way employees work and to provide enhanced search capabilities to address this.
- Risks associated with the BYOD, including data security risks associated with privately owned devices accessing CoE data and storing that data on the device.
    - These risks will be mitigated through the Mobility Statement of Direction, corporate policies regulating BYOD and mobile device use (CoE or privately supplied), encryption and support advice from IT, and to seek advice from Corporate Security, the City's Freedom of Information and Protection of Privacy office, City Auditor's office and the City's Law Branch.
- The change to a new technology will cause disruption in the business areas.
    - Mitigation strategy will include just-in-time training, on-line training and support, and training of administrative support staff to be in-branch support
- There may not be the willingness or the skills to adopt the new technology.
    - Mitigation strategy will include an Early Adopter program to help assess the most effective way to introduce the technology and expedite adoption, identifying and utilizing staff who already uses Google to be ambassadors, strong management support of initiative and exposure to success stories related to working more efficiently and effectively.

Benefits Summary

The Workspace Edmonton initiative has the potential to deliver $22.4 million in cost avoidance over a five-year period of operations if both the Desktop Productivity and Central Software Systems strategies are combined. Cost avoidance is different than cost savings. Cost avoidance means the City of Edmonton IT Branch will deliver better IT services to more employees without the need for a future budget increase. Cost savings would imply future budget reductions. These benefits are technology based and do not include financial benefits associated with efficiencies that could be realized by the business units within the City.

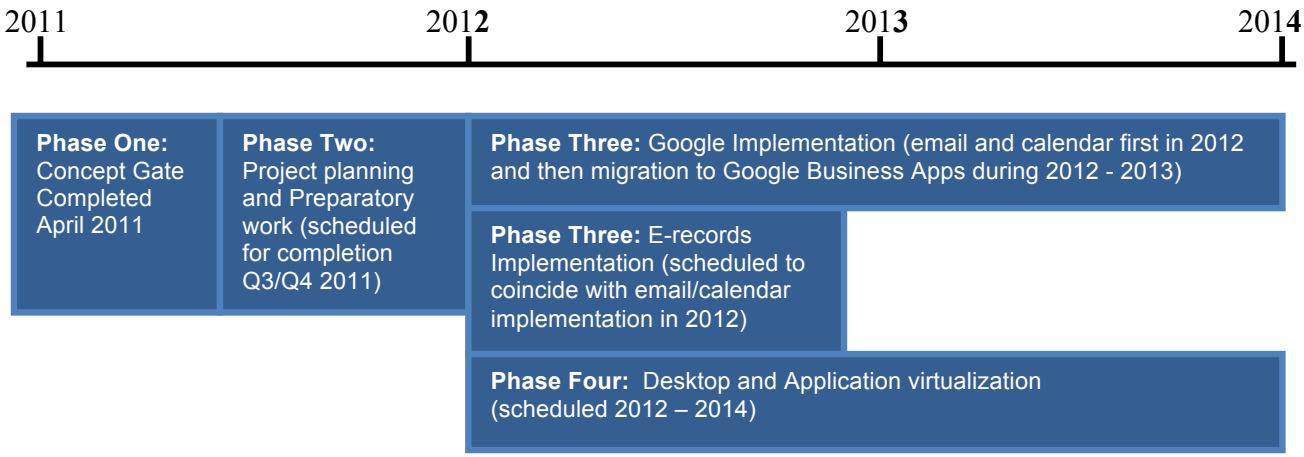
Financial Benefits Summary for each project individually				
	Desktop Productivity	Virtualization		Total Cost Avoidance
Five Year Totals	$9,200,000	$4,600,000		$13,800,000

The combined solution, with the mitigated corporate mobility risk, assumes a 30 percent employee uptake for BYOD and a 20 percent adoption of the turnkey solution would achieve a cost avoidance of $8.6 million over five years.

	Desktop Productivity	Virtualization	Combined	Total Cost Avoidance
Five Year Totals	$9,200,000	$4,600,000	$8,600,000	$22,400,000

These numbers represent net returns after costs and potential benefits have been considered. There is potential for business areas to realize additional financial benefits through mobile computing and productivity gains.

Implementation Approach



The CoE will be procuring the services of a Google 3rd party implementer as part of the Desktop Productivity Tool project. The implementer will provide subject matter expertise and leadership in the implementation of the Google tool set.

It is recognized that the implementation of the Google tool set is a significant change for CoE employees. A rigorous change and transition management strategy is being developed to help with this transition. The implementer will provide their skills and experience to help finalize the development of that strategy and its deployment.