

SPC ON FINANCE AND CORPORATE SERVICES

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AGENDA FOR THE REGULAR MEETING TO BE HELD ON WEDNESDAY, 2010 FEBRUARY 10 AT 9:30 A.M. ENGINEERING TRADITIONS COMMITTEE ROOM

THE AGENDA MATERIAL FOR THE 2010 FEBRUARY 10 REGULAR MEETING OF THE SPC ON FINANCE AND CORPORATE SERVICES SHOULD BE RETAINED FOR THE 2010 FEBRUARY 22 REGULAR MEETING OF COUNCIL AS IT WILL NOT BE REDISTRIBUTED.

CONFIRMATION OF THE AGENDA

CONFIRMATION OF THE MINUTES – 2010 JANUARY 13

NEW BUSINESS

FCS2010-05	RESPONSE TO NM2009-38 ACCESS TO CITY DATA AND SERVICES
FCS2010-06	2010 SUPPLEMENTARY PROPERTY ASSESSMENT AND TAX BYLAWS

RESPONSE TO NM2009-38 ACCESS TO CITY DATA AND SERVICES

SUMMARY/ISSUE

This report is in response to NM2009-38 Access to City Data and Services.

PREVIOUS COUNCIL DIRECTION

At its meeting of 2009 July 27, Council approved NM2009-38 Access to City Data and Services prepared by Alderman Ceci and Alderman Pincott which directed that Administration prepare a report outlining an overall strategy, and present it to the SPC on Finance and Corporate Services no later than 2009 December. Specifically, the report is to address:

- Identification of the cost and opportunities to make more of The City's data open and accessible while respecting privacy and security concerns, and ensuring that data is available through the use of open standards, interfaces and formats
- Development of an integrated information lifecycle management policy
- Increased opportunities for on-line citizen participation
- Increased City services on-line
- A policy on the use, procurement and support of open source technologies going forward
- Integration with webwave and egovernment programs
- An implementation schedule and any associated costs
- Triple Bottom Line Analysis (including risk analysis)

At the 2009 December 02 meeting of the SPC on Finance and Corporate Services, a deferral of the response to the 2010 February meeting was approved.

ADMINISTRATION RECOMMENDATIONS:

That the SPC on Finance and Corporate Services recommends that Council:

1. Direct Administration to pilot a public data catalog with the relaunch of City On-line expected in 2010 Q2; and
2. Direct Administration to report back to the SPC on Finance and Corporate Services with an update on egovernment strategy and roadmap by 2010 December.

INVESTIGATION

There is an expectation by Calgarians that The City will continue to provide new and innovative mechanisms for citizens to utilize government services and to participate in civic issues. In the most recent Web Measurements Program 2009 Telephone Survey conducted by The City it was identified that 89% of Calgarians support The City's efforts to enhance resources, information and services via the internet. Technology savvy, our citizens have new ways to receive and share information, and expect increasingly convenient access to City programs and services. New technologies and social networking paradigms are constantly being developed to use in the delivery of City services and to encourage citizen engagement.

The current webwave program which includes a refresh of both The City's myCity intranet site and calgary.ca is providing the foundation to move forward with an overall egovernment strategy. The areas that were identified in the NM2009-38 include a number of the strategies being researched as part of an overall egovernment strategy and roadmap.

The Attachment addresses each area identified in the Notice of Motion in more detail, however the key points of the response include:

RESPONSE TO NM2009-38 ACCESS TO CITY DATA AND SERVICES

- **Opportunities to make more open and accessible data**

There is a growing trend in Canadian municipalities to provide public access to civic data. The concept of providing the public with a catalog of data sets is being piloted in Vancouver, Toronto and most recently, Edmonton. The data provided is free from privacy and legal restrictions. Public are encouraged to use or repurpose the data in ways that would be beneficial to other citizens. Administration has completed an integrated risk assessment which will guide the implementation of Administration's recommendation to proceed with a pilot. A legal opinion has been prepared by the Law Department which will guide the strategy going forward. A rewrite of the CITYonline application is underway with a completion date expected within 2010 Q2. The application is being designed with the flexibility to pilot a public data catalog.

- **Information lifecycle management**

Information is one of The City of Calgary's most valuable assets. The growth of structured and unstructured data coupled with the increasing need to be able to identify, access and analyze data from a variety of sources is a challenge. Governance and discipline around managing information is critical to success in being able to provide quality data for both citizens and employees and to further The City's egovernment initiatives. The current Information Management program within IT establishes best practices, policies, standards and controls to ensure the accuracy, timeliness and accessibility of information.

- **Increased opportunities for on-line citizen participation**

Technology today provides a number of options for enhanced public consultation and citizen input. The Engage Resource Unit of Customer Service & Communications is

evaluating opportunities that will further enable online public consultations.

- **Increased City services on-line**

As directed through Council Priorities for the 2009-2011 business and budget cycle, a number of projects are complete or underway to move more City services on-line and accessible to citizens and business. It is anticipated this focus will continue with the refresh of The City's external website, calgary.ca. As more services are delivered on-line, a coordinated effort is required to ensure The City's on-line services provide a common face and satisfying user experience. Paying attention to underlying business process and information infrastructure is critical to further streamlining our on-line services to enhance connectivity and interaction between business units, as well as serve our citizens.

- **A policy on the procurement, use and support of open source**

Open source software refers to software in which the underlying source code is made available for use or modification as desired. It has typically been developed as a community collaboration effort and then distributed without cost. There are, however, costs that extend beyond the purchase price such as education, implementation and ongoing support that need to be considered part of the total cost of ownership for any solution. The City has had success in deploying open source solutions where it has made sense from a total cost of ownership, support and risk perspective. IT will develop a more formal strategy to ensure that qualified open source solutions are proactively included as part of solution evaluation, application lifecycle renewal and procurement processes. This will ensure that open source software is considered with other forms of proprietary software.

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- **Overall implementation schedule and costs of webwave program and egovernment programs**

The webwave program is a renewal of both the internal myCity intranet site and the external calgary.ca websites. myCity was launched in Q4 2009. The relaunch of calgary.ca is scheduled for Q2 2011. The new calgary.ca will provide the infrastructure for increased egovernment initiatives. Through development of an egovernment strategy and roadmap, Administration is preparing for many of the areas identified in NM2009-38 as a go forward plan aligned with the refresh of calgary.ca.

IMPLICATIONS

General

This report has been reviewed for alignment with The City of Calgary's Triple Bottom Line (TBL) Policy Framework. The following implications were identified:

Social

Providing increased access to City data and services allows enhanced opportunities for citizen participation and engagement. Web accessibility guidelines are being prepared as part of the calgary.ca refresh.

Environmental

The ability for citizens to access City services online and to provide input in to public issues online reduces the need for citizens to travel in order to be involved in civic issues.

Economic (External)

Minimal risk; any loss to third party opportunities could be balanced out by new and innovative opportunities arising from an open data initiative.

BUSINESS PLAN/BUDGET IMPLICATIONS

This response to NM2009-38 aligns with Council Priority 3.3 Make applicable City services including permitting, approvals and licensing available on-line. The response is aligned with the following strategies in the Corporate Services business plan:

S2.1 – Provide and promote convenient access to civic information and services with a focus on self-service.

S2.1.4 – Identify and implement opportunities for online citizen services

The recommendations have no impact to existing 2009-2011 business plan and budget. Existing funds are available through the CITYonline project (Program 814, 1.9 million). Communication and citizen engagement plan (estimated budget \$100,000.00) will be funded through the egovernment capital program (Program 744).

RISKS

An integrated risk assessment was conducted to analyze and determine management strategies for risks associated with making more of The City's data open and accessible while respecting privacy and security concerns. The results of the risk assessment are contained in the Attachment.

ATTACHMENT

Response to NM2009-38 Access to City Data and Services

Response to NM2009-38
Access to City Data and Services

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The following paper provides detail on responses to each area requested in NM2009-38 Access to City Data and Services.

This document does not address information managed by the Calgary Police Service or that of Civic Partners or other related authorities.

1. Making more of The City's data open and accessible

There is a growing movement in all levels of government to provide increased public access to government data. A number of Canadian municipalities have "open data" initiatives underway. These initiatives are undertaken for many reasons including enhancing citizen engagement, fostering innovation and improving service delivery.

Cities, states and the federal government are providing centralized data repositories or data catalogs. The type of datasets available for citizens are those that are not subject to privacy, security or legal limitations. Examples include locations and schedules of municipal facilities and services. By publishing datasets in open formats, governments invite the public to use the data in ways to benefit other citizens.

An open format means that the mode of presentation of the data is transparent and the specification describing how the data is formatted is publicly available. Open formats do not rely on any specific licence and can be implemented in open or proprietary software. Examples of some open formats are: XML, CSV, KML¹.

Benefits

There are many common reasons why governments embark on an open data initiative:

Citizens' right to access

Many open data supporters propose that government data belongs to the citizen. The foundation behind this statement being; public money was used to fund the work of gathering and interpreting the data so inevitably it should be available to the public.

Transparency/Engage citizens

Open data helps promote transparency in government by showing openness and accountability to citizens. Permitting citizens to see or repurpose government data gives insight into decision making as well as encouraging participation in public issues.

Foster and promote innovation both externally and internally

It is hoped that by making data available with minimum restrictions, citizens will find the data useful and will connect different data sets in new and interesting ways and that they will ultimately make the result available to other citizens who could benefit from it. The opportunity exists for the development of applications or products by citizens which

¹ Please refer to the Glossary of Terms for more information on these formats.

would assist other citizens or organizations. Internally, staff are able to access data from a variety of sources within the organization to assist them in their work.

Data quality

A valuable side effect of opening dataset to the public is that it may uncover errors which can then be communicated back to The City for investigation. This helps to improve the quality of the data for both The City and fellow citizens.

Other Municipalities

Recently both Vancouver and Toronto have made specific sets of data open to the public. Edmonton's City Council has also requested an exploration of the concept.

Vancouver

In 2009 May, Vancouver City Council approved a notice of motion entitled 'Open Data, Open Standards and Open Source' as an initial step in providing open data to their citizens. This was followed by the 2009 September launch of their open data portal data.vancouver.ca. Since that time they have actively pursued citizen participation through initiatives such as "Hack-a-thons" which encourage non-City developers to get together to collaborate on applications and 'mashups' of data supplied by The City.

The Vancouver website provides predominantly geospatial data. Among the datasets made available are:

- Geographic contour data
- Voting division boundaries including municipal election results
- Garbage collection schedules
- Name, address, latitude and longitude for fire halls, community centres, libraries, parks, schools, street lights and fountains
- Extensive property data, street centerline data, zoning and city boundaries

Toronto

The City of Toronto launched its site for open data on 2009 November. Included in the Toronto data catalog are:

- Municipal address points
- Listing of by-law infractions for apartment standards
- Boundaries of business improvement areas
- Linear representations of streets, walkways, rivers, railways, highways and administrative boundaries
- Listing of festivals and events taking place in the City
- Locations and names for parks and places of worship among other points of interest

As part of launching their sites to the general public, both The City of Vancouver and The City of Toronto invited citizens to “mash up” datasets in interesting and innovative ways and to make those applications available to everyone on the respective city websites. This interaction with citizens involved formulation of a concept to the actual development of a ‘mash-up’ and resulted in some interesting ideas and applications being developed. An example of this is the Vantrash application.

Vantrash is an example of what citizens can do with open data. It is a simple application that takes the garbage collection zones dataset from the City of Vancouver and allows people to enter their address and have a reminder email sent to them when it is their trash collection day.

United States

A number of U.S. cities, such as Washington D.C., New York and San Francisco, have pursued the idea of application showcases where they actively promote the development and sharing of applications that have been created using the datasets made available from their data catalogues. These cities actively encourage citizens to develop applications for the benefit of all citizens.

The City of Calgary – Current state

Access Solutions, a division of Land Information and Mapping, (LIM) facilitates the management and marketing of The City of Calgary’s corporate data and intellectual property.

The City of Calgary has two administrative policies with respect to external data access; Intellectual Property Management and External Data Access Management. Both of these policies are currently under review.

The two policies recognize data as a corporate asset to ensure that citizens of Calgary have full, fair and efficient access to and receive the appropriate value from these assets. Therefore, all City intellectual property, including geospatial mapping data is considered a corporate asset with value. Licenses specifying terms of use are administered to facilitate the third party use of these assets. The application of fees are a function of the desired cost recovery approach which can range from incremental to full cost or fair market value of the data. Data may also be licensed without charging a fee. Licensing has the principal advantage of allowing for better management of data use, redistribution and risk mitigation. Ownership is retained by The City.

The CITYonline and The Calgary Online Store provide licensed commercial customers and citizens with internet access to The City of Calgary property assessment, property tax, planning, permit, mapping and other corporate information generating approximately \$3M in annual revenues. The creation and provision of custom geospatial products for companies such as Enmax, Shaw, Atco and Telus is handled on a one-off basis and provides an additional \$500K annually. Commercial clients are charged customization and dissemination costs. City of Calgary vendors (those providing contract services to

the Corporation) are provided with the data that they require to provide service to The City at no cost. This data is also provisioned under license. Data is also provided free of charge to community organizations and students on a request and case- by-case basis.

The Urban Alliance, a research arrangement between The City of Calgary and the University of Calgary, was created to better coordinate transfer of leading research between The City and the University, integrating research in nine key areas to benefit the citizens of Calgary. Terms of this alliance, provide for the sharing of The City of Calgary data with the University of Calgary.

The City's licenses or terms of use agreements vary and are tailored toward the type of data being accessed, its value as intellectual property and the related cost recovery model for that data. Terms of use agreements detail the terms and conditions under which customers may access and use the data. They will generally include licensing information, copyright information and a disclaimer limiting liability.

Alberta's Freedom of Information and Protection of Privacy Act (FOIP Act) aims to strike a balance between the public's right to know and the individual's right to privacy. As a municipality, The City of Calgary is subject to the FOIP Act when collecting, using and disclosing personal information. The City has well-established processes for dealing with FOIP requests. These processes are also applicable with respect to any access to data.

Integrated Risk Assessment Summary Findings

A risk assessment was conducted using The City's Integrated Risk Management (IRM) process to analyze and determine management strategies for risks associated with making more of The City's data open and accessible while respecting privacy and security concerns. The team engaged in the IRM process included representatives from Information Technology, Law, City Clerk's Office, Customer Service and Communication, and Land Information and Mapping. This risk assessment included a Triple Bottom Line (TBL) analysis, which identified no significant risks.

Cultural/Policy, Demand, and Information Risk were identified as areas of high risk:

- Data silos perpetuated by business-centric solutions inhibit data sharing between business units internally, making it difficult to present one "corporate" view of data to citizens externally;
- Business units may develop their own open data offerings, hindering the provision of a corporate-wide view of data provided to citizens via a single point of entry
- Data governance and stewardship, including roles and responsibilities not currently defined at a corporate level

- Unanticipated increase in demand for public datasets stresses our resource capacity (both staffing or infrastructure)
- Obsolete datasets, and release of irrelevant, inaccurate data reflects poorly on The City's reputation
- Personal inconvenience or harm to a citizen if inaccurate data is used to make decisions

Reputation/Fraud was identified as an area of medium risk:

- Third party misrepresents the data or uses it for unlawful purposes
- Public perception that The City endorses the accuracy of information provided in a third party application
- Third party uses the data to represent themselves as a City of Calgary employee

Compliance/Legal was also identified as an area of medium risk. It was determined that compliance and legal risks could be managed operationally by the appropriate staff.

Risks identified were:

- Release of data that allows identification of an individual
- Release of data not owned or licensed to The City of Calgary
- Release of protected, confidential or highly restricted data

Financial risk was considered to be an area of low risk that was acceptable due to the amount of the income that could potentially be lost in comparison to The City's total revenues. The risk identified was:

- Annual revenue loss of approximately \$3.0M in licensing fees

Several management strategies are recommended to manage the identified risks:

- Develop a corporate data management approach that (1) recognizes all City of Calgary data and information as a corporate asset and (2) provides guidelines and information regarding governance, access, use, distribution and reporting of corporate data, both internally (including across business units) and externally, including the current review of the Intellectual Property and External Data Access Management policies.
- Develop an open data strategy and framework (terms of use, public data catalogue, citizen forum/feedback mechanism, monitoring & metrics, infrastructure assessment & plan, staffing/sustainment model)
- Ensure internal processes are in place to ensure the appropriate vetting and approvals, relative to policy and legislation, occur before any public release of a data set.
- Implement slowly with a phased approach.
- Develop a communications/marketing Strategy

The Triple Bottom Line risk analysis findings indicated minimal economic impact resulting from a public data initiative, with third party lost opportunities being balanced by innovative opportunities arising from the initiative. No environmental impact was found. Social impact relating to The City's ability to adequately provide data in a manner acceptable to those citizens with physical disabilities, such as vision problems, was identified as being addressed by development of Web Accessibility Guidelines being prepared by The City's webwave program.

Public Data Catalog Opportunities

Through The City's internet site, CITYonline and the Calgary Online Store, there is a vast amount of data and information available to the general public.

It is clear from the Integrated Risk Management assessment and subsequent analysis, that should The City of Calgary choose to implement a public data catalog, a slow, phased approach is recommended as one of the management strategies to minimize risk. The City of Vancouver, The City of Toronto and recently The City of Edmonton have provided excellent examples of how to get started.

The management strategies identified through the risk analysis can be initiated concurrently: the development of the corporate data management approach and the open data strategy and framework.

The City can begin its 'soft launch' approach by determining the initial data offerings. The easiest, least contentious way to determine which datasets to target for initial release is to examine The City of Calgary internet site and choose data that is already publicly available, but not in a reusable format.

Administration will engage interested citizens in recommending both the types of data sets and formats that would be most useful.

One of the benefits of a public data catalog is that it enables technically savvy citizens to repurpose and potentially integrate City datasets into applications that provide value to other citizens. In order for this to be feasible, data must be provided in commonly accepted, open standard formats such as XML² and KML³.

There are several electronic map offerings that provide a very useful service to citizens. Some of these maps are available for download in their entirety in PDF format while other maps are interactive.

One such example is the Interactive Facilities & Service Locator where users can narrow the scope of their search by address, facility or community. They can use this application online to find such things as parks, hospitals, parking, recycle depots and schools. This is a prime example of data that would be more useful, if it was also available in other formats such as KML³ or XML³ files. This data could then be

² Please refer to Glossary of Terms for more information

combined (a mashup³) with other datasets such as Transit schedules and be repurposed for mobile devices.

Other examples of geographical information currently on The City's internet site that would be useful to citizens are recycling depot locations, parking lot locations, bike and pathway maps, Calgary Transit maps, and so on. These datasets offer great potential for repurposing if they can be provided in open standard formats.

There are documents on The City's website that are available in Word or PDF (human-readable) format only. Many of these documents have tabular data embedded within them. The data embedded within the document may be very useful, but the format is not conducive to reuse. If this data was available in a downloadable, tabular format as well as Word or PDF, it would enable repurposing of the data, which could, in turn, be provide added value to citizens.

All these examples would be good candidates to target in the first round of datasets to be made available in a public data catalog.

Costs

A rewrite of the CITYonline application is underway with a completion date expected for the summer of 2010. The new CITYonline will be a dynamic application that will provide users, both inside and outside of the Corporation, with enhanced, integrated access to a wide range of digital data products and online services ranging from downloadable neighbourhood maps and photographs to geospatial mapping data, through engineering and design specifications manuals, to online Assessment Review Board appeals applications and course registrations for various business units.

The application is being designed to have the flexibility to house a public data catalog.

Resources for communication and citizen engagement around a public data catalog can be funded through existing egovernment program budget for 2010 and 2011. Estimated budget of \$100,000. Based on demand, any additional resource requirements will be identified for the 2012 to 2014 business cycle.

2. Information Lifecycle Management Policy

Through the establishment of the Information Management Program, The City of Calgary has recognized that information is a valuable asset of the organization and requires management and protection. Like any asset, it is important that The City understand the value of the information it holds, the lifecycles of that information and to treat it in accordance with its value.

Information Lifecycle Management is an ongoing business practice and service management strategy for ensuring information management costs are balanced and aligned with business priorities and the changing business value of the information through the use of policies, practices, processes, services and tools.

Although descriptions of lifecycle processes may vary according to specific perspectives, most models include the receipt, creation, classification, storage/maintenance, access/retrieval, disposition and archiving of information as separate but linked steps. Ideally all of these activities are managed, thereby assuring quality and adherence to the organization's policies, procedures and guidelines.

While The City of Calgary is not without a degree of information lifecycle management as evidenced by the Corporate Records program, a formally adopted corporate Information Lifecycle Management program with commonly understood goals and benefits will serve the Corporation and in turn support the "Access to City Data and Services" motion in Council.

In general the following outcomes are sought over time through Information Lifecycle Management:

- Policies and procedures governing the information lifecycle are established and communicated corporately
- Information is up-to-date and relevant
- Information is accurate and trustworthy
- Information is accessible, based on prescribed security permissions
- Information is classified according to its business value
- Improved compliance with legislation and regulatory requirements with respect to records retention
- Containment of information management and storage costs
- Improved application and database performance

The Information Management Program – is designed to to leverage The City of Calgary information assets to support sound business decisions by establishing corporate Information Management best practices, policies, standards and controls that contribute to the accuracy, timeliness and accessibility of the information asset. Some of the Information Management sub programs are:

- Information Lifecycle Management Program – aligning the needs of both the business and IT by providing enterprise-wide policies, processes, practices and tools for dynamically storing, managing and retrieving information based on the changing value of the information to the consumer i.e. the citizen or internal City staff
- Data Governance Program – Designed to resolve ambiguity, manage short and long-range goals, and mitigates conflict within the corporation in all matters relating to data, through the use of people, policy, and process.
- Master Data Management Program –The goal of this program is to streamline data sharing and provide everyone in the corporation and, by extension, the citizens who would utilize a public data catalog, with a single, consistent view of critical data by using both technology and data governance techniques.
- Metadata Management Program – aimed at increasing the value of City information assets, improving information search, discovery and retrieval.

The City currently has several policies and procedures that can be leveraged to assist with an overarching Information Management Lifecycle policy, some of which are;

- Records Management Bylaw 53M99
- Corporate Records Management Program policies, processes and procedures
- Intellectual Property Management Policy
- External Data Access Management Policy
- Information Security, Classification and Control Policy

These policies, working in concert with the Information Management program will provide a solid foundation to support making more of The City's data open and accessible.

3. Increased opportunities for online citizen participation

Technology today provides a number of options for enhanced/improved public consultation and citizen input. There is an expectation that The City's plans and decisions should not only be communicated to citizens and business, but that stakeholder's views and opinions should be gathered and considered when developing plans and making decisions. New Web 2.0 technologies provide methods for on-going dialogue between stakeholders and The City, as well as enable citizen-to-citizen conversations on City plans.

In recent months, a Calgary City News Blog was released with a number of informational videos accessible via YouTube, Vimeo and Yahoo on such topics as the Blue Cart recycling program, Plan It, Secondary Suites grant program. The blog has a number of social networking features including Flickr, events on Facebook, The City's Twitter feed.

The City's engage! Policy states that "The City of Calgary recognizes that decisions are improved by engaging citizens and other stakeholder groups where appropriate and is committed to transparent and inclusive processes that are responsive and accountable, and within the Corporation's ability to finance and resource. "

The Engage Resource Unit of Customer Service & Communications, is evaluating opportunities that will further enable online public consultations. The ability for easily convening online townhalls, utilizing citizen panels, and hosting public information forums, will allow citizens and stakeholders to provide meaningful input into civic affairs, in multiple mediums with flexibility to meet their time schedules, and travel abilities.

The concept of a public information or engagement "portal" is being scoped, through the Webwave program The concept is to enable a single point of entry for online

public engagement, incorporating information about past public engagement projects, a geospatial view of current projects and the tools to facilitate public participation and engagement in current projects.

4. Increased City Services online

Calgary has a strong web presence, offering over four hundred products and services to citizens, businesses and visitors.

- Since the initial launch of calgary.ca, The City has moved close to 30 business processes online.
- The City has over 50 interactive services on calgary.ca including 311 customer service requests, construction detours, transit scheduling information, viewing traffic cameras, etc.
- The public has the ability to purchase multiple services and products such as pet licenses, Transit passes, recreation course registrations, engineering and design specifications manuals etc.
- The portal offers over 16,000 information rich pages, including downloadable documents and forms.

Planned for 2009-2011 Budget Cycle

City of Calgary business units have identified numerous projects scheduled for implementation during the 2009-2011 business plan and budget cycle that help shift more service delivery for citizens and business online.

Some of the key initiatives include:

Calgary Infrastructure - Launched in June, the calgaryinfrastructure.ca website features an interactive map that identifies most of the 600 capital projects funded by The City's approved 2009 – 2013 capital budget. Project details, construction schedule and progress status, sources of funding and project costs can all be tracked via the mapping tool. In some instances photos and videos of construction progress are also available.

Calgary AfterSchool site, was recently launched, that allows citizens to search for after school programs by proximity to schools, address or program. Phase 2 is in planning stages.

Cemeteries management system will give the public ability to search for family and friends interment locations through terminals at the cemeteries.

Advanced transit passenger information system will provide real time information to customers on incidents and schedules.

Online Applications System and Information Services (OASIS) in Planning, Development and Assessment, in response to Council Priority 3.3, is a program to move many existing citizen services online including:

- Help citizens and customers in understanding bylaws pertaining to land, development and building
- Allow citizens and customers to complete applications for Business Licences
- Streamline Trade Permits to enable payment online
- Enable and encourage citizens and customers to interact online with assessment processes

As more services are delivered online, a more coordinated effort is required to ensure The City's online services provide a common face and satisfying user experience. Paying attention to the underlying information infrastructure is critical to further streamlining our online services to enhance connectivity and interaction between business units, as well as serve our citizens. To this end, as part of the overall egovernment strategy, Administration is developing a work plan to leverage shared infrastructure across all online business processes.

Some of the undertakings to be considered are:

- Robust search engine (for both internal and external users)
- An Identity Management system that manages individual identities (both internal and external). Identity management provides the foundation for enhanced citizen self service.
- Ensure that all payment process / electronic funds transfer are Payment Card Industry compliant
- Enhance online forms and processes (i.e. routing, electronic signatures, aligning with databases for self-populating fields, etc.)
- eBilling opportunities for City services

Information and business process management initiatives are a fundamental requirement in the move from traditional government service delivery to egovernment services.

5. A policy on the use, procurement and support of open source technologies going forward

Definition

Open source software refers to software in which the underlying source code is made available for use or modification as desired. It is usually developed as a community collaboration effort and is then distributed without cost. This implies a degree of accessibility to the code and unrestricted use with the ability to modify the source with no legal consequences. Mainstream open source systems are typically commercialized through the sale of software support and implementation services.

Open source software rights, in almost all cases, are protected by software license agreements that are designed to protect the organization that is releasing the software as well as the users of the software.

Proprietary software which essentially refers to software for which the source code is not accessible or copyable and that is manufactured exclusively by an owner. This owner retains intellectual property rights protected by a patent, copyright or similar legal agreement.

Although open source software may be distributed free of charge, there are costs that extend beyond the purchase price such as education, implementation and ongoing support that need to be considered in the total cost of ownership for this type of solution.

Current State

The City has made some tactical open source decisions where it has made sense from a total cost of ownership, support and risk perspective. These decisions have typically been in the area of infrastructure as opposed to the business application space. Examples include the following:

- Open source components are used in mission critical and high use areas such as web servers, application servers, security solutions, network monitoring tools and in enabling many services such as file sharing and patch management.
- Open source software components are included as part of larger systems that users interact with daily, such as the MySQL database management system which supports the Openfind search engine for the WaterNet system. Users are largely unaware that they are using an open source software solution.
- The open source operating system Linux is used as a host for all City Oracle Databases

There are 161 physical and 80 virtual servers running the Red Hat operating system which is based on the Linux Open Source operating system. Current success in the adoption of open source software has come as a result of The City's sound decision making approach. The creation of a more formal IT strategy will ensure that The City continues to move in a strategic direction with regards to the adoption of open source software.

For a solution to be brought to the table as a consideration it must be backed by an external vendor who is responding to a request or by an individual with knowledge of a particular open source solution. The current process favours organizations that have sales forces that can write responses to Request For Proposals and legal departments to negotiate contracts. Some of the more established open source software organizations have put traditional organizational frameworks in place so they are better able to respond. Adopting an IT strategy to have open source software proactively considered as part of both the solution evaluation, application life cycle renewal and

procurement process will help ensure that main stream open source software is considered with other forms of proprietary software.

Benefits

There are many benefits to the use of open source software within The City:

- Create competitive pressure on incumbent vendors.
- Encourage innovation inside The City IT department as well as externally
- Provide an opportunity to enhance collaboration with other municipalities and levels of government.
- The collaborative nature of open source allows a community of developers to work for the betterment of the solution.
- If desired, the opportunity exists to modify the source code.
- Availability of the source code helps to mitigate the risk of a software developer changing the business model or going out of business.
- Paid support is available for most mainstream open source applications which can provide support and enhancements.

Risks

Some of the potential risks involved with open source software are:

- Managing a variety of licensing agreements and intellectual property in both the development and use context, understanding any implications that may arise from specific rights or obligations contained in the license.
- Not having the appropriate skill sets in place to manage the use, development and support of open source software.
- Code enhancements and fixes for open source software may not always be timely and may not come at all depending on the developer community built around the project.
- Although rare for main stream open source software, there is the possibility that a project may become abandoned completely
- Recent developments in the technology industry have seen several popular open source solutions being purchased by for profit companies that are primarily known for proprietary software. This could result in open source software being re-licensed with a more restrictive license.
- Adoption of an open source software strategy could challenge adherence to existing City procurement policy

The following recommendations would form the development of an IT strategy regarding the use and procurement of open source solutions:

- The City will actively and fairly consider open source software solutions alongside proprietary solutions in IT procurement.

- Procurement decisions will continue to be made based on the total cost of ownership, best requirements fit and risk profile, no matter the sourcing of the solution. This may involve an open source software solution, a proprietary solution or a combination of both. Decisions in this regard should be made on a case by case basis.
- The City will be open to the idea of sharing in-house developed applications with other municipalities through the adoption of a licence that will protect our intellectual property and legal rights while still making the shared code of value to other organizations.
- As part of determining best requirements fit, there is a need to ensure that interoperability of systems is provided and maintained. This requires adherence to The City's Enterprise Architecture framework.
- Adoption of any open source solution will be required to follow a risk analysis process that addresses solutions on a case-by-case basis.

In order to implement these guidelines on open source, IT would need to take the following steps.

- Strengthen skills, experience and capabilities within IT around all aspects of open source software. This will include educating IT and customers about the availability of open source software.
- Be proactive in considering qualified open source software solution as part of the software evaluation, application lifecycle renewal and procurement processes
- Work internally to ensure there are no unnecessary procedural barriers that may exist that limit the adoption of open source software

6. Integration with webwave and egovernment programs, implementation schedule and costs

The webwave program is a renewal of both the internal myCity intranet and external calgary.ca websites at The City from a technical, structural, functional and visual standpoint.

The redesigned intranet (myCity) was launched 2009 October 30th. The refresh of calgary.ca is scheduled to be completed by Q1 2011.

The new calgary.ca will provide the infrastructure for increased egovernment initiatives.

ID	TASK NAME	Q4 09	Q1 10	Q2 10	Q3 10	Q4 10	Q1 11	Q2 11
1	Webwave							
2	My City	Completed Q4 2009						
3	Calgary.ca	Phase1 Requirements Q2 – 2010					Phase 2 / Implement Q1 - 2011	
4	egovernment							
5	Strategy and Roadmap					Development Phase Q3 - 2010	Future egovernment Activity	

7. Glossary of Terms

Term	Definition
CSV (Comma-Separated Values)	A common and simple file format, where each line in the CSV file corresponds to a row in the table. Within a line, fields are separated by commas, each field belonging to one table column. This format is often used for moving tabular data between two different computer programs, for example between a database program and a spreadsheet program.
Data	Data are numbers, words, images, etc., accepted as they stand, i.e. 'raw' form.
Data Governance	Source: datagovernance.com <i>"Data Governance is a system of decision rights and accountabilities for information-related processes, executed according to agreed-upon models which describe who can take what actions with what information, and when, under what circumstances, using what method."</i> Can be thought of as the 'rules of engagement' when managing data.
Data Steward	Someone assigned the responsibility of safeguarding the data asset according to the policies and procedures established by the Data Governance body.
Dataset	A collection of data usually presented in tabular form where each column represents a particular variable and each row corresponds to a given member of the data set in question.
Geographic Information System (GIS)	A system for creating, storing, analyzing and managing spatial data and associated attributes.
Identity Management (IdM)	Identity Management manages both authentication (am I who I say I am), and authorization (am I allowed to do what I am asking to do).
Information	Source: http://en.wikipedia.org/wiki/Information <i>In terms of data, it can be defined as a collection of facts from which conclusions may be drawn. Information is the result of processing, manipulating and organizing data in a way that adds to the knowledge of the person receiving it.</i>

Information Lifecycle Management(ILM)	ILM is an ongoing business practice and service management strategy for ensuring information management costs are balanced and aligned with business priorities and the changing business value of the information through the use of policies, practices, processes, services and tools.
Information Management(IM)	The leveraging of disciplines, technologies, and best practices to ensure the accuracy, accessibility, and integrity of information assets.
Intellectual Property(IP)	Source: Intellectual Property Management Policy # IM-LIM-001 <i>Any data, software, ideas, processes, trade secrets, or creation conceived and possibly built or implemented to which The City of Calgary has a right of ownership and regards as a corporate asset.</i>
KML (Keyhole Markup Language)	A fee-free open standard. XML-based and specifies a set of features for display in Google Earth, Maps and Mobile, or any other 3D earth browser (geobrowser) implementing the KML encoding. KML is an international standard of the Open Geospatial Consortium.
Mash-up	A web service or software tool that combines two or more tools to create a whole new service. The term is also used to describe user generated remixes of content from different sources.
Master Data	Master Data is persistent, non-transactional data that defines a business item for which there is an agreed upon view across the organization. Master data items are the critical 'nouns' of the business. Examples of some very well-understood and easily identified master-data items are 'customer', 'product', 'location', 'employee', and 'asset'. It is often used by several functional groups.
Master Data Management(MDM)	Master Data Management aims to achieve a "single version of the truth", providing a single trusted source for master data that is shared throughout the corporation. There are two primary objectives for master data management: <ul style="list-style-type: none"> • Integrate the multiple variations of the same master data items into a single source of truth and then, • Enable business applications to share that single view of the master data within the corporation and by extension, enable citizens to access that same corporate-wide view of data when it is made available to the public.

Metadata	Traditionally known as “data about data”, Metadata may include descriptive information about the context, quality and condition, or characteristics of the data, e.g. date created, date modified, data steward, data type etc. It aids in clarifying and finding data.
Open Format	Open Formats refers to storing digital information in a format that can be used and implemented by anyone. This means that the mode of presentation of the data is transparent and the specification describing how the data is formatted is publicly available. Specifications of this type are usually maintained by a standards body. Open formats do not rely on any specific license and can be implemented in open or proprietary software. Examples of some open formats are: <ul style="list-style-type: none"> - XML - (Extensible Markup Language) - CSV - (Comma Separated Values) - KML – (Keyhole Markup Language)
RSS	Source: http://en.wikipedia.org/wiki/RSS <i>Most commonly translated as "Really Simple Syndication" but sometimes "Rich Site Summary" is a family of web feed formats used to publish frequently updated works.</i>
XML (Extensible Markup Language)	A fee-free open standard. It utilizes a textual data format and is widely used for the representation of arbitrary data structure such as web services.

2010 SUPPLEMENTARY PROPERTY ASSESSMENT AND TAX BYLAWS

SUMMARY/ISSUE

Council's approval is required through bylaw to authorize supplementary property assessments and subsequent supplementary property tax levies for 2010.

- properties which have been improved or occupied in the current taxation year; or
- manufactured homes that have moved into a manufactured home community in the current taxation year.

PREVIOUS COUNCIL DIRECTION/POLICY

Council has passed a similar bylaw each year since 1995 authorizing the preparation and taxation of supplementary property assessments.

When supplementary property assessments are prepared under this bylaw, they must be prorated to reflect the number of months during which the improvement or manufactured home is complete, occupied, located in the municipality or in operation.

ADMINISTRATION RECOMMENDATIONS:

That the SPC on Finance and Corporate Services recommends that:

1. Administration prepare the proposed bylaws as per the text for discussion contained in Attachment 1 and Attachment 2; and
2. The proposed bylaws are attached to this report prior to being forwarded to Council; and
3. Council give three readings to the proposed 2010 Supplementary Property Assessment Bylaw and the proposed 2010 Supplementary Property Tax Bylaw.

Section 369 of the MGA provides that Council must also pass a Supplementary Property Tax Bylaw once a Supplementary Property Assessment Bylaw has been passed by Council. A Supplementary Property Tax Bylaw is only applicable to the year in which it is passed.

The Supplementary Property Tax Bylaw authorizes supplementary property taxes to be imposed on properties for which supplementary property assessments have been prepared. Tax rates imposed on supplementary property assessments will be the same as the tax rates set out under the Property Tax Bylaw which is expected to be passed by Council later this spring.

INVESTIGATION

Property assessments are used as the basis for The City of Calgary's municipal property tax. Each individual property assessment is required to reflect the characteristics and physical condition of property on December 31 of the year prior to the year in which a property tax is imposed.

Section 313 of the Municipal Government Act (MGA) provides that Council may pass a Supplementary Property Assessment Bylaw that authorizes the preparation of supplementary property assessments for the purpose of generating municipal taxation revenues in the current taxation year on:

IMPLICATIONS

General

Failure to approve these bylaws prior to 2010 May 01 will result in no supplementary assessment notices being mailed in 2010 and a significant loss of revenue to the Corporation.

Social

No implications were identified.

2010 SUPPLEMENTARY PROPERTY ASSESSMENT AND TAX BYLAWS

Environmental

No implications were identified.

Economic (External)

No implications were identified.

BUSINESS PLAN/BUDGET IMPLICATIONS

Supplementary property assessments were processed for 4,800 properties for the 2009 taxation year with property tax revenue amounting to approximately \$5.8 million for the municipal portion and \$3.1 million for the provincial portion, for a total of \$8.9 million.

The expected revenues generated from the supplementary assessments have been forecasted and included in The City of Calgary's 2010 business plan and budget coordination.

RISKS

The Supplementary Property Assessment bylaw must be passed prior to 2010 May 01 or the municipality will lose its ability to collect this revenue.

ATTACHMENTS

1. Proposed Wording for a 2010 Bylaw for Supplementary Property Assessment
2. Proposed Wording for a 2010 Bylaw for Supplementary Property Tax

**PROPOSED WORDING FOR THE 2010 SUPPLEMENTARY PROPERTY
ASSESSMENT BYLAW IN THE CITY OF CALGARY**

WHEREAS Section 313 of the *Municipal Government Act*, R.S.A. 2000, c. M-26 ("the Act") provides that the council of a municipality must pass a supplementary assessment bylaw to authorize the preparation of supplementary assessments in respect of improvements for the purpose of imposing a tax in the same year;

AND WHEREAS Section 313 of the Act provides further that a supplementary assessment bylaw or any amendment to it applies to the year in which it is passed, only if it is passed before May 1 of that year, and must not authorize assessments to be prepared for linear property;

AND WHEREAS The City of Calgary wishes to pass a supplementary assessment bylaw to provide for the preparation of supplementary assessments in respect of improvements for the taxation year 2010;

NOW THEREFORE THE COUNCIL OF THE CITY OF CALGARY
ENACTS AS FOLLOWS:

1. This Bylaw may be cited as "The 2010 Supplementary Property Assessment Bylaw".
2. In this Bylaw,
 - (a) "Act" means the *Municipal Government Act*, R.S.A. 2000, c. M-26;
 - (b) "Assessor" means a person appointed by a municipality as defined in Section 284 of the Act;
 - (c) "City of Calgary" means The City of Calgary, a municipal corporation of the Province of Alberta and, where the context so requires, means the geographical area within the boundaries of the City of Calgary;
 - (d) "Council" has the same meaning as in Section 1 of the Act;
 - (e) "Improvement" has the same meaning as in Section 284 of the Act;
 - (f) "Linear Property" has the same meaning as in Section 284 of the Act;

(g) "Supplementary Assessment" means an assessment made pursuant to this Bylaw and Part 9, Division 4 of the Act.

3. Supplementary Assessments shall be prepared in 2010 for the purpose of imposing a tax in the same year under Part 10 of the Act.
4. Subject to the provisions of Section 314 of the Act, the Assessor must prepare Supplementary Assessments:
 - (1) for machinery and equipment used in manufacturing and processing, if those Improvements are completed in 2010 or begin to operate in 2010;
 - (2) for all other Improvements, if they are completed in 2010, are occupied during all or any part of 2010, or are moved into the City of Calgary during 2010 and will not be taxed in the same year by another municipality; and
 - (3) in the same manner as the assessments are prepared under Part 9, Division 1 of the Act, but must pro-rate the Supplementary Assessments to reflect only the number of months during which the Improvement is completed, occupied, located in the City of Calgary or in operation, including the whole of the first month in which the Improvement was completed, was occupied, was moved into the City of Calgary or began to operate.
5. The Assessor may prepare a Supplementary Assessment for a designated manufactured home that is moved into the City of Calgary during the year in which it is to be taxed under Part 10 despite the fact that the designated manufactured home will be taxed in that year by another municipality.
6. A supplementary assessment roll shall be prepared in accordance with Section 315 of the Act.
7.
 - (1) A supplementary assessment notice shall be prepared in accordance with Section 316 of the Act for every assessed Improvement shown on the supplementary assessment roll.
 - (2) The supplementary assessment notices shall be sent in accordance with Section 316 of the Act to the assessed persons.
8. This Bylaw comes into force on the date it is passed.

**PROPOSED WORDING FOR THE 2010 SUPPLEMENTARY PROPERTY TAX
BYLAW IN THE CITY OF CALGARY**

WHEREAS Section 369 of the *Municipal Government Act*, R.S.A. 2000, c. M-26 (“the Act”) provides that the council of a municipality must pass a supplementary property tax bylaw to authorize it to impose a supplementary property tax in respect of property for which supplementary assessments have been prepared;

AND WHEREAS Council has enacted Bylaw __M2010 to authorize supplementary assessments to be prepared during 2010;

NOW THEREFORE THE COUNCIL OF THE CITY OF CALGARY
ENACTS AS FOLLOWS:

1. This Bylaw may be cited as “The 2010 Supplementary Property Tax Bylaw”.
2. In this Bylaw,
 - (a) “Act” means the *Municipal Government Act*, R.S.A. 2000, c. M-26;
 - (b) Bylaw __M2010 refers to a bylaw of The City of Calgary to authorize the preparation of supplementary assessments in the City of Calgary during 2010;
 - (c) “City of Calgary” means The City of Calgary, a municipal corporation of the Province of Alberta and, where the context so requires, means the geographical area within the boundaries of the City of Calgary;
 - (d) “Council” has the same meaning as in Section 1 of the Act;
 - (e) “Supplementary Assessment” means an assessment made pursuant to Bylaw __M2010.
3. A supplementary property tax shall apply to all taxable Supplementary Assessments which have been prepared in 2010 in accordance with Bylaw __M2010.
4. Subject to the provisions of Section 369 of the Act, the supplementary property tax rates for 2010 are the same as the property tax rates set by the 2010 Property Tax Bylaw.

5. A supplementary property tax roll shall be prepared in accordance with Section 369 of the Act.
6.
 - (1) Supplementary property tax notices shall be prepared in accordance with Section 369 of the Act for all taxable property shown on the supplementary property tax roll of The City of Calgary.
 - (2) Supplementary property tax notices shall be sent in accordance with Section 369 of the Act to the persons liable to pay the taxes.
7. This Bylaw comes into force on the date it is passed.

TEXT FOR DISCUSSION ONLY