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SUMMIT

CANADA'S MAGAZINE ON PUBLIC SECTOR PURCHASING

PROCUREMENT OMBUDSMAN

Mending the links between
buyers, clients and suppliers

Policy and technology

New Brunswick's social services
become accessible and inclusive

+ New technologies pose threats

What you need to know



SO HERE IT IS, THE FIRST OF *SUMMIT*'S FALL ISSUES. As usual, summer went by too fast for many of us both at work and at play.

Procurement has been much in the news over the summer, what with the purchase of new jets being debated and with the decision announced following the provincial premiers meeting that the provinces will cooperate in purchasing drugs. In my opinion, the decision to combine their purchasing power to help contain the cost of drug programs is a welcome one... and some might say overdue... nevertheless this decision will make some serious changes to the procurement process to the benefit (it is hoped) of each province and to us as citizens.

This issue of *Summit* provides some articles that might stimulate change in other areas of procurement. "Bonding for small contracts" offers a solution that may help municipalities and their small contractors continue to do business. The column "In my opinion" suggests strongly that municipal procurement departments need to take a look at their piping procurements. And on the subject of proposed changes, "Publisher's profile" features Shahid Minto, former federal Procurement Ombudsman, who comments on the challenges he sees in federal procurement process and practice.

Naturally, IT continues to play an important role in procurement, both as a purchase and as a tool. New Brunswick has contracted with xwave to put the technology in place that will transform its social services infrastructure and make it more inclusive and easier for citizens to access. A submission from Symantec outlines security threats that public sector organizations need to be aware of. Their *Internet Security Threat Report* details some serious threats to data integrity and privacy.

I think you will find your reading interesting, helpful, perhaps even thought provoking. Enjoy.

Anne



12 Inclusive defines policy supported by technology
New Brunswick is transforming its social services infrastructure using state of the art technology.
by Jeff McGuigan

15 Online threats
Symantec's Internet Security Threat Report outlines what governments need to know to protect data and privacy.
by Marc Fossi



17 Bonding for small contracts
MunicipalWorks Bond offers an alternative to the usual bonding process that may keep municipalities working with their small contractors.
by Lori Kieswetter

OPINIONS

6 PUBLISHER'S PROFILE
Federal Procurement Ombudsman – an office making a difference
Shahid Minto outlines where federal procurement practice and process faces some challenges and successes.
by Kevin McGuinness



10 SUSTAINABLE PROCUREMENT
Soap and soup: a sustainability story
The hospitality industry is adopting many programs to become "green" and public buyers can reward them with contracts.
by Larry Berglund

21 IN MY OPINION
Procurement reform for underground water infrastructure
Procurement departments are challenged to take a look at total life-cycle costing and proven alternatives to the usual piping used for water infrastructure.
by Bruce Hollands

5 SUMMIT UP

- ▶ National ship building procurement strategy
- ▶ New RCMP divisional headquarters for Nova Scotia
- ▶ Maritime helicopter project update
- ▶ Announcing the winner of the 2010 Leadership in Green Procurement award

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▶ NATIONAL SHIP BUILDING PROCUREMENT STRATEGY

In early June 2010, the Government of Canada announced the National Shipbuilding Procurement Strategy, which was developed after consultations with industry stakeholders.

According to the news release, the strategy has three streams: “large ship construction, small ship construction, and repair, refit and maintenance projects. [Following a competitive process], the government will establish a long-term strategic relationship with two Canadian shipyards for the procurement of the large ships – one to build combat vessels, the other to build non-combat vessels. A fairness monitor and independent third party experts will participate in the process.

The construction of smaller ships will be set aside for competitive procurement among other Canadian shipyards. The repair, refit and maintenance of ships in the government fleet will continue to be sourced through competitive tendering.

▶ RCMP ‘H’ DIVISION HEADQUARTERS FINDS HOME IN NOVA SCOTIA



According to a July 13, 2010 news release, PCL Constructors Canada Inc. was awarded a \$59 million contract for a new RCMP headquarters in Nova

Scotia – a three-year construction project that will use the latest building technology with the aim of receiving a LEED® (Leadership in Energy and Environmental Design) rating. Occupancy is slated for December 2013.

▶ MARITIME HELICOPTER PROJECT

A July 25, 2010 news release announced that in June 2012 the Canadian Forces will take delivery of “28 state-of-the-art, combat-capable CH-148 Cyclone helicopters, associated logistical and in-service support, spare parts, as well as modifications to the Halifax-class ships and construction of a new training facility equipped with a full training suite of flight, mission and maintenance simulators.”

According to the news release, “[The contractor] Sikorsky advised the government of potential difficulties delivering an interim helicopter with fully compliant mission system software by November 2010.” A proposal to deliver an interim helicopter was put forward that did not meet the requirements of the contract as written, so the contract had to be amended.

Following concessions made by Sikorsky, an amended contract was signed on June 30, 2010 thus allowing the delivery of six interim helicopters with a preliminary version of the mission software starting in November 2010. This solution allows the Canadian Forces to continue its training and testing activities as it prepares to receive the fully compliant helicopters in 2012.



L to R: Anne Phillips, (*Summit* magazine); Grant Waddell, (Toronto Transit Commission), Kathleen Muretti, (Canadian Public Procurement Council)



2010 LEADERSHIP IN
GREEN PROCUREMENT AWARD

And the winner is . . .

The Toronto Transit Commission (TTC)

The Toronto Transit Commission (TTC) is the winner of the 2010 Leadership in Green Procurement award. The announcement was made October 5, 2010 in front of the conference participants at the Canadian Public Procurement Council’s annual Forum. On behalf of his team and the TTC, Grant Waddell accepted the award.

The TTC developed and adopted a *Green Procurement Policy* and is in the process of implementing it throughout the entire organization, as well as outward to suppliers and similar organizations. Waddell provided details of the TTC’s winning submission at a special session at the CPPC Forum.

Finalists for the 2010 award were the Ontario Public Service Life Cycle Analysis Project and Metro Vancouver Green Procurement Initiative.

The Leadership in Public Procurement Award program is sponsored by *Summit: Canada’s magazine on public sector purchasing* in collaboration with the Canadian Public Procurement Council (CPPC). Judged by a jury of peers, the Leadership Awards provide recognition across all levels of the Canadian public sector for the work done by procurement professionals. Nomination forms for 2011 will be online at www.summitconnects.com in January 2011.

Details on the submissions for the 2010 Leadership in Green Procurement Award will be in the next issue of *Summit*.

*Federal procurement ombudsman –
an office making a difference*

An interview with Shahid Minto

by Kevin McGuinness



The Office of the Federal Procurement Ombudsman was created following the implementation of the *Federal Accountability Act*. Shahid Minto was appointed as the first such ombudsman in May 2008, after serving 28 years with the Auditor General of Canada, followed by service as the first Chief Risk Officer in Public Works and Government Services Canada (PWGSC). With this experience, a law degree and a CA qualification, his credentials would be difficult to match. Sadly, from the perspective of those who are committed to enhancing professionalism in Canadian government procurement, Minto retired in July 2010. Until a new ombudsman is appointed, Deputy Procurement Ombudsman Oriana Trombetti is in charge of the office. When I bumped into him at this year's annual Purchasing Management Association of Canada conference he agreed to an interview.

Under the *Department of Public Works and Government Services Act*, the Federal Procurement Ombudsman is required to review procurement practice at federal departments to assess their fairness, openness and transparency and to recommend improvements to those practices; review complaints respecting the award of any contract below the Agreement on Internal Trade threshold amount; review complaints respecting the administration of a contract for the acquisition of materiel or services; and finally, ensure the availability of an alternative dispute resolution process.

Minto pulls his various responsibilities together in one theme: "Improving communication and strengthening an ethical environment would strengthen Canadians' confidence in federal procurement. Our business model is less about just following the rules and much more about doing the right thing. Procurement decisions should always take ethical considerations into account. The real question is not just what minimum actions government officials must take to meet a narrowly defined policy or legal requirement, but how those actions ensure that the principles of fairness, openness and transparency are upheld."

The ombudsman's mandate includes all phases in the procurement life cycle, from defining the requirements or specifications, through developing a procurement strategy, soliciting and evaluating proposals, the award of the contract, its administration, and its closing out. Globally, the basic objective of the office is to strengthen Canadians' confidence in federal procurement. "Parliament gave the office a clear and focused mandate," Minto observes.

The overall approach under Minto's administration has been to build trust and confidence among all the stakeholders in public procurement. Doing so, is a two-way street, and as a result of this process of dialogue the process has been much smoother going than some might have expected when his office came into being. In the view of many observers, this is very much attributable to the man and his approach. He notes that, "The feedback we have received from all stakeholders confirms that our dedicated staff is professional, knowledgeable in procurement and impartial; the recommendations we make are reasonable, well thought out, affordable and practical. Informal inquiries indicate that stakeholders have found our interventions to be very helpful and significant actions have already been taken on recommendations we have made to departments and agencies."

We turned our discussion to the difficulties encountered in creating a new government entity. He explains that it was literally necessary to build it from scratch. "When I began, it was just me and a summer student. Now the office has a full-time staff of 24 professionals. Yet, it remains nimble."

Minto considers the process of creating and shaping the ombudsman's office during its early days to be one of the things that he is most proud of. He points out that his office is now consulted by other countries, who are interested in improving the accountability and transparency of their own procurement systems.

Reaching this point was far from easy. The office came into being in the shadow of the Gomery inquiry. Despite the media criticism focused on federal procurement at that time, Minto points out that the vast majority of people engaged in public procurement in the federal government are hard working, dedicated public servants, who must often carry a heavy file load. He feels that the media focuses too much on isolated scandals. This constant criticism undermines morale and the confidence of Canadians in public procurement. Low morale was a serious problem he discovered while setting up the ombudsman's office. "Many of federal procurement people were reeling," he observed, "yet at the same time we found a system that has a lot of highly competent professionals and solid achievements of which it should be proud."

He sees problems with the federal procurement process as largely the inevitable result of volume, inadequate training and too many rules. "The federal government spends about \$14 billion annually on good and services under 340,000 contracts. The sheer number of contracts makes disputes inevitable. It is in everybody's interest to resolve disputes quickly and preserve the working relationship."

Minto and his team have chosen to implement a business model that focuses on a collaborative approach to ensure

efficient and timely resolution of issues between the government and suppliers.

“Our commitment has been to be part of the solution. We seek resolution of individual concerns to the satisfaction of all involved; and to make balanced and useful recommendations to strengthen the fairness, openness and transparency of government procurement. We follow a collegial and cooperative approach with suppliers, departments and agencies, as well as parliamentarians who of course play the ultimate oversight role.”

This approach has paid dividends in terms of voluntary compliance. “Deputy ministers in all departments have provided us with key contacts in their organizations, and we have developed good working relationships with them. Our collegial approach to procurement disputes has been very well received, and the results are impressive. Most of the complaints brought to us have been resolved without our resorting to detailed investigations, saving time and effort on the part of both suppliers and government officials.”

He is happy with the contributions that his office has made to federal procurement, and (while recognizing that improvements can still be made) is generally very supportive of the efforts of the public servants involved in the procurement process:

“Our public service does a lot of things really well. We don’t give them enough credit for the positive contribution that they make to Canadian life.”

Encouraged by parliamentarians to pursue a broad agenda, the ombudsman has intervened successfully in a wide range of procurement areas, with the result that the ombudsman’s office has quickly developed a reputation as a benchmark entity in the procurement field. The timeliness of their efforts has helped the office develop credibility both within government and with suppliers. He requires all queries to be responded to within 24 hours, and within 48 hours after that there must be a substantial response. The goal is to get matters resolved within a 10 to 12 day time-frame.

Further credibility has been built through a proactive approach. Minto explains: “Our office continues to deliver on its promise to maintain an active outreach program. We made presentations on the activities of our office to suppliers and public servants across the country on more than 30 occasions. We also hosted international delegations from Kenya, China and the Ukraine.”

While much has been done, much more work remains. Over Minto’s tenure, the office has received a steadily growing number of inquiries from suppliers. Not all are complaints. The majority of inquiries are only questions about procurement-related issues. Initially, many suppliers inquired regarding the award of a contract. Now, many suppliers are bringing more complex issues to the ombudsman’s attention, relating to questions of fairness, openness and transparency in the procurement process. For example, they are asking questions about the suitability of time-lines for bidding for

contracts, and other details of the solicitation, evaluation and contract award process. We went on to discuss how many of these problems stem from the plethora of rules that surround the public procurement process.

Minto had this to say: “I think that the time that it takes to carry out a procurement project is one area where there is great room for improvement. Both the public service and suppliers find it frustrating. The procurement process should support the delivery of government services. However, in practice, it often tends to become an impediment to efficient service delivery. This forces managers to try to work around the system rather than within it. Suppliers complain about the complexity and the length of the process.”

Nevertheless, he observes, a proper process is essential. He refers to a passage from the *Bellamy Report* on Toronto’s computer leasing inquiry: “It is widely recognized that public officials have a greater responsibility to uphold ethical standards to protect the public interest. ...“In surveying the literature and research on procurement, it quickly becomes evident that a primary focus of professional attention is on policies, procedures, directives, guidelines, techniques, best practices, etc. However, procurement is about more than the technical components. Almost universally, experts offered the view that ethics-related values and principles are the essential foundation of public sector procurement in leading jurisdictions.”

Another recurring problem that the ombudsman has noted has been one of incomplete file documentation. Poor file keeping contravenes the requirements of the Treasury Board Contracting Policy, the *North American Free Trade Agreement* and departmental operations manuals. Minto notes that “These impede the transparency of the federal government procurement processes. In some cases, lack of documen-

tation has resulted in unfavourable consequences in both tribunals and courts when government decisions were challenged. In fact, the Canadian International Trade Tribunal has held that ‘maintenance of complete documentation for each procurement is essential to preserving the integrity and transparency of the procurement system.’”

Although poor file keeping may be the result of work priorities and volume, Minto observes that “It has been evident to us during our work, a poorly documented file results in a totally unnecessary but significantly increased workload for both the procurement officials and those involved in oversight functions.”

Minto suggests that proper file administration should be made a performance objective in annual job performance evaluations, with appropriate recognition or consequences for success or failure to achieve results.

Another recurring problem he identifies relates to poor communication between the government and the supplier community. “We were repeatedly told by supplier associations, and even some Members of Parliament, that the gov-

“Our public service does a lot of things really well. We don’t give them enough credit for the positive contribution that they make to Canadian life.” – Shahid Minto


ernment does a lot of consultation where public servants are hearing but not listening. Furthermore, we were informed by individual suppliers of many instances of misunderstandings and miscommunication during their dealings with procurement officials. There is a cost to both parties when there is poor communication and a lack of respect, real or perceived, intended or unintended.

In many of the complaints made to the office by suppliers, the government's first response has been denial of either the existence of a problem or any responsibility for it. While we understand the need to minimize legal liability, unnecessary denial leads to delays, unnecessary costs and a breakdown of trust between the government and its suppliers. Just as procurement officers expect to be treated with respect, suppliers too are mature partners in the supply management team and should be treated with the same respect."

Poor communications negatively affect relations between the government and its suppliers. Insufficient attention to communication increases the stress on the procurement process. Both supplier and government staff aggravation could be avoided by better communications between the government and the supplier community.

Our discussion turned to where Minto sees the office heading in the immediate future. One area of interest is with respect to the use of the various electronic tools that have been incorporated into federal procurement over the last few years, such as PS Online. These have been adopted in the hope of enhancing efficiency. He sees it as prudent to evaluate their success, not just to hunt for possible problems, but more to

see how the process can be further strengthened. Another area which merits some further review is construction, particularly with the large investment in infrastructure over the past year. Recent work in improving the design of government contracts may be responsible for the relatively low number of complaints relating to these projects. He suggests that it would be a good idea to check into why things have worked so well – to identify the good practices that have worked, so that they can be exported to other areas.

Retirement will allow Minto the opportunity to pursue a lot of interests that have been on the back-burner for some time. And, of course, there is the benefit of being able to spend more time with his family, "particularly the grand kids." However, it seems unlikely that he will be able to retire completely: "My career in the public service has provided me with an opportunity to interact with Canadians from all parts of the country and to understand and appreciate the great multilingual and multicultural society we live in. My career has allowed me to visit more of the country than most Canadians ever see. Working in government has given me a tremendous insight into the real workings of government. I have a real interest in putting back something into the system, particularly in working with developing countries." 

Kevin McGuinness recently retired from the Ontario Attorney General Office. In addition to his legal work he is a noted author and has co-authored several books on procurement and leadership with Stephen Bauld, publisher of *Summit* magazine.



That old adage “an ounce of prevention is worth a pound of cure,” can be translated into the statement that washing hands can prevent 1.75 million deaths! Did you know that pneumonia and intestinal diseases account for approximately 3.5 million deaths per year. Washing hands with soap and water can save 50 percent of the preventable deaths, making soap as important as soup. According to an article in *The Lancet* in December 2009 by Stephen Luby, we can save 4,000 children under the age of 5-years *every day*. How? By providing soap to wash their hands. What works in developing countries can also work in Canada and elsewhere too, and organizations are taking steps to supply what is needed.

In Vancouver, I recently had the privilege of meeting with Brian Postlewait, the CEO of the not-for-profit, Mission

Possible (www.mission-possible.ca). Through Mission Possible’s services, hotels across Canada will soon collect used soaps, shampoos, conditioners and lotions from exiting hotel guests and ship the used items in totes to Vancouver for repackaging. The repackaging includes removal of debris, running soap bars through a bleach solution, and steaming to kill any bacteria. Items are then repackaged for shipping through the Clean the World network.

Hotel custodial staff will be given containers to temporarily hold the products and then ship the containers off when they are full. Clean the World began this program about 18 months ago out of Florida and it has led to the collection and processing of 20,000 to 30,000 pounds of soap per month. In turn, they have shipped out 400 tonnes of repackaged products to global communities.

Postlewait’s organization will redirect the repackaged products for distribution to people within the Downtown Eastside of Vancouver where again, the cleaning items will help to reduce the rate of preventable diseases – prevention beings far less costly than treatment. Better hygiene contributes to a healthier individual and mitigates the spread of diseases overall.

In Vancouver it is estimated that 400 tonnes of hotel-room personal cleaning products will be diverted from landfill sites per year! The US/Canadian market is annualized at an estimated 70,000 tonnes. The long-term benefits to the environment are certainly intuitive and the saving of lives is remarkable – given the low technology and cost of managing the program.

I’m often asked by companies what can they do to be more sustainable? Supporting not-for-profits such as Mission Possible is one way. With the soap recycling program that Mission Possible is participating in, it becomes a win-win-win as per Postlewait. It demonstrates a commitment to protect environmental interests; Mission Possible creates employment for people within the Downtown Eastside; and the recycled products go towards helping many other disadvantaged people. It’s a part of the multiplier effect. Mission Possible also provides many types of property maintenance services using local labour and environmentally responsible cleaning agents.

This is one example where the hospitality sector is truly raising the bar in terms of sustainability initiatives.

Some of Canada’s public sector supports these efforts through their contracting. For example, many Canadian university travel agreements favour ‘green’ hotel services,

which have been found to be competitive in price and quality. Adding sustainability criterion to the hotel services in RFPs is a way of encouraging continued investments in sustainable practices and eventually rewarding those investments with contracts. This in turn supports the business case for hotels to take on more responsible initiatives, which help to reduce their operational costs. The soap collection services fits well into the hospitality industry strategies and are seen as a value-add by hotel guests. Plus reducing landfill items is a big benefit to municipalities. We can only imagine how many tonnes of soap have accumulated in landfill sites over the years.


The Convention Industry Council support an increase in 'green' hotel operations to remain profitable. Ideas include reusable rather than disposable glassware, flatware, tablecloths, napkins, etc; electronic registration and program communications; use of compostable materials; use of video conferencing; local public transit for event planning; partnering with local culinary training organizations; promotion of the 'green' initiatives that a hotel is utilizing; support for indigenous artists; hiring social and environmental coordinators; use of safe agricultural products; compost and water recycling programs; rainwater catchment and solar heating; hydroponic farm and gardens; optimum towel and linen changes; local construction materials; LEED design for new facilities and retrofitting for older structures; recyclable floor coverings. Many of these you will be considering in your areas of practice for your departments or your clients or the services you offer citizens.

If we extrapolate the US EPA numbers for US federal employees that travel on a typical business day, in Canada we

could estimate that the Canadian public sector utilize 2.4 million room nights (10 percent of the US 24 million room nights) of hotel space per year. Add the private sector business traveler and general public vacationer; the volumes are staggering in terms of consumption. Therefore, the 'green' strategies benefit everyone either directly or indirectly.

Returning to our soap story, the benefits are equally as impressive in terms of humanitarian relief. The credit truly goes to the founders of Clean the World – Shawn Seipler and Paul Till. Both men were seasoned travelers and wanted to find a venture in the 'green' market. Although initially motivated to simply recycle the cleaning products, they heard about the study by Luby and realized that this was a much bigger opportunity.

They have set up their non-profit Clean the World Foundation and have approximately 20 full time employees working in the reclamation side of the soap operations. They service over 100,000 US-based hotel rooms in an expanding market – thus the need to partner with like-minded people such as Mission Possible in Canada in order to grow the business.

Business travelers that frequent hotels that participate in these responsible programs are contributing to sustainable business models. You will sleep better at night knowing that the unused soap products can continue to contribute to a healthier community while you make a clean get away in the morning. 

Larry Berglund draws experience from four decades of buying in the forest industry, public health care, municipal government, university operations, and consulting services. Larry teaches supply chain management and corporate social responsibility courses, seminars and workshops. He is the author of *Food, Finance, and Philosophy: A Role for Supply Management in Corporate Social Responsibility*. For more information, contact Larry at www.prezplus.com.

Inclusive defines policy supported by technology

New Brunswick is transforming its social-welfare infrastructure, and information technology plays an important role in the change.

by Jeff McGuigan

In November 2009, leaders from the government, business and non-profit sectors in New Brunswick met in Saint John for a two-day session called the Final Forum. The forum marked the third and concluding phase of Bringing the Pieces Together, the province's public-engagement process to develop a consensus on New Brunswick's strategy to reduce poverty. The result is Overcoming Poverty Together: The New Brunswick Economic and Social Inclusion Plan, and it represents, in the words of Department of Social Development Minister Kelly Lamrock, "a new covenant against poverty."

It's a covenant that is replacing traditional programs promoting government intervention, social exclusion and client dependency with a new policy framework that emphasizes inclusion, dignity and independence. Rather than establish program-centric objectives – more housing units, more early learning staff, better social assistance rates – the framework measures success by outcomes: less homelessness, more school-ready children, less poverty.

With this new direction has come an increased emphasis on information technology as a means to achieve these outcomes. IT has become an essential enabler in the field of human services and, similar to sectors such as health-care, is being implemented – or, in some cases, enhanced – to help gain the benefits that come with automated, centralized information management: increased accuracy and consistency; more informed decision-making; improved tracking, trending and planning; and integrated service delivery that puts all potentially related stakeholders – hous-

ing, income support, childcare – on the same page.

For clients, meanwhile, this kind of 'wraparound' service delivery means being able to obtain all necessary assistance from one access point. It means not having to provide the same information over and over again to different agencies. It means better, more holistic case planning – and more equitable service delivery regardless of where a client lives.

"In New Brunswick, we are working to ensure our citizens can efficiently and effectively access the supports necessary to connect meaningfully with the economy and with their community," says James Hughes, deputy minister of Social Development. "This work involves not only putting in place the necessary policies, but also tooling our staff to accompany vulnerable citizens on the often difficult journey to inclusion."

Often, that equipment comes in the form of technology. Currently, for example, the department is implementing a housing solution that, when fully operational will connect housing programs to other programs offered by the department such as Income Support and Social Services. The Department of Social Development (DSD) is adopting an integrated client application (ICA) that

will form the basis of a single client record – one that ultimately will be the foundation that could provide accessibility by other government agencies supporting that client.

"These systems offer tremendous potential around not only here-and-now service delivery but also planning for the province's future needs," says Mark Gallagher, program manager at xwave, the



company building the solution. "The ability, for instance, to intelligently analyze a shift in need from three-bedroom family homes to one-bedroom apartments more in demand by seniors represents a significant strategic advantage in terms of where resources should be allocated 5, 10, 20 years down the road."

Similarly, he points out, tracking factors such as age ranges, birth rates and migration in and out of communities enables the department to pre-plan and adjust programs along with housing inventory to meet current and future demands. “We call it planning for the right programs, right assets, at the right place, at the right time.” Such planning is made possible through the use of operational information that will come from the new system combined with mathematical modelling that has long been used in reforestation management, and which xwave is incorporating in the Department of Education for schools and has fully implemented the technology in New Brunswick’s Department of Transportation for civil infrastructure investment decision making. New Brunswick will be able to make the best and informed decisions related to investing in its people along with the best decisions about infrastructure investments. “This will put New Brunswick in a unique position,” emphasizes Gallagher.

Housing is a particular focus for the Department of Social Development. DSD recognizes that safe and affordable housing is central to the social and economic well-being of all citizens, and is a prerequisite for independence, security, health, dignity and self-sufficiency. Hence the development of recent DSD strategies such as Hope is a Home, and a related initiative, A Home for Everyone. The former aims, among other things, to “reduce the core housing need in New Brunswick by 10 percent from the 10.3 percent identified in the [Statistics Canada] 2006 Housing Census.” The latter will provide stable funding for emergency shelters in an effort to reduce chronic homelessness.

Both are significant steps in tackling homelessness and addressing housing need since both cite objectives related to

improved service delivery, with specific goals such as “improve coordination of services across government departments and social service agencies” and “ensure decisions...are based on information that is reliable and current.”

These kinds of objectives are becoming increasingly important in the provision of human services, a broad spectrum spanning areas ranging from childcare and disability support to housing and workplace safety (in the US, human services are also considered to encompass healthcare). Despite the wide scope of these competencies, however, they often support many common functions: intake, triage/assessment, eligibility determination, case management, payment processing, outcome tracking, mobile-worker support – the list goes on (in its 2007 Strategic Technology Map for Government Human Services Agencies, IT analyst Gartner lists 24 different human-services modules).

Consequently many of these agencies face similar operational challenges, such as timeliness of information (Is the file up to date?); ease of access (Is all the evidence attached?); and accuracy (Can the information provided by the client be verified?).

Also, many of these agencies are interdependent: the actions of one often impact another. A decision made regarding disability, for instance, may have a bearing on subsequent assessments related to income support, housing and childcare.

Thus, while they may already have invested in legacy IT systems and are somewhat automated on a department-by-department basis, collectively they operate in a siloed manner, a situation which presents communication obstacles in the form of insufficient information-sharing, extensive redundancy, and inadequate reporting tools, and which, overall, prevents users from holistically managing their dynamic and diverse caseloads.

Technologies such as service-oriented architecture (SOA) can effectively overcome these hurdles. SOA is typically deployed via web-based solutions that enable easy browser-based access to applications and programs while promoting interoperability among them.

The result is an integrated approach to client management and service deliv-


ery that, using components such as a common client registry, maintains data consistency and applies standard internal controls and business rules across multiple departments. With everyone quite literally on the same page, agencies have a more complete picture of a client’s situation and can provide evidence-based comprehensive support.

“Integration is, arguably, the most important advantage of these systems – the fact that users are in essence ‘speaking’ to one another and so are making genuinely informed decisions about their clients,” says xwave’s Mark Gallagher. “There may be multiple points of entry, starting with the earliest stages of identification and ending with final outcome tracking, but they all should be connected via a single, client-centric record.”

For the Government of New Brunswick, this level of connectivity offers tangible value that encompasses numerous areas of government. By gaining access to housing information, Child Protection, for instance, is able to intervene earlier in social and behavioural issues.

The Department of Social Development will use the system to function as efficiently as possible and serve citizens responsively – particularly given its ambitious goals. According to the province’s poverty-reduction plan, “By 2015, New Brunswick will have reduced income poverty by 25 percent and deep income poverty by 50 percent, and will have made significant progress in achieving sustained economic and social inclusion.”

In a recent government news release, Social Development Minister Kelly Lamrock said, “If communities and residents take on a little more responsibility, if business provides a little more opportunity, and if government does what it takes to give people more dignity, then together we can succeed in lifting people out of poverty.”

The operative word is ‘together’, and IT will go a long way toward putting it into action. 

Jeff McGuigan is regional director for xwave (www.xwave.com) in New Brunswick. He is responsible for all operations, delivery and client service in New Brunswick.





Online threats

What governments need to know

by Marc Fossi

As has been the case since its inception, the Internet continues to expand and enable new ways of doing business and communicating. While trends such as social networking, cloud computing, and virtualization continue to gain traction, and are rapidly becoming integral to how business and leisure pursuits are conducted online, these technological advances bring with them additional security challenges.

In today's information-driven world, safeguarding data is a top priority. As technology evolves, it becomes more important for government organizations to know where their digital information is stored, how it is being used, and how to best prevent and protect against its loss so as to avoid downtime and loss of confidential information. This means making sure IT managers or the right government officials are aware of the latest threats and know how to protect themselves.

Unfortunately, cyber attacks and malicious activity continues to spread, and neither the economic recession nor geographic location slowed cybercriminals. Their businesses are thriving while the rest of the world suffers. Internet penetration around the world continues to increase, and as developing countries gain broadband access, cybercriminals have more markets to target.

In fact, according to Symantec's annual *Internet Security Threat Report*, hacking accounted for 60 percent of the

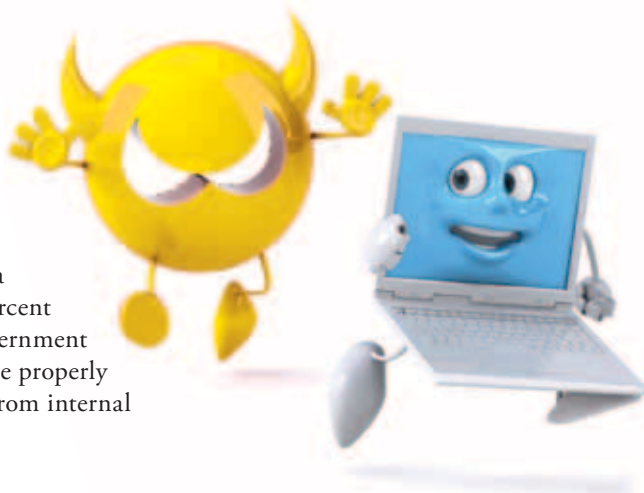
identities exposed in 2009, a marked increase from 22 percent in 2008, so it is vital all government organizations ensure they are properly protected and safeguarded from internal and external threats.

Growth of cybercrime

Cybercrime is a universal problem. Attackers have evolved from simple scams to highly sophisticated campaigns targeting government entities and some of the world's largest corporations. The scale of these attacks and the fact that they originate from around the world, makes this a truly international problem requiring the cooperation of both the private sector and world governments.

In 2009, Symantec blocked an average of 100 potential attacks per second. Malicious code is as prevalent as ever, with more than 240 million distinct new malicious programs identified by Symantec in 2009 – a 100 percent increase over those found in 2008.

One of the latest threats identified by Symantec is the Hydraq Trojan (a.k.a., Aurora). This threat uses a zero-day vulnerability in Microsoft® Internet Explorer® to install itself onto a computer. Another method it uses is a social engineering ploy that relies on a maliciously coded PDF sent as an email attachment. Although a number of the command-and-control servers that the Trojan relied on for its propagation are no longer active, additional



instances of Hydraq could still exist within an organization's network. While government entities were not specifically targeted in this attack, some critical infrastructure sectors were targeted and such attacks will continue to negatively affect private sector and government organizations until they can be identified and eliminated.

Social networking threats

Social networking sites should be of particular concern to government organizations. Not only does social networking provide potential attack vectors for threats, such as Koobface, but if organizational policies are not established (both from an end user and network perspective), it can create security issues for the organization and its employees. This includes the potential loss of confidential information and the possible exposure of the organization to liabilities from compliance concerns. One recent example of this occurred in July 2009, when the new head of the British foreign intelligence service was identified publicly by his wife's posts on her profile on a social

networking site.

These problems can be compounded by government organizations having differing responses to social networking. For example, the US Army has issued guidance to its soldiers as well as to civilian employees regarding social networking and what should and should not be disclosed, while the US Marine Corps has banned all access to social networking sites from its network. To effectively manage social networking within government networks, clear policies on access to these sites is required, along with appropriate countermeasures to prevent unauthorized information from being posted.

Social engineering

Another concern is social engineering, which is essentially an attempt to gain access to computers by exploiting human psychology, rather than the attacker having to hack into or physically access the computer.

While social engineering is not a new threat vector, it continues to be an area that gives attackers an avenue into enterprises and government organizations and is a primary mechanism for getting malicious code such as Trojans onto computers. An example of a social engineered attack is phishing. This is where hackers use spam, fake websites, crime-ware and other techniques to trick people into divulging sensitive information, such as bank and credit card account details. Once a hacker captured enough victims' information, they either use the stolen goods themselves to defraud the victims (e.g., by opening up new accounts using the victim's name or draining the victim's bank accounts) or they sell it on the black market for a profit.

Emerging technologies

Another issue facing many government organizations is emerging technologies. While new technologies can often drive innovation, reduce costs and increase efficiency across the organization, they are equally as often not fully understood from a security perspective and could negatively affect enterprises. For example, organizations moving toward a cloud-computing model should have clear policies on what information is allowed to be uploaded by employees and to monitor it.

Clear policies on usage, permissions and ownership between the organization and the ISP hosting the data should also be determined.

Virtualization is another ongoing concern for government organizations. Virtualization can be a tremendous benefit for many initiatives, including reducing the physical footprint of the enterprise and, thus, reducing both capital expenditures and energy costs. However, robust security practices need to be applied to virtual systems as much as to physical systems. This includes employing endpoint security solutions to protect each virtual host.

The underground economy

A final area that continues to be a concern is the flourishing underground economy. While there have been some

Governments need to ensure critical and sensitive information is adequately protected.

successful prosecutions of underground economy operators – including the capture and guilty plea of the TJX hacker for a number of significant data breaches – highly motivated groups and individuals continue to thrive on underground economy forums.

The emergence of attack toolkits has made cybercrime available to anyone regardless of computer skills. Novices can purchase a kit and almost immediately begin deploying sophisticated and varied threats. Toolkits such as Zeus are easy to find online and can be purchased for as little as \$700.

Governments need to ensure critical and sensitive information is adequately protected, and continued efforts among law enforcement needs to be coordinated to address malicious activity occurring globally. This is especially critical in the absence of an agreed-upon international framework for combating cybercrime.

Where do we go from here?


To be truly protected against today's increasingly complex and organized cyber attacks, organizations need multiple layers of security that protects the end user from all angles and it means

looking for an all-in-one suite that is easy to use and protects against malicious software, spam, data loss and downtime.

This solution should have end-to-end protection, ensuring it is sophisticated enough to defeat both known and unknown threats no matter the device (i.e., laptops, desktops, mobile devices and servers; in email; over the network; and in storage devices). The solution must also have effective and accurate anti-spam protection that automatically detects spam without requiring manual adjustment of filtering rules or monitoring of false positives. Finally, the solution should have rapid, reliable backup and archiving technology, enabling government organizations to easily archive and restore data while protecting against new threats.

Given how silent and targeted today's attacks are, government organizations should also ensure they have a robust security information management (SIM) solution in place. This solution collects, analyzes and reports on log data and is designed to deliver proactive security protection, helping organizations demonstrate IT policy compliance and reduce overall security risk.

The effectiveness of even the best technology and processes can be undermined if employees do not understand the value of the government's information assets and their role in mitigating risk. With heightened awareness, however, employees can also become the strongest line of defense and the most valuable security asset. This can be accomplished through formal security awareness training programs or mandating clear security policies.

With cybercriminals finding it increasingly profitable to use the Internet to steal information from consumers and businesses, protection and mitigation against such attacks becomes both an individual and collective global priority. With a proven set of technologies in place and best practices followed, the public sector can keep their information assets safe. 

Marc Fossi is executive editor of Symantec's *Internet Security Threat Report*. For additional information, please visit www.symantec.com



Bonding

for small contracts

MunicipalWorks Bond offers an alternative to the usual.

by Lori Kieswetter

Commonly public buyers do not require surety bonds on smaller projects because these projects are typically sought by smaller contractors who, while they may have the financial strength and technical ability to complete these jobs, they may not qualify for the minimum requirements of the bonding industry to obtain a contract surety bond facility. The minimum bond premium also adds a considerable cost to a small project.

The option to provide a certified cheque or irrevocable letter of credit is frequently offered either on a job specific or blanket basis but this brings with it administrative issues for the owner in terms of tracking and return of funds. Also, contractors would obviously prefer their money be in their own pockets and available should they need it instead of having it tied up for terms of up to three years.

I often think of a client I had some 15 years ago. All he did was \$500 sewer hookups for one municipality. That municipality

required bonds on all projects so the \$500 project increased to \$800 due to the bond premium. This contractor did the job for many years until the downturn in construction in the mid 90s. While the bonding industry had previously required \$50,000 in a company to qualify for bonding, it changed almost overnight to \$150,000. The small contractor was out of business, losing his livelihood. The municipality lost a great contractor. Contract surety is a tough business for an insurance company – and an expensive line to write due to the constant financial reporting. I've often heard it said that it costs \$10,000 a year for a bonding company to keep a file open. It's not hard to see why those minimum requirements changed.

The challenge became to create an alternative for small projects that specifically addressed the needs of both the contractors and the owners. After much discussion with both sides that alternative is now available. Following are comparisons between the three options available to an owner.

Who provides the security?

Contract surety bonds are provided to contractors by bonding companies. There are approximately 15 licensed surety companies supplying bonds to the construction industry in Canada. They are partnered with a number of surety bond brokers. Irrevocable letters of credit are provided to contractors by the banking industry.

The MunicipalWorks Bond is provided by the same bonding industry but specifically by Western Surety Company – a Canadian owned company providing surety bonds for over 100 years and Ogilvy & Ogilvy Insurance – a third generation family owned Canadian brokerage. A process has been provided to enable other brokers to supply this bond to their own clients via the Internet at www.municipalworks.ca and e-bonding is available should the owner wish to use it.

Services provided

Contract surety bonds provide both security and equally important, a prequalification service. They provide assurance to the owner that the contractor has been thoroughly investigated. In order to apply for a contract surety bond facility, a contractor must provide the following:

1. Year end financial statements for the operating company and all related companies along with the corresponding listing of aged accounts receivable and payable and a work on hand schedule showing under-runs, overruns, projected profits etc. on a per project basis.
2. An in-house financial statement for the operating company also including the aged listing of accounts receivable and payable and work on hand schedule.
3. A copy of the terms and conditions line for their bank line of credit.
4. Personal financial statements for all the company shareholders.
5. A five page application form asking such things as contact information for their accountant, a listing of largest projects previously done, insurance coverage, website urls, client and supplier references.

This information is examined thoroughly and credit checks are done on the shareholders and on the company itself. There is an annual cost to the contractor (usually in the range of \$1,500 to \$3,000 per year) to keep a bonding facility active and to cover the cost of all tender bonds required within the year. As well there is a cost for performance and or payment bonds when required. Due to minimum requirements for bonding, the number of qualifying contractors could reduce competition and potentially increase the cost of projects.

Letters of credit provide only security and there is no attempt to provide any prequalification service. The contractor is required to have access to significant cash reserves which limits the contractors that could qualify which would reduce competition and potentially increase the cost of projects.

The MunicipalWorks Bond provides only security and there is no attempt to provide any prequalification service.

What is covered and for how much?

A Contract surety bond is contract specific. Virtually any contract type or size can be considered. If the contractor met with problems the surety company takes on the contractor's obligations and can either finish the job themselves or work with the owner to arrange for another contractor or simply pay the owner the cost to complete the job up to the value of the bond penalty, which is typically either 50 to 100 percent of contract value.

Letters of credit can be job specific or blanket and can accommodate virtually any contract size depending on the credit strength of the contractor. Typically the size required by owners would be in the 10-20 percent of contract price range. If the contractor met with problems, the owner would have to make arrangements themselves to complete the project. Any project funds not yet paid to the contractor would obviously still be available to complete the project.

The MunicipalWorks Bond is not job specific as it is issued on a blanket basis covering any number of contracts between that contractor and the obligee (owner). It covers only projects

What services	
INCLUDED	
	▶ Roadwork
	▶ Sewer and water main
	▶ Electrical services
	▶ Gas services
	▶ Street lighting
	▶ Traffic signals
	▶ Buildings
	▶ Bridges

under \$125,000 in value and lists specifically the projects included and excluded.

Changes to this list will be considered and endorsements issued to allow for the change. The maximum funds available to an owner, no matter how many contracts the contractor was engaged in with that owner, would be \$20,000. Any project funds not yet paid to the contractor would obviously still be available to complete the project(s).

Claims

Contract surety bonds are based on contract law and so must follow the construction contract. If a problem arises on a project and a claim is made by the owner, the owner must have declared the contractor to be in default and then must be found to be in default. When the claim is made, the bonding company will investigate fully and must agree that the contractor is in default, but if it is unclear then the courts will have to decide. To enable the bonding company to make such a decision the owner must cooperate fully in providing all project documentation and records. There is a

requirement that the owner must be found to have lived up to their own obligations under the contract before a bond will respond.

When using the letter of credit, if there is a problem on a project the owner is able to cash the letter of credit easily but there will undoubtedly be legal action following should the contractor feel it was unjustified.

The MunicipalWorks Bond requires that the owner provide only enough documentation to substantiate their claim. Once the claim has been paid by the bonding company the owner must complete the contract. Again the maximum payout will be \$20,000 no matter if there were five projects affected or just one.

Protection for subcontractors and suppliers

If a labour and material payment bond is required in conjunction with a performance bond, then the bond protects the subcontractors and suppliers with a direct contract by ensuring they are paid in full once their claim has been validated. This comfort may result in lower prices.

The letter of credit offers no protection to subcontractors or suppliers which may result in more liens being placed on the project

The MunicipalWorks Bond offers no protection to subcontractors or suppliers which may result in more liens being placed on the project.

Validity period

The contract surety bond follows the contract and is in effect for the duration of the project as well as the maintenance term. It is not cancellable.

The letter of credit may contain expiry provisions necessitating a tracking system by the owner and the possibility of the owner being left without protection mid-way through the project.

The MunicipalWorks Bond is valid until cancelled. The owner will be notified by registered letter by the bonding company of their intent to cancel the bond 30 days in advance but any projects underway will be covered to completion.

Both the firms involved in the MunicipalWorks Bond understand fully that all construction companies started somewhere and it is our responsibility as members of the construction industry to provide assistance to large and small alike. Likewise it is understood the bond is only as good as its claims handling.

This MunicipalWorks Bond was created with much consultation with the public buyers and risk managers, and the contractors themselves. The claims process is clear and concise and it is fully understood that claims will be paid not after lengthy investigations but upon receipt of documentation to validate the numbers. By limiting its availability to this program, it is possible to ensure this claims process is handled exactly as intended – as an alternative to the letter of credit. *MM*

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s are covered

EXCLUDED Non-construction services, for example:

	▶ Janitorial services
	▶ Snowplowing services
	▶ Waste pickup and removal
	▶ Transportation services
	▶ Land development



Reforming procurement practices for **underground water infrastructure**

Canada's underground infrastructure is at a crossroads. It is corroding at an alarming rate and purchasing managers have the opportunity to take an active role in reforming current procurement practices to ensure adoption of sustainable and cost-effective materials and solutions.

Upwards of \$100 billion will be spent on public infrastructure in the coming years, with a significant portion allocated to building and replacing water and sewage lines. More open procurement processes that include the life-cycle cost of underground infrastructure are critical to spending this money wisely.

According to McGill University's Professor Saeed Mirza, municipalities must consider the full cost and depreciation of infrastructure, as well as the operation and maintenance of assets over their service lives when making purchasing decisions.

Changing outdated procurement

Municipal purchasing managers can, and perhaps must, review procurement practices for underground water infrastructure to ensure that bidding is aligned with modern asset management standards that consider life-cycle costs and materials performance in all public projects.

Current procurement methods, however, are costly and prevent informed decisions because bids are often closed to qualified products. Opening them, according to experts, will save municipalities between 10 to 20 percent on all goods and services purchased.

The water and wastewater sector is a case in point. Pipe is the largest compo-

nent of a water utility's assets and seriously impacts operations and maintenance costs, which are spiralling out of control. So, the performance of a utility's pipe materials is critical to holding the line on costs.

Unfortunately, utility operators will often exclude widely used materials, saying they need to further "study" them, or rely on myths to avoid breaking old habits. Even products that are certified by every required international, national, state and provincial agency, and used by thousands of municipalities worldwide, can be excluded. This means less competition, resulting in higher prices for goods purchased by local governments. And higher front-end costs are only part of the story – tendering that is less competitive has costly cascading effects further down the line.

The corrosion eating away at our nation's underground infrastructure demands that all municipalities renew their practices in this area. And beginning this process will require fair bidding and openness to alternative and proven pipe materials.

The corrosion crisis: old technology versus sustainable options

According to the study, *Corrosion, not Age, is to Blame for Most Water Main Breaks*, corrosion is the leading cause of over 700 daily water main breaks

throughout North America (watermain-breakclock.com). A 2002 congressional study found that corrosion costs US water utilities over USD\$50.7 billion annually. For Canada, the yearly figure is over \$5 billion. Despite these huge expenses, however, many municipal utility operators have failed to consider the cost-benefits of using non-corroding pipe materials.

Today's corrosion crisis is due to materials used in North America's underground pipe networks over the last 100 years. At first, cast iron was used, with ductile iron gradually replacing it as the material of choice. Both now suffer from the ravages of corrosion. Moreover, the burden of old technology materials is not limited to the cost of repairing and replacing failed pipelines. It includes the cost of losing treated water from leaking systems – averaging between 20 and 50 percent in most water treatment systems.

Montreal is a case in point: about 40 percent of the water pumped through its underground network is lost to water main breaks and leaky pipes. And there is no end in sight to the waste: as our water distribution systems age, leak rates increase, while higher energy costs and even stricter water quality standards continue to drive water pumping and treatment costs even higher.

Sustainable and corrosion-proof

The solution to these problems begins with sustainability, durability and corrosion resistance and this is why municipalities must actively consider including alternative materials such as PVC in their bidding processes. Increased durability means fewer leaks, better water conservation and lower costs. Lower operating and life-cycle costs make good economic sense.

With over two million miles in service in North America, PVC has been celebrated by *Engineering News Record* as one of the top 20 engineering advancements of the last 125 years. A study by the American Water Works Association Research Foundation recently quantified the life expectancy of PVC pipe at more than 110 years – making it excellent for long-term asset management and sustainability. Another study presented at an international pipe symposium in Milan reported that vinyl pipe installed 70 years ago in Germany could easily see its 170th anniversary.

Additionally, PVC's ultra-smooth surface means that less energy is

WALKERTON, ONTARIO: from tragedy to triumph

Another advantage of PVC pipe is that its smooth, non-corrosive surface stays clean even after decades of use, unlike that of iron pipe, which suffers from tuberculation, a bio-film contamination. Tuberculation is internal sedimentation and corrosion which restricts the flow of water in iron pipe.

Iron pipe was used in Walkerton, Ontario where 2,500 people got sick and seven died. E-coli had infiltrated the water network and the town had great difficulty purging it from the system, since it had been exacerbated by tuberculation in the iron pipe. Only after repeated and costly flushing with super-chlorination was the piping system safe to use again.

Now part of the Municipality of Brockton, Walkerton is replacing its iron pipes with PVC. In fact, it's the only material the community now uses in its water system. Says Colin Saunders, Brockton's utilities manager, "With PVC pipe, I don't have concerns about corrosion, tuberculation or water main breaks, and this means lower maintenance costs and a longer lasting piping network."

required to pump water from source to tap. According to Dr. Bryan Karney, professor of civil engineering at the University of Toronto, a national program to replace older pipes with hydraulically efficient plastic pipes could reduce Canada's greenhouse gas emissions by up to five percent.

Furthermore, PVC pipe is more efficient to manufacture, taking four times less energy to make than concrete pressure pipe, and half that used for iron pipe. PVC's light weight reduces transportation and installation costs, yielding additional energy savings. It is also totally recyclable, though most of it has yet to enter the recycling stream given its great durability.

A municipal success story

A two-year study conducted in the 1990s by National Research Council of Canada showed that PVC pipe had the lowest break rate of pipe materials tested.

Municipalities which have adopted this technology have achieved dramatic results. In 1978, Calgary implemented


a more open procurement policy allowing PVC. As a result, half of its 4,000 kilometre water distribution system now consists of this material. Its water main break rate, at 0.2 per 100 kilometres, is the lowest in Canada.

Use of corrosion-proof piping materials is essential to the long-term financial management of water and wastewater systems. By making extensive use of PVC, Calgary and Edmonton save an estimated \$5 million a year in water main repair costs. But this is only part of the savings. The biggest financial benefit will come from lower replacement costs over the long term. If the Calgary approach were adopted nation-wide, hundreds of billions could be saved over the next century.

PVC pipe: the future of water distribution

While most municipalities in Canada allow PVC pipe in smaller diameters (up to 12 inches), some do not allow larger-sized PVC – especially in eastern Canada. Use of small diameter PVC pipe has helped water utilities keep the water main break problem from getting worse. Increasing its use in large diameters would help municipalities emulate Calgary's success.

For instance, the water main break rate per 100 hundred kilometres for several major Canadian cities is high: 8.7 for the Region of Durham, 10.9 for Peel Region and 26.9 for Toronto. These rates would be significantly reduced by increasing the use of longer-life, lower maintenance assets like PVC pipe.

Solving Canada's underground corrosion crisis will require openness to alternative, longer-lasting and more resilient pipe materials such as PVC. And purchasing agents and water utility officials should take the lead from Calgary and other communities by insisting that PVC pipe be part of their bidding processes. 

Bruce Hollands is executive director of the Uni-Bell PVC Pipe Association, a non-profit organization representing North America's PVC pipe industry and serving the engineering, regulatory, public health and standardization communities since 1971. He can be reached at bhollands@uni-bell.org or (972) 243-3902, ext. 1019.