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LETTER OF INTEREST
LETTRE D'INTÉRÊT

Title - Sujet	
Request for Information· WCMS	

Solicitation No. - N° de l'invitation	**Date**
24062-130158/B	2013-08-09

Client Reference No. - N° de référence du client	**GETS Ref. No. - N° de réf. de SEAG**
24062-130158	PW-$EEM-044-26321

File No. - N° de dossier	**CCC No./N° CCC - FMS No./N° VME**
044eem.24062-130158	

Solicitation Closes - L'invitation prend fin	**Time Zone**
at - à **02:00 PM**	**Fuseau horaire**
on - le 2013-08-26	Eastern Daylight Saving Time EDT

F.O.B. - F.A.B.

Plant-Usine: ☐ **Destination:** ☐ **Other-Autre:** ☐

Address Enquiries to: - Adresser toutes questions à:	**Buyer Id - Id de l'acheteur**
Dolan, Emily	044eem

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K1A 0S5

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REQUEST FOR INFORMATION REGARDING
MANAGED WEB SERVICE FOR THE GOVERNMENT OF CANADA

Contents

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1. Purpose of this Request for Information (RFI)

The purpose of this RFI is to gain insight and information from industry to develop a procurement strategy to support the Government of Canada (GC) Web Renewal Initiative and to enhance the transparency and competitiveness of any required procurement activity.

In Budget 2013, the Government of Canada indicated that it is, "examining opportunities to streamline its web presence by making it easier for Canadians to find and access Government information on the web through a single entry point." A solutions suite is required to deliver the GC consolidated public website; more specifically, the suite will enable the strategic management of the new GC website and related online services, which will allow for enhanced communication, consultation, and service delivery for Canadians.

2. GC Web Renewal Initiative Goals and Objectives

The Web Renewal Initiative (WRI) is a key initiative aligned with the GC Information Management/ Information Technology (IM/IT) modernization strategy focused on enabling government organizations to fulfil their mandates. Recognizing that more and more Canadians access information and services online, the goal of the WRI is to standardize, consolidate, and modernize the Government of Canada's Web management solutions in order to:
- Improve the effectiveness of online information and services provided through a single consolidated GC public-facing website that:
  – Enables a user-centric approach,
  – Aligns to top user tasks,
  – Moves away from an information architecture that is departmentally-centric, and
  – Delivers pertinent, up-to-date information and services that Canadians are seeking; and,
- Improve the efficiency of the GC Web publishing process.

The WRI has the following key objectives:

1. Establish a unified web content publishing, management and delivery model where individual departments and agencies develop content locally that is published to the GC website using common processes and technologies;
2. Standardize and consolidate the GC web technology platform into one unified system to reduce the hardware, software and other resources required to support web publishing and measurement across the GC;

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3. Simplify the business and technical processes for web publishing for the GC external-facing website;
4. Facilitate compliance with Treasury Board (TB) policies on Official Languages[1], Government Security[2], Privacy Protection[3], Information Management[4], Federal Identity Program[5] as well as the TB standards on Privacy and Web Analytics[6], Social Media Account Management[7], Web Accessibility[8], Web Usability[9], Web Interoperability[10], Optimizing Websites and Applications for Mobile Devices[11], Metadata[12] and Management of IT Security (MITS)[13]; and,
5. Lower the total cost of ownership of the GC web presence.

The WRI is also meant to respond to the growing number of departments and agencies in the GC that need to modernize their web management systems, but face significant challenges related to resource requirements. A single, common solutions suite and infrastructure for the entire GC public-facing website will enable departments and agencies to provide consistent quality, delivery, reliability and reporting of the collective web experience across the entire GC web domain, to improve information and service delivery to Canadians.

For its external public-facing website, the GC currently manages web content using a distributed departmental content management and publishing model. Available statistics (2011) relative to 100+ GC departments and agencies indicate:

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[1] http://www.tbs-sct.gc.ca/pol/doc-eng.aspx?id=26160

[2] http://www.tbs-sct.gc.ca/pol/doc-eng.aspx?id=16578

[3] http://www.tbs-sct.gc.ca/pol/doc-eng.aspx?id=12510

[4] http://www.tbs-sct.gc.ca/pol/doc-eng.aspx?id=12742

[5] http://www.tbs-sct.gc.ca/pol/doc-eng.aspx?id=12314

[6] http://www.tbs-sct.gc.ca/pol/doc-eng.aspx?id=26761

[7] http://www.tbs-sct.gc.ca/pol/doc-eng.aspx?id=27033

[8] http://www.tbs-sct.gc.ca/pol/doc-eng.aspx?id=23601

[9] http://www.tbs-sct.gc.ca/pol/doc-eng.aspx?id=24227

[10] http://www.tbs-sct.gc.ca/pol/doc-eng.aspx?id=25875

[11] http://www.tbs-sct.gc.ca/pol/doc-eng.aspx?id=27088

[12] http://www.tbs-sct.gc.ca/pol/doc-eng.aspx?id=18909

[13] http://www.tbs-sct.gc.ca/pol/doc-eng.aspx?id=12328

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1. Total static websites: 1500
2. Total social media accounts: 700
3. Webpages (excluding weather and data.gc.ca): 4 million
4. Total Canadian and non-Canadian website visitors: 30 million+
5. Approximate page views per year: 3 billion
6. Approximate storage: 2 terabytes
7. Approximate bandwidth per year: 720 terabytes
8. Availability: 99.999%

Please see Appendix A for additional information on the current state of the GC web presence.

A key part of this effort will be the provision of a **Managed Web Service (MWS)** through an external provider (Managed Service Provider) which will include the applications and infrastructure required to serve the following principal needs:

1. Deliver a single consolidated, easy-to-use, policy-compliant, secure and high-performance GC public-facing website;
2. Enable easy, GC policy-compliant, distributed web publishing by all departments and agencies under the management of one department (Principal Publisher);
3. Provide web analytics and reporting on all usage types across the environment;
4. Enable online citizen collaboration and engagement through the website;
5. Enable transition in waves from departmental legacy systems to the new solution over a period of three years; and,
6. Integrate with the GC's search service, social media presence, Open Government services, and link to authenticated web applications.

3. GC Managed Web Service

Note that the inclusion of this information in the RFI does not represent a commitment by Canada that Canada's future requirements for MWS in any subsequent Requests for Proposal (RFPs) will be consistent with this information.

The GC Managed Web Service (MWS) will support the WRI objectives by enabling:
- decentralized content development within individual departments and agencies;
- centralized publishing via a department or agency to be designated as the Principal Publisher for the GC;
- management, and measurement using common processes and technologies and accompanying infrastructure; and,
- provisioning of the MWS by a Managed Service Provider.

It is anticipated that the roles and responsibilities of the involved parties with regards to

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the MWS and the management of the GC website will be as follows (*note that the Principal Publisher is to be determined*):

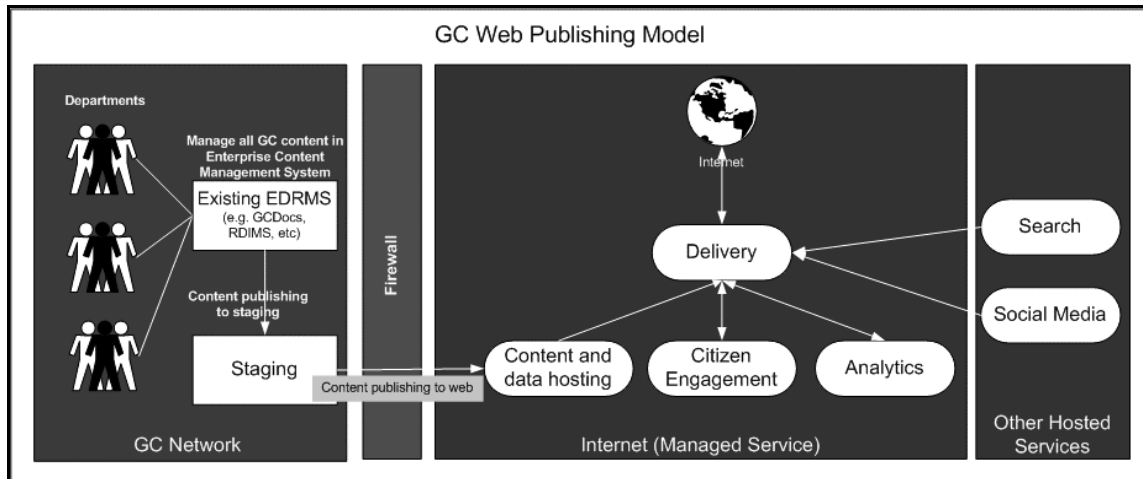**Figure 1 – Roles and Responsibilities**

Departments and agencies	Principal Publisher	Managed Service Provider
• Develop content for themes and departmental sections • Engage with citizens • Analyze metrics for departmental content	• Create information architecture • Design templates • Assign roles and permissions • Coordinate with departments and agencies • Interface with Managed Service Provider • Conduct independent QA & testing	Provide MWS, including: • Integrated services for web publishing • Web analytics system • Engagement platform • Hosting content, website and digital assets • Implementing above services as per GC ongoing requirements • Supporting principal publisher • Ensure the security of the MWS
Shared Services Canada • Provide security • Manage networks and GC Infrastructure		

As per the above, the Managed Service Provider will provide the MWS, which will provide Canada with tools at lower total cost and risk than those provisioned individually by each department and agency.

The MWS will also include provisioning and delivery of the GC website, including web hosting and delivery of content and digital assets for Canada's public-facing website, as well as hosting and/or integration with the MWS solutions suite within and/or outside the GC security perimeter. The MWS will be supported by a common architecture that serves all departments and agencies responsible for the delivery of content and services through the GC website.

The expected components of the MWS are depicted in Figure 2 below (GC Web Publishing Model): the MWS provides for a secure staging environment, hosted by the GC and/or the Managed Service Provider. Content is then pushed through the GC security perimeter to the publicly available external content hosting component of the MWS, hosted by the Managed Service Provider.

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Figure 2 – GC Web Publishing Model

The GC Web Publishing Model allows for departments and agencies to prepare content internally within their organizations using existing content and information development processes, relying on current Enterprise Document and Record Management Systems (EDRMS). When content is approved for staging, it is published to the Staging environment where it is prepared for release to the GC public-facing website. All of this preparatory activity is managed behind the GC security perimeter.

When content is approved for publishing, it is transferred to a content hosting environment in the public Web, and delivered to Canadians via the GC public-facing website. (See section 3.1.1 for additional detail) Content presentation to the website users may be facilitated by a content delivery network, in order to manage load especially during periods of peak or emergency traffic.

The Citizen engagement system may be an integrated or stand-alone component of the main Web publishing system. It allows for departments and agencies to develop online and manage content and public interactions for online policy consultations. In addition to content hosting, the citizen engagement system allows for two-way dialogue through surveys, collaboration tools and other feedback mechanisms. (See section 3.1.3 for additional detail)

The GC Managed Web Service also includes a Web Analytics component to enable the measurement of the entire GC website. The use of a single system for web measurement will facilitate consistent measurement across all departments and agencies, and will permit the GC to measure across its entire domain using a single interface. (See section 3.1.4 for additional detail)

While Search and Social Media are considered outside the scope of the MWS, the system will interoperate with these applications.

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3.1 Scope

The provisioning of the new MWS will be performed by a private sector Managed Service Provider. The MWS will provide all required systems and infrastructure to support operations, including storage, hardware, servers and networking components for the public-facing GC website and, potentially, the components of the MWS residing within the GC security perimeter (e.g. Staging). The MWS will be managed and operated by the Managed Service Provider.

The high-level functional scope of the MWS includes:
1. Infrastructure, including:
   - Web publishing and hosting (content, staging, website and digital assets, content delivery network);
   - Backup and recovery of the site;
   - The required infrastructure to support:
     o Web interfaces to GC content and services;
     o Mobile / remote access technologies;
     o Web Search; and,
     o Interoperability with other GC systems and Web applications;
2. A web publishing system for the management and publishing of content, metadata and digital assets, with components inside and outside the GC security perimeter to facilitate the management of secure and non-secure content;
3. A citizen engagement platform for the management of GC consultations; and,
4. An analytics system for the measurement and reporting of the GC website performance.

These components are described in more detail below.

3.1.1 Infrastructure

A Managed Service from Canada's perspective could include the Managed Service Provider providing space (inclusive of electricity and HVAC) within a provider-owned data centre as well as providing and managing all other assets required to supply the service. Canada would contract for the service provider to plan, build, implement and operate the proposed MWS.

For components of the MWS located outside of the GC security perimeter, the MWS will be hosted in data centre(s) managed by the Managed Service Provider. For components of the MWS located within the GC security perimeter, the MWS components could be hosted and managed by the Managed Service Provider and/or

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the GC.

For components where Canada will outsource the MWS to a Managed Service Provider, the service provider will:
- Be responsible for the provision of all professional services required to provide the MWS;
- Provision and manage all other web hardware and software services required to supply the service including backup and recovery of the site;
- Maintain ongoing operations and management of the environment to Government of Canada service levels and security requirements; and,
- Provide implementation and training support.

3.1.2 Web Publishing

Managing a consolidated website will require a consistent approach to content publishing in order to facilitate the management of information and services at an enterprise level. All departments and agencies contributing to the website will publish their content through a single unified web publishing system, using a common interface provided by the MWS.

The web publishing system will:
1. Facilitate a consistent, standard approach to web publishing, and management;
2. Facilitate the re-use of content throughout the GC website;
3. Enable decentralized content creation and centralized content planning and oversight through the Principal Publisher;
4. Facilitate the consistent presentation of content across the GC website;
5. Facilitate the delivery of content to website users with high availability and reliability; and,
6. Facilitate compliance with accessibility, web standards and integrate well with other services.

A common and shared enterprise-wide platform for web publishing will:
1. Improve the effectiveness and efficiency of web publishing for the GC website;
2. Support a decentralized content creation model where individual departments and agencies develop content;
3. Standardize a GC web publishing platform (integrate the content management infrastructure, applications and systems) to reduce the hardware, software and other resources required to support content creation and web publishing across the GC;
4. Simplify the business and technical processes for content creation and web publishing, for external facing web-presence in the GC;
5. Support the use of remote and mobile devices and Web 2.0 / social media technologies for both the production and consumption of web content; and,

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6. Lower the total cost of ownership of GC web publishing.

3.1.3 Citizen Engagement

The engagement platform will replace the distributed consultation framework that currently exists across the GC.

The GC currently posts information and solicits input and feedback from citizens, to inform policy development. Existing consultations can be accessed through the Consulting With Canadians portal[14]. These consultations are usually conducted at a set time or for a specific period of time, through a variety of channels including online. Consultations can take a variety of formats including:
- written consultation (e.g. survey, documents available for public comment);
- dialogue and debate (e.g. public meetings, focus groups); and,
- processes where the stakeholder/community is able to influence proposed options (e.g. open house events, workshops, etc).

These may even include collaborative policy development (e.g. through wikis, crowdfunding, crowdsourcing, crowdmapping, collective intelligence and other two-way interactive dialogues).

In keeping with the Open Government Action Plan Open Dialogue commitments[15], the citizen engagement platform will deliver a consistent tool to enable departments and agencies to develop, manage and report on external engagement opportunities with Canadian and non-Canadian citizens and stakeholders on policy and legislative topics.

The citizen engagement system will facilitate:
1. Two-way dialogue with citizens online;
2. The ability to make links between consultations of similar topics or intended for similar audiences;
3. A consistent user experience: tools, look and feel, integration with GC web search;
4. A consistent toolset across departments and agencies, for content publishing, dialogue and reporting; and,
5. The use of more interactive methods without incurring significant start-up and operational costs within their department.

The platform is intended to enable GC departments and agencies to, at a minimum:
1. Select from a variety of consultation tools (e.g. from surveys to workbooks to blogs);
2. Develop and publish content;
3. Collect website user information from profiles;

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[14] http://www.consultingcanadians.gc.ca/hm.jspx

[15] http://data.gc.ca/eng/canadas-action-plan-open-government#toc8

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4. Solicit input and feedback from participants;
5. Notify participants of updates; and,
6. Report on outcomes.

3.1.4 Analytics System

As GC pursues the WRI, one important element is the establishment of a common enterprise-wide web analytics approach to facilitate the GC-wide reporting of metrics on the new GC website.

Consistent measurement across the entire GC web presence will enable the reporting and evaluation of the collective GC web experience, to improve information and service delivery to Canadians.

Consistent metrics will facilitate the enterprise-wide evaluation of GC's ability to provide Canadians with content and services that are useful, desirable, accessible, credible, findable, usable and overall valuable. Across the one website, the GC will perform analysis to:

1. Respond to website user needs: creation and delivery of web information and services enabled by user traffic and search metrics;
2. Determine what is the most frequently searched and viewed GC content;
3. Use these metrics to determine what content needs to be updated and kept current;
4. Compare metrics and measure website user sessions across departments and agencies; and,
5. Continuously improve the website through ongoing performance measurement and iteration.

The goal of the procurement is to provision a single enterprise-wide software system that provides measurement, collection, analysis and reporting of data for purposes of understanding and optimizing web usage. The tool will:

1. Measure the entire GC web presence (across the entire domain, all content, all services, all platforms);
2. Function as a common enterprise system:
   o Tracking the entire GC web presence from a single interface;
   o Reducing technology and resource duplication among departments and agencies;
   o Focusing resources on the most impactful areas of improvement;
   o Standardizing the measurement mechanisms for web components (pages, apps, mobile) across the GC;
   o Standardizing configuration and reporting templates across departments and agencies;

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3. Ensure the availability of a system that fully complies with the anonymization and data purging requirements in the *Standard on Web Analytics and Privacy* (compliance deadline July 2014).

3.1.5 Other Scope

Additional components of the MWS may include:
1. Ongoing operations and management of the environment to GC service levels and security requirements;
2. Support to the publishing community to facilitate distributed publishing through workflow and other tools;
3. Implementation and training support;
4. All departments and agencies in Canada as specified in Sections I, I.1 and II of the *Financial Administration Act* and international locations such as Embassies and Missions internationally;
5. Integration Support for GC "Corporate" and "Program" applications (via standard interface toolkits); and,
6. Target of 99.99-99.999% uptime for both the internally-accessed components and the public websites.

3.1.6 Out of Scope

The following items are out of scope for this exercise:
1. Certain public facing content such as weather and data.gc.ca;
2. Secure web applications requiring authentication;
3. Internal websites and Intranets;
4. GC Web Search service;
5. GC Social Media account management service;
6. Website information architecture;
7. Template design;
8. Content creation; and,
9. Workflow design for the publishing process.

4. Security Considerations

Canadian citizens and private sector organizations have become increasingly reliant on online services to conduct their affairs. This in turn requires the GC to interact with Canadians through online channels. Therefore, the use of the GC website has become a predominant method for interacting with Canadians and businesses.

Approximately 300 departmental web teams have access to a web infrastructure

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solution that is certified to carry Classified information, up to and including Secret (including Protected C). There is a need for such a solution to continue to support existing system users and allow for some growth in number of users over time.

Web infrastructure is a known major Threat Vector used in compromising computer networks, and consolidated web hosting and content publishing requires a heightened security posture against sophisticated threats. This includes potential threats from Advanced Persistent Threat (APT) actors as described by Public Safety Canada's *Mitigation Guidelines for Advanced Persistent Threats*[16].

The implementation of a single, unified infrastructure for the staging and publishing of GC web content poses a higher security risk, since all content and digital assets will reside together within the GC security perimeter, and moving through it for publishing. Security measures and controls must be developed in accordance with the *Policy on Government Security*[17] and related standards such as MITS. However, the *Policy on Government Security* does not identify the manner in which web infrastructure security should be implemented.

Presently, departments and agencies utilize their own departmentally specified technical standards to meet their individual requirements, at varying degrees of protection. The use of different standards does not protect departments and agencies equally against web infrastructure threats.

Additional considerations:
- Components of the solution will exist inside the GC security perimeter and outside the perimeter;
- GC will need to finalize the Vendor Security Profile requirements after the Industry Engagement phase;
- The Managed Service Provider should be aware of security procedures[18];
- The Managed Service Provider must recognize Canada's right to order the destruction or deletion of its data; and,
- The Managed Service Provider must ensure that information is accessible only to those authorized, and must comply with the statutory obligations under the *Privacy Act* and the *Access to Information Act*.

4.1 IT Security Risk Management

The *Information Technology Security Guidance-33* (ITSG-33) developed by

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[16] http://www.publicsafety.gc.ca/prg/em/ccirc/2011/tr11-002-eng.aspx

[17] http://www.tbs-sct.gc.ca/pol/doc-eng.aspx?id=16578

[18] http://ssi-iss.tpsgc-pwgsc.gc.ca/questions/esosp-psos-eng.html

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Communications Security Establishment Canada (CSEC) outlines a life cycle approach to IT Security Risk Management. It includes processes recommended by CSEC to help government departments and agencies ensure security is considered right from the start in their IT implementations, and that their systems and organizations undergo continuous improvement to evolve with environmental threats.

ITSG-33 contains a catalogue of Security Controls structured into three classes of control families: Technical, Operational, and Management. These three classes of Security Controls together represent a holistic collection of standardized security requirements, which cover all aspects of systems and organizations.

Please note that the security requirements are subject to change by CSEC. Canada will contextualize and select required security controls as part of its planning phase in order to form a baseline of security requirements that properly address evaluated threats and vulnerabilities, and reduce security risks for SSC and its Partners. The Managed Service Provider will be required to supply a list of the hardware and software to be used in the MWS, for security verification by CSEC.

5. Data Protection Considerations

All information managed by the GC requires protection against unauthorized access, including information published publicly. Personal, confidential and/or sensitive data requires a more stringent level of control, to appropriately protect personal, confidential and/or sensitive data. It is incumbent on Canada to secure and protect information and content repositories used by its Partners. The protection of this information from a privacy and security perspective is core to the integrity of government programs, which underpins confidence in the GC.

Furthermore, privacy and security, which ensure the protection of personal and confidential information, are imperative requirements. Canadians expect the GC to take all appropriate measures to protect confidential and personal information.

Most importantly, the information managed by the prospective MWS Solution provider, including all content and website user information is the exclusive intellectual property of the GC and shall be deemed to remain under the ownership and control of the GC for the purposes of the *Access to Information Act* and all other legislation requirements.

Stringent contractual and technical measures will be put in place to ensure that government information is secured at all times and is only accessed by those authorized to access the web infrastructure for those purposes approved by Canada. Therefore, over the life of the contract(s), Canada and the Managed Service Provider must recognize:

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1. Canada's right to order the destruction or deletion of data;
2. Solution provider compliance with the GC privacy and security policy instruments and practices, and recognition of the GC notification regarding privacy and security breaches; and
3. Proof of privacy and security training and awareness of Managed Service Provider employees who will have access to relevant components of the MWS.

6. Privacy Considerations

Canadians have concerns about their privacy, particularly in the context of electronic service delivery. The GC is committed to protecting the privacy of Canadians' personal information used in the provision of programs and services to the public, in every delivery channel, including in-person, mail, telephone, and on-line.

The GC department and agency operations are driven by policies derived from the *Privacy Act*[19].

The MWS must ensure that information is accessible only to those authorized, and must comply with the statutory obligations under the *Privacy Act* and the *Access to Information Act*[20].

7. Information Requested

The intent is to implement a MWS to deliver the consolidated GC website, where all web services, web infrastructure (content servers, databases and other storage) and ongoing operation and services (such as implementation, training, migration, ongoing application updates and support) could be managed partially within and partially outside of the GC security perimeter, per Figure 2, that is, part of the web infrastructure could reside within the GC and the remaining components would reside outside the GC.

The ongoing operation and services of all components that make up the MWS would be provided by the Managed Service Provider, specifically the provision and operation of the software and services to deliver the following components of the GC MWS:

1. Web hosting;
2. Web publishing (including staging);
3. Web analytics; and,
4. Citizen engagement.

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[19] http://laws-lois.justice.gc.ca/eng/acts/P-21/index.html

[20] http://laws-lois.justice.gc.ca/eng/acts/A-1/index.html

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Information is therefore being requested from:

- Suppliers of goods or services that have experience in the development, implementation and maintenance of web management solutions that incorporate the functionality as specified;

- Suppliers of goods or services that would logically be considered as a specific component of the solution suite; and,

- Interested parties who have knowledge of software solutions that is relevant to the information being requested.

The following should be articulated in responses to this RFI:

a) The considerations that must be taken into account to ensure the selection of an optimal solution suite;

b) The capabilities of Commercial-off-the-Shelf (COTS) and/or and Open source software (OSS) enterprise web tools that can meet the goals of the project, including compliance with the GC policies and standards listed above;

c) The impact of the various hosting and management options, specifically, the hosting or management of all web services and infrastructure either externally or via a hybrid model as well as the management of ongoing operation and services (such as implementation, training, migration, ongoing application updates and support);

d) The impact of the potential need to store all pre-publication content and digital assets in Canada, thus ensuring the applicability of Canadian law and jurisdiction to all aspects of the management, access, collection, use, disclosure, retention, receipt, creation or disposal of the GC's information;

e) The impact of licensing, implementation and support options on the total cost of ownership (acquisition, implementation and maintenance), in order to develop a project budget;

f) The level of effort required of the Managed Service Provider for professional services when implementing and maintaining COTS and/or OSS products under the various hosting and management options; and,

g) Disclosure of all partner organizations to be involved in the delivery of the MWS.

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8. Nature of Request for Information

This is not a bid solicitation. This RFI is the first round of information gathering and will not result in the award of any contract, but will instead support the acquisition planning and refining of statement of requirements for specific solutions. As a result, additional RFI(s) and RFP(s) or other procurement processes may follow.

Potential suppliers of any goods or services described in this RFI should not reserve stock or facilities, nor allocate resources, as a result of any information contained in this RFI. Nor will this RFI result in the creation of any source list. Therefore, whether or not any potential supplier responds to this RFI will not preclude that supplier from participating in any future procurement.

9. Nature and Format of Responses Requested

Respondents are requested to provide their comments, concerns and, where applicable, alternative recommendations regarding how the requirements or objectives described in this RFI could be satisfied. Respondents are also invited to provide responses to specific questions addressed to the industry in Section 12 of this RFI. Respondents should explain any assumptions they make in their responses.

10. Response Costs

Canada will not reimburse any respondent for expenses incurred in responding to this RFI.

11. Treatment of Responses

a) Use of Responses: Responses will not be formally evaluated. However, the responses received may be used by Canada to develop or modify procurement strategies or any draft documents contained in this RFI. Canada will review all responses received by the RFI closing date. Canada may, in its discretion, review responses received after the RFI closing date.

b) Review Team: A review team composed of representatives of the client (where applicable) and Public Works and Government Services Canada (PWGSC) will review the responses. Canada reserves the right to hire any independent consultant, or use any Government resources that it considers necessary to review any response. Not all members of the review team will necessarily review all responses.

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c) Confidentiality: Respondents should mark any portions of their response that they consider proprietary or confidential. Canada will handle the responses in accordance with the Access to Information Act.

d) Follow-up Activity: Following the closing date, the Contracting Authority will follow up individually with all respondents who indicate in their responses that they wish to meet with Canada. Canada intends to request that the Respondent provides an overview of the functionalities of proposed solution and deliver a demonstration of commercial and/or OSS products in order that Canada obtain a better understanding of web content publishing techniques and processes, and assess their effectiveness with some configuration and test data supplied by Canada. During the demonstration, Canada intends to interact with the Respondent to ask questions in order to gain a better understanding of the capabilities of the proposed solution.

Vendors are advised to clearly identify which portions of their response are proprietary. The confidentiality of each Vendor's response will be maintained. Due to the nature of RFI activity, respondents must be aware that aspects (that have not been labelled confidential) of their responses may be used as a basis as Canada prepares for any future procurement. Information provided in response to this RFI will be divulged only to individuals authorized to participate in this pre-procurement activity.

e) Documentation or any other information regarding the proposed solution, tool suite, or supporting third party applications is welcome.

12. Questions to Industry

a) Operating and Business Model

Q-1

The intent is to implement a MWS to deliver the consolidated GC website, where all web services, web infrastructure (content servers, databases and other storage) and ongoing operation and services (such as implementation, training, migration, ongoing application updates and support) could be managed in a variety of ways, where some or all components are hosted by the Managed Service Provider, inside and/or outside of the GC security perimeter.

1) Describe your proposed solution for solving this business issue and delivering the MWS. Also describe the user experience for GC system users and website

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users (Canadians).

2) Would there be elements of the proposed MWS that you could not deliver or that would be very difficult to deliver? If you responded yes, can you propose a solution that would address the intent of the requirement?

3) Is the MWS, as described, adequate to meet the goals and objectives of the Web Renewal Initiative? What other services are available that we have not considered?

4) How can the proposed business model be optimized to provide maximum efficiency at the lowest cost of ownership (acquisition, implementation and operation)? Are there particular considerations to take into account in making such a determination?

5) Describe how available solutions support and can be scaled within a multi-tenant architecture where multiple departments and agencies (100+) are hosted. What are the risks associated with multi-tenancy for this type of solution?

6) Would the MWS be best delivered using an externally hosted or hybrid model? What considerations should be taken into account regarding operations, costing and resourcing for these various options?

7) The GC currently has over 1500 websites in use by departments and agencies, managed in offices in various regions across the country. What approach would you recommend to setup and configure this system, and train and support system users in a timely and cost-effective manner? What changes would you make to accommodate 2,500 system users in five (5) disparate (or geographically isolated) locations?

Q-2

The proposed model assumes a common base configuration for the MWS will be used by departments and agencies, and will require upgrading over its lifecycle. Customization at the departmental level will be limited; however, individual system users must be able to configure their view to meet their particular processes and requirements. This concept also assumes that an open architecture will be required to develop interfaces to other departmental applications and other functionality while separating common presentation elements from business logic development.

1) Describe how products or services can be tailored to meet a broad range of system user requirements without compromising the common base configuration.

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2) Describe how the open architecture or services for the proposed solution could be used to augment the capabilities while ensuring it is not impacted by future system upgrades.

b) Functionality:

Q-3

The GC MWS must be a completely unified, integrated solution providing all required functionality and customizations with requisite interoperability to enable integration with other business systems. For a system that comprises web publishing, web analytics, and citizen engagement tools, describe the components of a complete enterprise web solutions suite or the individual tools, and the functionality offered, as they relate to the following capabilities to:

1) implement a single deployment to serve the entire complement of GC external website;

2) invoke tiered account management to enable system users with varying levels of permissions to work within the systems;

3) enable workflows and tasks to manage website management in either a centralized, a decentralized or a hybrid manner;

4) include full content publishing process (version control, edit, removal, deletion etc.);

5) establish a standardized system configuration for use across GC, without the need for department-level customization;

6) support a fully interactive engagement and collaboration functionality with external website users including options on different methods to engage citizens in a full range of engagements from simple input to real-time interactive discussions, collection of user information via profiles; solicitation of input and feedback from participants; and reporting on outcomes;

7) support emerging technologies and industry standards as they become available;

8) comply with/report on TB policies, such as Official Languages[21], Government

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[21] http://www.tbs-sct.gc.ca/pol/doc-eng.aspx?id=26160

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Security[22], Privacy Protection[23], Information Management[24], Federal Identity Program[25] as well as the TB standards on Privacy and Web Analytics[26], Social Media Account Management[27], Web Accessibility[28], Web Usability[29], Web Interoperability[30], Optimizing Websites and Applications for Mobile Devices[31], and Metadata[32];

9) interoperate with other systems and applications (via open standards, Application Programming Interfaces (APIs), etc.) such as document management, digital asset management, email, reporting, scheduling or portal functions;

10) generate administrative reporting to monitor solution usage within departments and agencies and across the GC;

11) migrate existing content and digital assets into the MWS and suite of tools, either manually or automatically;

12) ensure high availability and reliability of the GC website; and,

13) support the integration and delivery of web feeds for web content.

Q-4

For each tool in the MWS (Web publishing, Web analytics and Citizen Engagement):

1) Please recommend five 'must have' features or functions in the solution that you suggest the GC should consider. Briefly describe them in order of precedence.

2) We anticipate implementing a hierarchical approach to the definition of roles and accounts within each tool. Outline how the hierarchy of roles and rights work in

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[22] http://www.tbs-sct.gc.ca/pol/doc-eng.aspx?id=16578

[23] http://www.tbs-sct.gc.ca/pol/doc-eng.aspx?id=12510

[24] http://www.tbs-sct.gc.ca/pol/doc-eng.aspx?id=12742

[25] http://www.tbs-sct.gc.ca/pol/doc-eng.aspx?id=12314

[26] http://www.tbs-sct.gc.ca/pol/doc-eng.aspx?id=26761

[27] http://www.tbs-sct.gc.ca/pol/doc-eng.aspx?id=27033

[28] http://www.tbs-sct.gc.ca/pol/doc-eng.aspx?id=23601

[29] http://www.tbs-sct.gc.ca/pol/doc-eng.aspx?id=24227

[30] http://www.tbs-sct.gc.ca/pol/doc-eng.aspx?id=25875

[31] http://www.tbs-sct.gc.ca/pol/doc-eng.aspx?id=27088

[32] http://www.tbs-sct.gc.ca/pol/doc-eng.aspx?id=18909

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each tool, and the level of customization offered. How would you suggest we manage tiered enterprise accounts, consisting of the overall GC, departments and agencies and individuals, managing the GC website? Provide an estimate of the resources required to support the ongoing operation of a system, given scenarios of 1,000 and 10,000 system users.

3) The GC utilizes a variety of analytics systems to measure and manage its complement of departmental web properties. Please explain how the proposed MWS suite of tools enables the migration of existing analytics data from these various systems in order to enable continuous operations, and minimize data loss and impact on timelines.

Q-5

The GC MWS must provide features and capabilities that meet industry standards, and comply with a wide range of GC policy requirements.

Describe the features and customizations that a full GC Managed Web Service would need to incorporate in order to ensure compliance with these requirements, and in particular how security models protect content and control access within the business unit (departmental) implementations, and across the entire enterprise-level implementation.

Q-6

In addition to the current proposed components of the GC Managed Web Service (web publishing, web analytics solution, and citizen engagement platform) what additional technologies or solution components would be required to support a modern enterprise GC website?

c) Support and Services

Q-7

MWS Managed Service must minimize software and/or service development work on behalf of GC staff.

1) What tools or capabilities are available to assist in the transition to the proposed model (e.g. migration, process mapping and system configuration, etc.)?

Q-8

The GC MWS must incorporate the necessary redundancy, resiliency, and contingency

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capabilities to ensure service availability 24 hours a day, 7 days a week, and 365 days a year.

1) What options or approaches could be pursued to ensure service availability on a virtually continuous basis?

2) Can you specify the assurance and cost differentiations between 99.9%, 99.99% and 99.999% availability levels?

d) Security Questions

Q-9

The GC MWS must comply with security requirements for the protection of Canada's data and the protection of Canadians' personal information. Note that high-level approximations and ranges are acceptable.

1) What kind of data and applications are large corporations managing using external hosting? Are they using it to manage everything from low to high security data, non-critical to critical applications? Or are they using it for less business-critical applications and data, relying on internal systems for the more sensitive aspects of their information management and service delivery?

2) What processes should be in place to detect, assess, escalate and respond to potential breaches?

3) Describe the audit approach that should be adopted for the MWS, including logging, monitoring, IDS/IPS, incident management and response approach.

4) Describe how best to manage security configuration, change management, vulnerability and patch management within the MWS.

5) The GC manages some content of varying security levels, some of which is Secret until published. Within the context of the MWS, what options or approaches could be pursued to balance the security requirements for pre-published (staged) content with the requirements for timely publishing of public content? How would these approaches affect costing?

6) Canada may require that the MWS tools and infrastructure be established within the geographic boundaries of Canada. Are there any concerns or considerations related to the requirement to house all content and digital assets within Canada? Could geographical restrictions significantly impact your ability to bid? How would this affect your ability to deliver upon the requirements? How would this impact

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costing?

7) Please describe how the MWS comply with the *Privacy Act* and more specifically the *Standard on Web Analytics and Privacy* (http://www.tbs-sct.gc.ca/pol/doc-eng.aspx?id=26761) and the *Directive on Privacy Practices* (http://www.tbs-sct.gc.ca/pol/doc-eng.aspx?section=text&id=18309) that require safeguards to be in place to address the following:
- control over personal information;
- de-identification of personal information prior to storage;
- limitations on collection, handling and re-use as well as any prohibitions regarding personal information for the purposes of the contract;
- disposition of personal information, specifically the depersonalized IP address, after 6 months if externally hosted and 18 months if internally hosted (for analytics systems);
- administrative, technical and physical safeguards;
- storage of personal information (including geographic location of storage facilities and storage arrangements with third parties, if applicable); and
- obligations of other parties acting on behalf of Canada.

8) With respect to Analytics, please describe how your solution can address the need for visit, visitor and session tracking given the need for IP anonymization.

9) GC workers already have a proliferation of accounts and credentials to use in accessing government systems. Please comment on the feasibility of each of the following options for internal users authenticating to the MWS:

a) MWS leveraging the departmental logon credential for authenticating GC workers (e.g. an Active Directory credential, bearing in mind that there are many separate departmental logon networks at this time)
b) MWS leveraging the existing GC myKEY credential (currently an Entrust-based PKI certificate)
c) MWS leveraging an existing GC-wide LDAP directory
d) MWS supporting SAML 2.0 for authentication (please comment on both thin and thick client implementations)
e) Other options that the GC should be considering for authenticating internal users to MWS

e) Full Cost Accounting and Cost of Ownership

Q-10

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The GC MWS must demonstrate the ability to reduce the costs currently associated with the publishing and management of web content in the GC. Note that high-level approximations and ranges are acceptable for costing estimates.

1) Do you believe Canada will receive the best value by seeking a single Managed Service Provider to provide all the services in the MWS? Or should Canada consider a best of breed solution for the various components? If the latter, how would you recommend segmenting the components for optimal delivery?

2) Given the information provided in the background section of this document, what issues would need to be considered in the calculation of total cost of ownership, specifically acquisition, implementation and operation that would help us baseline project costs? Specifically what Cost Elements should be factored into a financial evaluation of a solution?

3) Do you have data available on the costs (acquisition, implementation and operation) other organizations have incurred that have similar scale and complexity, and have adopted a model/solution aligned with your suggestions? Can you provide general estimations or ranges of costing for such projects?

4) What types of licensing models are available and appropriate for solutions of this complexity? Please provide comments on which pricing models have been successful in providing web management capabilities to large corporate customers.

5) Where OSS constitutes a part of a proposed solution, what licensing and service requirements must be considered?

6) Where third-party software constitutes part of a proposed solution, what licensing requirements must be considered? Please provide details related to the support of third-party components: source of support, respect of GC standards, method of delivery, etc.

7) The GC anticipates managing metrics for the entire GC website through the analytics system using a distributed approach to account management, content publishing and reporting. Please provide detailed estimates of the cost for the solution based on enterprise structures with 100, 500 and 1000 licensed system users, and a government-wide entity (enterprise) license. Assume that the enterprise license is used in each case over the lifecycle of the MWS.

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13. Format of Responses

a) Cover Page: If the response includes multiple volumes, respondents are requested to indicate on the front cover page of each volume the title of the response, the solicitation number, the volume number and the full legal name of the respondent.

b) Title Page: The first page of each volume of the response, after the cover page, should be the title page, which should contain:

   i. the title of the respondent's response and the volume number;
   ii. the name and address of the respondent;
   iii. the name, address and telephone number of the respondent's contact;
   iv. the date; and
   v. the RFI number.

c) Numbering System: Respondents are requested to prepare their response using a numbering system corresponding to the one in this RFI. All references to descriptive material, technical manuals and brochures included as part of the response should be referenced accordingly.

d) Response to be sent electronically: Canada requests that respondents submit their responses electronically by e-mail to the Contracting Authority defined below.

14. Enquiries

Because this is not a bid solicitation, Canada will not necessarily respond to enquiries in writing or by circulating answers to all potential suppliers. However, respondents with questions regarding this RFI may direct their enquiries to:

Contracting Authority:
Public Works and Government Services
Place de Portage, Phase III, 4C1
11 Laurier Street
Gatineau, Quebec K1A 0S5
Canada

Attention: Emily Dolan
Telephone: 819-956-1205
Facsimile: 819-953-3703
E-mail: Emily.Dolan@tpsgc-pwgsc.gc.ca

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15. Submission of Responses

a) Time and Place for Submission of Responses: Suppliers interested in providing a response should email their response to the Contracting Authority identified above by the time and date indicated on page 1 of this document.

b) Responsibility for Timely Delivery: Each respondent is solely responsible for ensuring its response is delivered on time to the Contracting Authority.

c) Identification of Response: Each respondent should ensure that its name and return address is provided and that the solicitation number and the closing date appear legibly in the subject line of the e-mail.

16. Definitions

Citizen Engagement Platform – A solution that provides the development, management and reporting of external engagement opportunities with citizens and stakeholders on policy and legislative topics. Functionality includes a variety of consultation tools (e.g. from surveys to workbooks to blogs); ability to publish content; collection of website user information via profiles; solicitation of input and feedback from participants; and reporting on outcomes.

Collaborative technologies – Tools and software designed to assist people involved in a common task to work together and achieve goals. Examples include tools to enable asynchronous and/or real-time tasks such as document sharing and versioning, discussion, conferencing, publishing, feedback, evaluation and survey.

Content Delivery Network – *A large distributed system of servers deployed in multiple data centres across the Internet which facilitates the serving of content to website users with high availability and high performance.*

Digital assets – Any form of content or media that is available electronically. May include publications, images, video, audio, etc.

Managed Service – A service that provides the delivery of the website infrastructure, including supporting software (for publishing, analytics and citizen engagement), content and digital asset storage, website hosting and technical maintenance activities.

Multi-tenant architecture – A software implementation in which a single instance supports a number of clients, in this case departments and agencies and other GC

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organizations. A multi-tenant implementation has the capacity to support the segregation of data and configurations between tenants.

Principal Publisher – A GC department or agency designated as the overseer of the design, structure, content and quality of the GC website. Will also be prime point of contact for the Managed Service Provider.

System User – A GC departmental or agency employee who utilizes the Managed Web Service.

Web Analytics Service – A software system that provides measurement, collection, analysis and reporting of internet data for purposes of understanding and optimizing web usage.

Web Publishing System – A software system that provides website authoring, collaboration, and administration tools to allow system users to manage and post website content to the public-facing website.

Web presence – An organization's complement of content, services, collaborative tools, sites and other secure and non-secure environments or platforms accessible via the Web.

Web Renewal Initiative – The creation of a single web entry point to the GC and the consolidation of GC web publishing processes and systems.

Website User – A visitor to the GC website. May include Canadian and non-Canadian citizens.

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Appendix A - Current State of GC Web

Infrastructure

The GC hosts numerous web systems comprising a variety of architectures, designs, products and management processes for the delivery of public-facing websites. These represent a significant portion of the GC's larger IT infrastructure footprint and are critical to GC's business operations.

There are many disparate IT infrastructures currently provisioning a multitude of web systems in the GC. Each department and agency operates with varying versions and release levels, and with varying levels of maintenance and security. Each web system is procured separately and operated and supported by individual department/agency management processes and IT support models.

At a high level, the following articulates some of the major areas of difference among the GC departments and agencies:

a. Primarily highly de-centralized implementations present varying architectures, which creates differences in functionality, performance, and interoperability. It also creates unnecessary duplications of equipment/software purchases and implementations, as well as maintenance, support, and security protection. Examples of these discrepancies in architecture are:
    i. Hardware: There are hundreds of servers of different makes and models located across the country in data centres, server farms and local offices.
    ii. Software: There are multiple web software solutions across and within Partner departments and agencies. The various systems are not fully compatible. Departments and agencies have different versions of software, and have adopted a variety of non-compatible processes and practices.
    iii. Versions: Both legacy and leading-edge products, with multiple versions, exist.
    iv. License Agreements: each department/agency negotiates and maintains separate license agreements.
b. Independent management of foundation infrastructures (including network and data centre resources) and IT support provided locally, with different departmental and agency support models (1st, 2nd and 3rd levels), contribute to varying service levels. Examples of these service levels are:
    i. Availability;
    ii. Disaster recovery procedures;
    iii. Backup procedures and recovery capabilities;

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  iv. Storage policies (e.g. capacity, retention period);
  v. Incident and change management;
  vi. Response time objectives; and
  vii. Support services.
  c. Varying application of security products (e.g. anti-virus, anti-spam, intrusion detection, etc.), which results in inconsistent approaches to security and data privacy;
  d. Individual determination and application of web policies (e.g. volume of content, data retention periods, etc.), and
  e. Various methods and technologies used for integrating business applications with web systems.

Analytics

The level and depth of web measurement and reporting varies from department to department; some smaller departments and agencies do not measure at this time. Among those departments and agencies who do perform web measurement, variety of tools are in use, including (but not limited to) Google Analytics, WebTrends, Urchin, Adobe SiteCatalyst, Nihou. Metrics are used to track web performance and usage, as well as to drive decision-making and support key initiatives, however current analytic tools do not produce meaningful metrics to tie to the cost of managing the GC website.

Web Publishing System

For external public-facing websites, the GC publishes and manages web content using a distributed departmental publishing and content management model. According to available statistics (2011), relative to 100+ GC departments and agencies:

  1. Total static websites: 1500
  2. Total social media accounts: 700
  3. Webpages (excluding weather and data.gc.ca): 4 million
  4. Total Canadian and non-Canadian users: 30 million+
  5. Approximate page views per year: 3 billion
  6. Approximate storage: 2 terabytes
  7. Approximate bandwidth per year: 720 terabytes
  8. Availability: 99.999%

The type and complexity of web publishing solutions in place vary from department to department. Some departments and agencies do not currently use a web publishing system. A variety of content management systems are in use, including (but not limited to) Interwoven TeamSite, Drupal and in-house custom-built solutions.

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Citizen Engagement

Departments and agencies post consultations online using their own tools and platforms, and post a notice and link to Consulting with Canadians, the central GC consultation portal. Among the departments and agencies that do perform interactive consultations, the tools utilized vary in recency and effectiveness. When a user selects a consultation, they are redirected to the departmental website where the consultation details are hosted. Once consultations are closed, the listings are archived on Consulting with Canadians however the links back to the departmental consultation pages remain active.

In some cases, the department archives the consultation without a link to the outcomes report; in other cases, the consultation is deleted from the site and the link from Consulting with Canadians is broken. Outcomes reports can be difficult to locate if they are not linked to from the consultations themselves, and may require the user to perform a search on the departmental website.