ADVANCE CONTRACT AWARD NOTICE (ACAN)

1.   Title

Expert-level Web Standards Developer

2.   Definition

An Advance Contract Award Notice (ACAN) allows departments and agencies to post a notice, for no less than fifteen (15) calendar days, indicating to the supplier community that it intends to award a good, service or construction contract to a pre-identified contractor. If no other supplier submits, on or before the closing date, a Statement of Capabilities that meets the requirements set out in the ACAN, the competitive requirements of the government's contracting policy have been met. Following notification to suppliers not successful in demonstrating that their Statement of Capabilities meets the requirements set out in the ACAN, the contract may then be awarded using the Treasury Board's electronic bidding authorities.

If other potential suppliers submit Statement of Capabilities during the fifteen calendar day posting period, and meet the requirements set out in the ACAN, the department or agency must proceed to a full tendering process on either the government's electronic tendering service or through traditional means, in order to award the contract.

3.   Background

The World Wide Web ("the Web") is a standards-based global information system invented as a means to enable everyone to use and communicate information globally and instantly, without undue barriers. Since its inception, the phenomenon of the Web has experienced unparalleled growth. The Web is not without barriers, however, and some of those barriers affect the ability of citizens to access, use and re-use the very open data that governments around the world have come to realize is vital to society and to everyday decision makers – in other words everyone.

Document-oriented information for humans is globally standardized as Hypertext Markup Language, or HTML. HTML's inventor Sir Tim Berners-Lee famously described it as being "for everyone". This is a key benefit of the (HTML) standard, and is at the heart of why the Web is so successful. Conversely, the lack of a similar consumer-level standard for map documents is the main reason for why open spatial data infrastructures have had less success than similar (but proprietary) commercial offerings.

Map Markup Language ("MapML") is an evolving collaborative specification that has as its objective to become the consumer-level standard for maps and geospatial information as documents, as an extension of HTML for maps. In this way, consumers will be able to access, combine and create spatial information that they need to make decisions on an unprecedented basis, using the tools that they already have access to: their Web browser. Just as the Web itself enables people of all abilities including absolute beginners, to create and use documents and applications, the addition of maps to the fabric of the Web will natively provide access to open spatial data infrastructures around the world, so that the investments Canadians have made in provisioning our CGDI will benefit all Canadians.

Web browser standards are global standards implemented on a scale that is hard to comprehend. As such, the barriers to adoption of new, or constraints on change, to existing standards is exceedingly and justifiably high. **The World Wide Web Consortium community manages such change through the "socialization of ideas"** https://www.w3.org/community/about/**. In other words, new ideas for the Web are subject to technological vetting in public fora, by Web community stakeholders. Change to Web standards happens** *only* **through this process**. The nature of the process is a combination of leadership and technical vetting ("iteration") and discussion. To succeed, the MapML initiative requires such leadership to come from within the Web standards community. This request seeks to procure the work of established Web standards community member(s) who have demonstrated a combination of technical and community leadership in the Web platform standards community, who will help lead MapML to become a native Web standard.

Natural Resources   Ressources naturelles
Canada   Canada

4.   Objective

The department of Natural Resources Canada (NRCan), Canada Centre for Mapping and Earth Observation Branch (CCMEO), GeoConnections Program, has a requirement for an expert-level Web standards developer with significant experience and demonstrated capabilities with the Scalable Vector Graphics (SVG), Cascading Style Sheets (CSS) and Accessible Rich Internet Applications (ARIA) standards.

5.   Requirements

The expert individual shall be able to provide leadership in developing and documenting the potential benefits of extending the Web browser platform to include maps and MapML as a native Web platform standard; the individual must have a demonstrated record of accomplishment of independently developing and documenting the benefits of new standards in the W3C Web platform milieu. The individual must have made recent and significant contributions to the graphical or accessibility standards (SVG, CSS, ARIA) of the World Wide Web Consortium / Web Hypertext Application Technology Working Group standards community.

The contractor is to execute identified tasks, including targeted research and analysis in support of the development, editing, testing, implementation and adoption of Map Markup Language for the evolution of the Web and CGDI. The task will require relating Web map requirements, as exemplified by Map Markup Language, to existing Web platform capabilities. In particular, the contractor shall help identify and reconcile the MapML specification with the gaps (new platform requirements arising as a consequence of maps' eventual implementation in the platform) and overlaps (platform capabilities which can be relied on and codified by maps and the MapML specification) of HTML, SVG, CSS and JavaScript.

Work shall be carried out at the request of the NRCan Project Authority as described in Task Authorizations. Tasks will range in duration and scope from those requiring one or two days to up to tasks requiring several weeks to complete.

Examples of tasks to be undertaken may include but are not limited to topics such as:

1. **Specify Web Map Accessibility.** Web map and individual geographic feature accessibility / geofencing, and the relationship between these concepts. How does "geofencing" relate to the user agent characteristics that users require of arbitrary everyday objects in respect of their location? Ho EN578-060502/168/ZTw can maps and features be incorporated into the browser accessibility (ARIA) ecosystem?
2. **Prototype development and demonstration**
3. **Web Platform Test development**
4. **Browser integration ease of development.** Has MapML made the right choices with respect to HTML extensions? What could / should be done differently in order to make MapML 'fit' non-disruptively / seamlessly into the declarative processing environment of the browser?
5. **Standards development.** What breakdown of standards should be used to target MapML effectively to individual browser teams, e.g. Document Object Model (DOM) team, JavaScript team, CSS / animation team etc. Should MapML be described in one single standard document and if so what should the outline of that document be?
6. **Collaboration.** Creating and fostering a collaborative environment on the Web for MapML, for example by managing GitHub issues, contributing to and managing related pull requests for MapML and related standards over the internet.
7. **Communications development**
   Articles or blog posts about community activity and progress
   Presentations about community activity and progress
   Representation over email etc. of MapML in W3C Community Groups, such as Web Incubator Community Group and Maps for HTML Community Group.
8. **Other tasks**

5.1   Communications

Apart from examples of communications-specific tasks listed above, there is a requirement for on-going communication between the contractor and the relevant development communities. The expert work performed by the contractor in the course of this project must not be done in isolation. All work must be executed collaboratively with both the browser/standards development communities through the appropriate online forums (Github commits/issues, World Wide Web Consortium and Open Geospatial Consortium wikis, email lists etc).

5.2 Intellectual Property

The objective of this development is to create an open standard for global use. As such, the Government of Canada shall retain intellectual property created by the contractor in the execution of the tasks.

The solution(s) developed for NRCan via this contract shall be open standards based. The solution development shall be carried out in a co-development, international open standards consortium environment i.e. by members of the World Wide Web Consortium (W3C) Maps for HTML Community Group and / or the W3C Web Incubator Community Group, such that NRCan can leverage the requirements and solutions for communities in Canada and internationally. The solution development for NRCan should also inform future open standards developments and implementations.

5.3 Task Authorization

The project management approach of this contract will be that of Task Authorization. NRCan requires the services of a graphical Web standards expert to perform tasks on an as-required basis in support of refining, adapting and representing Map Markup Language and related specifications with the Web browser and Web mapping communities.

The overall objectives of the project are two-fold:

1. Integration of applicable parts of Web standards for vector graphics, stylesheets and accessibility into the overall scope of the proposed Map Markup Language and <map> and <layer> proposals for HTML in the World Wide Web Consortium (W3C) standards.
2. Browser-developer community engagement, communication and collaboration on an on-going basis, with a focus on integration of maps into the Web platform, especially in consideration of styling, accessibility and progressive enhancement.

6. Period of the Contract

It is anticipated that the contract will begin upon date of award and end **March 31, 2020**.

7. Estimated Cost

The approximate cost of this requirement will not exceed $113,000.00 CAD, excluding applicable taxes.

8. Trade Agreements

Applicable Limited Tendering Provision under NAFTA (Article 1016.2)
1016.2(b) - where, for works of art, or for reasons connected with the protection of patents, copyrights or other exclusive rights, or proprietary information or where there is an absence of competition for technical reasons, the goods or services can be supplied only by a particular supplier and no reasonable alternative or substitute exists;

Applicable Limited Tendering Provision under Canada-Chile (Article Kbis-09)
Kbis-09 (b) - where, for works of art, or for reasons connected with the protection of patents, copyrights or other exclusive rights, or proprietary information or where there is an absence of competition for technical reasons, the goods or services can be supplied only by a particular supplier and no reasonable alternative or substitute exists;

Applicable Limited Tendering Provision under CFTA (Article 513.2.iii)
506.12(b) – where there is an absence of competition for technical reasons and the goods or services can be supplied only by a particular supplier and no alternative or substitute exists;

Applicable Limited Tendering Provision under Canada-Honduras (Article 17.11)
17.11.2 b) a good or service being procured can be supplied only by a particular supplier and a reasonable alternative or substitute does not exist because:
(i) the good or service is a work of art,
(ii) the good or service is protected by a patent, copyright or other exclusive intellectual property right, or

(iii) there is an absence of competition for technical reasons;

Applicable Limited Tendering Provision under Canada-Panama (Article 16.10)
16.10.1b) a good or service being procured can be supplied only by a particular supplier and a reasonable alternative or substitute does not exist because:
(i) the good or service is a work of art,
(ii) the good or service is protected by a patent, copyright or other exclusive intellectual property right, or
(iii) there is an absence of competition for technical reasons;

9.   Exception to the Government Contracts Regulations and applicable trade agreements

Sole Source Justification - Exception of the Government Contract Regulations (GCR):

(d) Only one person or firm is capable of performing the contract

The Supplier must be able to meet all of the following criteria:

- Must be an expert in developing graphical Web standards;
- Must have experience as a lead editor on the Scalable Vector Graphics Web Standard;
- Must be an active contributing member of the Web Standards community;
- Must be a champion of MapML

The selected Supplier is the only vendor able to meet all of the above criteria as well as meet all of the requirements described in Section 5 – Project Requirements.

10.   Name of the Proposed Contractor

Amelia Bellamy-Royds

11.   Inquiries on Submission of Statement of Capabilities

Suppliers who consider themselves fully qualified and available to provide the services/goods described herein, may submit a Statement of Capabilities in writing, preferably by e-mail, to the contact person identified in this Notice on or before the closing date and time of this Notice. The Statement of Capabilities must clearly demonstrate how the supplier meets the advertised requirements.

12.   Closing Date

Closing Date: January 4, 2019
Closing Time: 2:00 p.m. EST

13.   Contract Authority

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