# RETURN BIDS TO: RETOURNER LES SOUMISSIONS À:

Bid Receiving - PWGSC / Réception des soumissions - TPSGC 11 Laurier St. / 11, rue Laurier Place du Portage , Phase III Core 0B2 / Noyau 0B2 Room 103 / Pièce 103 Gatineau, Québec K1A 0S5

Bid Fax: (819) 997-9776

REQUEST FOR PROPOSAL
DEMANDE DE PROPOSITION

Proposal to: Public Works and Government Services Canada

We hereby offer to sell to Her Majesty the Queen in right of Canada, in accordance with the terms and conditions set out herein, referred to herein, or attached hereto, the goods, services, and construction listed herein and on any attached sheets at the price(s) set out therefor.

Proposition au: Travaus Publics et Services Gouvernementaux Canada

Nous offrons par la présente de vendre à la Reine du chef du Canada, aux conditions énoncées ou incluses par reference dans la présente et aux annexes ci-jointes, les biens, services et construction énumérés ici sur toute feuille ci-annexée, au(s) prix indiqué(s).

### **Comments - Commentaires**

Vendor/Firm Name and Address Raison sociale et adresse du fournisseur/de l'entrepreneur

Issuing Office - Bureau de distribution
Innovation Procurement Directorate / Direction
des achats innovateurs
10 Wellington Street / 10, rue Wellington
Terrasses de la Chaidière
Floor 4 / Étage 4
Gatineau, Québec K1A 0S5

Title-Sujet				
Enhanced Maritime Situational Awareness GIS System /				
Connaissance améliorée de la s	situation ma	aritin	ne solution de SIG	
Solicitation No N° de l'invitation	Date			
T8840-180119/A	29 August	/ Ao	ût 2018	
Client Reference No Nº de référence	e du client			
T8840-18-0119				
File No. – N° de dossier	CCC No./N°	CC -	FMS NO. / N° VME	
075ss. T8840-180119				
Solicitation Closes - L'invitat	ion prend	fin	Time Zone	
	-		Fuseau horaire Eastern Standard Time	
at – à 2:00 PM			EST	
on – le 9 October / Octobr	e 2018		Heure normale de l'Est HNE	
F.O.B. – F.A.B				
Plant-Usine : ☐ Destination: x	Other-Autr	<b>.</b> .□		
Fidit-Osine. Destination. X	Other-Autr	е. —		
Address Enquiries to: - Adresser toutes guestions à:  Buyer Id – Id de l'acheteur				
April Campbell		075		
Telephone No N° de téléphone FAX No N° de FAX				
			-997-2229	
Destination of Goods, Services and Construction:				
Destinations des biens, services et construction :				
6 (6 14)				
Specified Herein				
Précisé dan	Précisé dans les présentes			

Instructions : See Herein Instructions : voir aux présentes

Delivery Required - Livraison exigée	Delivery Offered - Livraison
See Herein	proposée
Vendor/Firm Name and Address	
Raison sociale et adresse du fourniss	eur/de l'entrepreneur
Telephone No N° de telephone	
Facsimile No N° de télécopieur	
-	
Name and title of person authorized to	sign on behalf of Vendor/Firm
(type or print)	
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Nom et titre de la personne autorisée l'entrepreneur (taper ou écrire en cara	
Tentrepreneur (taper ou echre en cara	icteres a imprimerie)
<u> </u>	
Signature	Date



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#### **PART 1 - GENERAL INFORMATION**

#### 1.1 Summary

Public Works and Government Services Canada (PWGSC), on behalf of Transport Canada (TC), has a requirement for a Geographic Information System solution (GIS Solution) to enhance Maritime situational awareness in ten selected coastal communities. Each coastal community will access and use the GIS Solution online; however, the GIS Solution must also be available offline on computing devices for use where no internet connectivity exists. This pilot project is aligned to the national Oceans Protection Plan to improve marine safety and responsible shipping, protecting Canada's marine environment.

The procurement strategy includes a phased evaluation, incorporating the award of up to five contracts for the purpose of demonstrating the technical functionalities and capabilities of the bidders' proposed solution and the final contract award of the selected solution to operate in the ten coastal communities.

The initial period of the contract is 2 months with an option to extend the contract by up to one period of 14 months, four periods of one year each and one transition period of 4 months.

The ten coastal communities are:

- 1) Haida Nation, British Columbia;
- 2) Gitga'at Nation, British Columbia;
- 3) the T'Souke First Nation, British Columbia;
- 4) Pacheedat First Nations, British Columbia;
- 5) Tuktoyaktuk, Inuvialuit Settlement Area, Northwest Territories;
- 6) Cambridge Bay, Nunavut;
- 7) Kahnawake First Nation, Quebec;
- 8) Essipit First Nation, Quebec;
- 9) Nain, Nunatsiavut Settlement Area, Labrador; and,
- 10) Maritime Aboriginal Peoples Council, Truro, Nova Scotia.

### 1.1.1 Trade Agreements

The requirement is subject to the provisions of the World Trade Organization Agreement on Government Procurement (WTO-AGP), the North American Free Trade Agreement (NAFTA), the Canada-European Union Comprehensive Economic and Trade Agreement (CETA), and the Canadian Free Trade Agreement (CFTA).

### 1.1.2 Comprehensive Land Claims Agreements

This procurement is subject to the following Comprehensive Land Claims Agreement(s):

- Inuvialuit Final Agreement Tuktoyaktuk
- Nunavut Land Claims Agreement Cambridge Bay
- Labrador Inuit Land Claims Agreement Nain

# 1.1.3 Federal Contractor's Program for Employment Equity

The Federal Contractors Program (FCP) for employment equity applies to this procurement; refer to Part 5 – Certifications and Additional Information, Part 6 - Resulting Contract Clauses and the attachment titled Federal Contractors Program for Employment Equity - Certification.

#### 1.1.4 E-Post Connect

This bid solicitation allows bidders to use the e-post Connect service provided by Canada Post Corporation to transmit their bid electronically. Bidders must refer to Part 2 entitled Bidder Instructions, and Part 3 entitled Bid Preparation Instructions, of the bid solicitation, for further information.

# 1.2 Debriefings

Bidders will be provided with a written debriefing a on the results of the bid solicitation process upon the completion of each phase of the evaluation. Bidders should make the request to the Contracting Authority within 15 working days from receipt of the results of the bid solicitation process to obtain additional information, if appropriate.

#### **PART 2 - BIDDER INSTRUCTIONS**

### 2.1 Standard Instructions, Clauses and Conditions

All instructions, clauses and conditions identified in the bid solicitation by number, date and title are set out in the <u>Standard Acquisition Clauses and Conditions Manual</u> (https://buyandsell.gc.ca/policy-and-guidelines/standard-acquisition-clauses-and-conditions-manual) issued by Public Works and Government Services Canada.

Bidders who submit a bid agree to be bound by the instructions, clauses and conditions of the bid solicitation and accept the clauses and conditions of the resulting contract.

The <u>2003</u> (2018-05-22) Standard Instructions - Goods or Services - Competitive Requirements, are incorporated by reference into and form part of the bid solicitation, and are amended as follows:

a) Section 05 (2018-05-22) Submission of Bids, subsection 4:

**Delete:** Bids will remain open for acceptance for a period of not less than 60 days from the closing date of the proposal solicitation, unless specified otherwise in the proposal solicitation.

**Insert**: Bids will remain open for acceptance for a period of not less than 180 days from the closing date of the proposal solicitation.

#### 2.2 Submission of Bids

Bids must be submitted only to the Public Works and Government Services Canada (PWGSC) Bid Receiving Unit specified below by the date and time indicated on page 1 of the bid solicitation.

Due to the nature of the bid solicitation, bids transmitted by facsimile to PWGSC will not be accepted.

#### 2.3 Former Public Servant

Contracts awarded to former public servants (FPS) in receipt of a pension or of a lump sum payment must bear the closest public scrutiny, and reflect fairness in the spending of public funds. In order to comply with Treasury Board policies and directives on contracts awarded to FPSs, bidders must provide the information required below before contract award. If the answer to the questions and, as applicable the information required have not been received by the time the evaluation of bids is completed, Canada will inform the Bidder of a time frame within which to provide the information. Failure to comply with Canada's request and meet the requirement within the prescribed time frame will render the bid non-responsive.

#### **Definitions**

For the purposes of this clause,

"former public servant" is any former member of a department as defined in the <u>Financial</u> <u>Administration Act</u>, R.S., 1985, c. F-11, a former member of the Canadian Armed Forces or a former member of the Royal Canadian Mounted Police. A former public servant may be:

- a. an individual;
- b. an individual who has incorporated;
- c. a partnership made of former public servants; or
- d. a sole proprietorship or entity where the affected individual has a controlling or major interest in the entity.

"lump sum payment period" means the period measured in weeks of salary, for which payment has been made to facilitate the transition to retirement or to other employment as a result of the implementation of various programs to reduce the size of the Public Service. The lump sum payment period does not include the period of severance pay, which is measured in a like manner.

"pension" means a pension or annual allowance paid under the <u>Public Service Superannuation Act</u> (PSSA), R.S., 1985, c. P-36, and any increases paid pursuant to the <u>Supplementary Retirement Benefits Act</u>, R.S., 1985, c. S-24 as it affects the PSSA. It does not include pensions payable pursuant to the <u>Canadian Forces Superannuation Act</u>, R.S., 1985, c. C-17, the <u>Defence Services Pension Continuation Act</u>, 1970, c. D-3, the <u>Royal Canadian Mounted Police Pension Continuation Act</u>, 1970, c. R-10, and the <u>Royal Canadian Mounted Police Superannuation Act</u>, R.S., 1985, c. R-11, the <u>Members of Parliament Retiring Allowances Act</u>, R.S. 1985, c. M-5, and that portion of pension payable to the <u>Canada Pension Plan Act</u>, R.S., 1985, c. C-8.

# Former Public Servant in Receipt of a Pension

As per the above definitions, is the Bidder a FPS in receipt of a pension? Yes ( ) No ( )

If so, the Bidder must provide the following information, for all FPSs in receipt of a pension, as applicable:

- a. name of former public servant;
- b. date of termination of employment or retirement from the Public Service.

By providing this information, Bidders agree that the successful Bidder's status, with respect to being a former public servant in receipt of a pension, will be reported on departmental websites as part of the published proactive disclosure reports in accordance with <a href="Contracting Policy Notice">Contracting Policy Notice</a>: 2012-2 and the Guidelines on the Proactive Disclosure of Contracts.

#### **Work Force Adjustment Directive**

Is the Bidder a FPS who received a lump sum payment pursuant to the terms of the Work Force Adjustment Directive? Yes ( ) No ( )

If so, the Bidder must provide the following information:

- a. name of former public servant;
- b. conditions of the lump sum payment incentive;
- c. date of termination of employment;
- d. amount of lump sum payment;
- e. rate of pay on which lump sum payment is based;
- f. period of lump sum payment including start date, end date and number of weeks;

g. number and amount (professional fees) of other contracts subject to the restrictions of a work force adjustment program.

For all contracts awarded during the lump sum payment period, the total amount of fees that may be paid to a FPS who received a lump sum payment is \$5,000, including Applicable Taxes.

### 2.4 Enquiries - Bid Solicitation

All enquiries must be submitted in writing to the Contracting Authority via email (april.campbell@tpsgc-pwgsc.gc.ca) no later than seven calendar days before the bid closing date. Enquiries received after that time may not be answered. Questions submitted through E-Post Connect will receive no response.

Bidders should reference as accurately as possible the numbered item of the bid solicitation to which the enquiry relates. Care should be taken by Bidders to explain each question in sufficient detail in order to enable Canada to provide an accurate answer. Technical enquiries that are of a proprietary nature must be clearly marked "proprietary" at each relevant item. Items identified as "proprietary" will be treated as such except where Canada determines that the enquiry is not of a proprietary nature. Canada may edit the question(s) or may request that the Bidder do so, so that the proprietary nature of the question(s) is eliminated and the enquiry can be answered to all Bidders. Enquiries not submitted in a form that can be distributed to all Bidders may not be answered by Canada.

# 2.5 Bidders Conference – details to follow

date and time).

A bidders' conference / teleconference will be held at The conference will begin at (insert time), in of the requirement outlined in the bid solicitation will will be answered. It is recommended that bidders representative.	(insert location/room numbe be reviewed during the conference a	r). The scope nd questions
Bidders are requested to communicate with the Contrattendance. Bidders should provide, in writing, to the	,	

Any clarifications or changes to the bid solicitation resulting from the bidders' conference will be included as an amendment to the bid solicitation. Bidders who do not attend will not be precluded from submitting a bid.

who will be attending and a list of questions or issues they wish to table no later than \_\_\_\_\_ (insert

#### PART 3 - BID PREPARATION INSTRUCTIONS

### 3.1 Bid Preparation Instructions

#### 3.1.1 Electronic Submission

If the Bidder chooses to submit its bid electronically, Canada requests that the Bidder submits its bid in accordance with section 08 of the 2003 standard instructions. Bidders must provide their bid in a single transmission. The E-post Connect service has the capacity to receive multiple documents, up to 1GB per individual attachment.

The bid must be gathered per section and separated as follows:

Section II: Technical Bid Section III: Financial Bid Section III: Certifications

Section IV: Additional Information

# 3.1.2 Paper Submission

If the Bidder chooses to submit its bid in hard copies, Canada requests that the Bidder submits its bid in separately bound sections as follows:

Section I: Technical Bid (6 hard copies)
Section II: Financial Bid (1 hard copy)
Section III: Certifications (1 hard copy)

Section IV: Additional Information (1 hard copy)

# 3.1.3 Multiple Delivery Methods

If the Bidder is simultaneously providing copies of its bid using multiple acceptable delivery methods, and if there is a discrepancy between the wording of any of these copies and the electronic copy provided through E-post Connect service, the wording of the electronic copy provided through E-post Connect service will have priority over the wording of the other copies.

#### 3.1.4 General

Prices must appear in the financial bid only. No prices must be indicated in any other section of the bid.

In April 2006, Canada issued a policy directing federal departments and agencies to take the necessary steps to incorporate environmental considerations into the procurement process <u>Policy on Green Procurement</u> (https://www.tbs-sct.gc.ca/pol/doc-eng.aspx?id=32573). To assist Canada in reaching its objectives, bidders should:

1) use 8.5 x 11 inch (216 mm x 279 mm) paper containing fibre certified as originating from a sustainably-managed forest and containing minimum 30% recycled content; and

2) use an environmentally-preferable format including black and white printing instead of colour printing, printing double sided/duplex, using staples or clips instead of cerlox, duotangs or binders.

#### Section I: Technical Bid

In their technical bid, Bidders should demonstrate their understanding of the requirements contained in the bid solicitation and explain how they will meet these requirements. Bidders should demonstrate their capability and describe their approach in a thorough, concise and clear manner for carrying out the work.

The technical bid should address clearly and in sufficient depth the points that are subject to the evaluation criteria against which the bid will be evaluated. Simply repeating the statement contained in the bid solicitation is not sufficient. In order to facilitate the evaluation of the bid, Canada requests that Bidders address and present topics in the order of the evaluation criteria under the same headings. To avoid duplication, Bidders may refer to different sections of their bids by identifying the specific paragraph and page number where the subject topic has already been addressed.

#### Section II: Financial Bid

- 3.1.4 Bidders must provide firm, all-inclusive hourly rates for each category of work described at Appendix 1 to Annex A.
- 3.1.5 Bidders must submit their financial bid in accordance with the Financial Bid Presentation Sheet at Attachment 1 to Part 3.
- 3.1.6 For Canadian-based bidders, prices must be in Canadian funds, Applicable Taxes excluded, and Canadian customs duties and excise taxes included.

For foreign-based bidders, prices must be in Canadian funds, Applicable Taxes and Canadian customs duties and excise taxes excluded. Canadian customs duties and excise taxes payable by Canada will be added, for evaluation purposes only, to the rates and prices submitted by foreign-based bidders.

For the purpose of the RFP, bidders with an address in Canada are considered Canadian-based bidders and bidders with an address outside of Canada are considered foreign-based bidders.

- 3.1.7 The maximum funding available for the work at Annex A, Statement of Work, Part 1, is \$100,000.00 (Canadian funds, Applicable Taxes extra). Bids valued in excess of this amount will be considered non-responsive. This disclosure does not commit Canada to pay the maximum funding available.
- 3.1.8 The maximum funding available for the Part 2 Contract resulting from the bid solicitation is \$2,500,000.00 (Canadian funds, Applicable Taxes extra). Bids valued in excess of this amount will be considered non-responsive. This disclosure does not commit Canada to pay the maximum funding available.

### 3.2 Electronic Payment of Invoices – Bid

If you are willing to accept payment of invoices by Electronic Payment Instruments, complete Annex C Electronic Payment Instruments, to identify which ones are accepted.

If Annex C, Electronic Payment Instruments is not completed, it will be considered as if Electronic Payment Instruments are not being accepted for payment of invoices.

Acceptance of Electronic Payment Instruments will not be considered as an evaluation criterion.

### 3.3 Exchange Rate Fluctuation

The requirement does not offer exchange rate fluctuation risk mitigation. Requests for exchange rate fluctuation risk mitigation will not be considered. All bids including such provision will render the bid non-responsive.

#### Section III: Certifications

Bidders must submit the certifications and additional information required under Part 5.

### Section IV: Additional Information

### 3.4 Procurement Business Number

In accordance with article 02 of the Standard Instructions 2003, suppliers are required to have a Procurement Business Number (PBN) prior to contract award in order to receive a PWGSC contract. Suppliers may register for a PBN online at Supplier Registration Information (https://srisupplier.contractscanada.gc.ca). For non-Internet registration, suppliers may contact the InfoLine at 1-800-811-1148 to obtain the telephone number of the nearest Supplier Registration Agent.

PBN:	
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### 3.5 Applicable Laws

Any resulting contract must be interpreted and governed, and the relations between the parties determined, by the laws in force in **Ontario**.

The Bidder may, at its discretion, substitute the applicable laws of a Canadian province or territory of its choice without affecting the validity of its bid, by deleting the name of the Canadian province or territory specified and inserting the name of the Canadian province or territory of its choice. If no change is made, it acknowledges that the applicable laws specified are acceptable to the Bidder.

Applicable laws:	
------------------	--

# 3.6 Bidder's Representative

The Bidder's representative must be able to sign the contract and legally bind the entity.

Name	Title	
Legal Name of Entity	Operating As	
Address		
Address		
Telephone	 Email	

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PUBLIC WORKS AND GOVERNMENT SERVICES CANADA

#### PART 4 - EVALUATION PROCEDURES AND BASIS OF SELECTION

#### 4.1 Evaluation Procedures

- (a) Bids will be assessed in accordance with the Phased Evaluation detailed below.
- (b) A team composed of representatives of Canada will evaluate the bids for Phase 1 and Phase 2. The evaluation team for Phase 3 will include representatives from each of the ten coastal communities.

### 4.2 Phased Evaluation

Title	Ref.	Description	Evaluation
Phase 1 – Pre-Qualification	4.3.3	Mandatory Technical Requirements Pass/Fail	
	4.3.4	Point Rated Technical Criteria	Score / 58
	3.1.7	Maximum budget	Pass/Fail
Phase 2 – Technical	4.4.1	Mandatory Technical Solution Requirements	Pass/Fail
Solution	4.4.2	Point Rated Technical Solution Criteria	Score / 185
Phase 3 – Technical	4.5.1	Mandatory Technical Solution Demonstration	Pass/Fail
Solution Demonstration	4.5.2	Point Rated Technical Solution Demonstration	Score / 55
Financial	4.6	Mandatory Financial Criteria	Pass/Fail
	3.1.8	Maximum budget	Pass/Fail
Final Technical Score	4.8	Sum of Phases 2 and 3 scores	Score / 240

## 4.2.1 Phase 1: Pre-Qualification

To be declared responsive, a bid must:

- a) comply with all the requirements of the bid solicitation;
- b) meet all mandatory technical requirements stipulated in 4.3.3; and,
- c) obtain the required minimum of 40.5 points overall for the technical evaluation criteria stipulated in 4.3.4 which are subject to point rating. The rating is performed on a scale of 58 points.

Bids not meeting a), b), or c) will be declared non-responsive.

Bids will be ranked by score from highest to lowest. Canada may award up an interim contract of 2-month duration with a value of up to \$100,000 each, applicable taxes extra to undertake the work defined at Annex A, Statement of Work, Part 1 and Phase 2 Technical Solution Evaluation to the top five ranked Bidders.

In the event a Bidder withdraws their bid, or the bid is set aside, Canada will offer the next highest ranked bidder an interim contract.

In the event of a tie score(s) that impacts the ranking, the Bidder with the lower bid price for Part 1 detailed at Attachment 1 to Part 3, Financial Bid Presentation Sheet will be awarded the interim contract.

#### 4.2.2 Phase 2: Technical Solution Evaluation

Bids will be assessed by Canada against the criteria detailed at 4.4.1. Bids must meet the mandatory technical solution requirements to be considered further. Bidders who have achieved a minimum score of 129.5 on a scale of 185 for the technical solution point rated criteria to be invited to proceed to Phase 3.

### 4.2.3 Phase 3: Technical Solution Demonstration

Canada will assess the mandatory technical solution demonstration requirements detailed at 4.5.1. Up to 30 members of the ten Indigenous coastal communities and Canada will assess the bids the technical solution demonstration point rated criteria detailed at 4.5.2. Bidders must meet the mandatory requirements to be considered further.

# 4.3 Phase 1: Pre-Qualification Evaluation

### 4.3.1 Definitions

The following definitions apply to the criteria defined for Phase 1.

Term	Definition
Agile Project Management	An iterative process that focuses on customer value first, team interacting over tasks, and adapting to current business reality rather than following a prescribed plan; how you deliver high value and technical quality within your time and budget constraints.
Dock	Connect a computing device (such as a conventional desktop computer, a pad computer or a smartphone) to a network or cloud server, for the purpose of uploading local data the computing device has been storing to the network server, or for the purpose of updating the local computing device with network information from the server.
Large scale GIS solution	A Geographic Information System (GIS) solution that includes a minimum of:  - 200 users;  - 5 distinct local area networks (LAN) and Wide Area Networks (WAN) user endpoints;  - 100 TeraBytes of stored data;  - 2 GIS processing servers.
Recent	Within the last four years from date of solicitation.
Undock	Disconnect a computing device (such as a conventional desktop computer, a pad computer or a smartphone) from a network or cloud server, for the purpose of storing local data on a computing device without needing to maintain a network connection in an area underserved by the internet, or for the purpose of bringing information obtained from earlier internet connection sessions into an area underserved by the internet.

#### 4.3.2 Instructions

For the Phase 1 evaluation criteria, Bidders should provide the following information to demonstrate they meet the criteria detailed below:

- Project description
- Name of client
- Duration, including the start and end dates, by month/year
- Dollar value
- A summary of the work performed
- As applicable, details of the solution including the name of the GIS product/platform and whether it was a custom product/platform or an existing commercial product/platform
- Client Lead for the project to be contacted for the purposes of validation only, including title, telephone and email.

The same projects and experience may be used for multiple criteria.

# 4.3.3 Mandatory Technical Requirements

lka na	Description		
Item	Description		
MTC-1	The Bidder must demonstrate their experience implementing up to three large scale GIS Solution within the past three years from date of solicitation that includes the following elements:		
	a) multiple sites; and,     b) a user base spanning multiple geographical locations; and,		
	c) hosting services (e.g., self-hosted, via a 3rd party provider, cloud-based).		
	If more than 3 projects are submitted in response to this criterion, Canada will only evaluate the first three listed in the Bid.		
MTC-2	The Bidder must demonstrate experience in customizing one or more large scale GIS solutions, that includes all of the following:		
	- Multi-lingual product support (e.g. data, labels);		
	- Multi-lingual end-users support;		
	- Developing a user guide;		
	- User training;		
	- User site installation and setup;		
	- Implementing enhancements and change requests;		
	- Providing support coverage during normal working hours for multiple time zones		
	(time zone considerations);		
	- Providing support for a period greater than six months.		
	Bidders may submit up to four projects to demonstrate the elements above. If additional		
	projects are submitted, Canada will only review the first four in order of appearance.		

Item	Description
MTC-3	The Bidder must demonstrate in its bid that the proposed Project Manager has experience in delivering a large-scale GIS project as defined above.
MTC-4	The Bidder must define the minimum system requirements for the proposed GIS solution, including both hardware and software, as required.

# 4.3.4 Point Rated Technical Criteria

Item	Descriptio	n	
RTC-1	The Bidder should demonstrate recent experience (in addition to the projects submitted in MTC-1) in the implementation of large scale GIS project solutions that include the following elements:		
	b) have	nulti-site; and, e a user base spanning multiple geographical locations; and, ting services (e.g., self-hosted, via a 3rd party provider, cloud-based).	
		ay submit up to six projects to demonstrate the elements above. If more than 6 re submitted in response to this criterion, Canada will only evaluate the first 6 listed	
	a) b) c)	1 point per project to a maximum of 3 points 1 point per project to a maximum of 4 points 1 point per project to a maximum of 3 points	
		1 point for every project that demonstrates 2 elements in a single project to a maximum of 3 points 2 points for every project that demonstrates 3 elements in a single project to a maximum of 5 points	
		Total available points: 18	
RTC-2	The Bidder should demonstrate recent experience in delivering a solution following an agile methodology, such as Extreme Programming (XP), Scrum, Crystal, Dynamic Systems Development Method (DSDM), Lean Development, and Feature-Driven Development (FDD).		
	Bidders may submit up to five projects to demonstrate the above criteria. If more than five projects are submitted, Canada will only the first five listed in the bid.		
	2 points	Per project, up to a maximum of 10 points	
RTC-3	The Bidder should demonstrate experience in customizing or configuring more than one large scale GIS project that includes all of the following elements:		
	<ul> <li>Multi-lingual product support (data, labels, etc.);</li> <li>Developing a custom user guide;</li> <li>User training;</li> <li>Site installation and setup;</li> <li>Implementing enhancements and change requests.</li> </ul>		

Item	Description			
	•	ders may submit up to five projects to demonstrate the above criteria. If more than five jects are submitted, Canada will only the first five listed in the bid.		
	2 points Per pr	oject, up to a maximum of 10 po	ints	
RTC-4	in remote areas, o		olementing a solution where users were located d internet connectivity (bandwidth less than 4	
	1 point Per pr	oject to a maximum of 5 points.		
RTC-5	From the list belo greatest risk to th		a maximum of three items representing the	
	Potential project i	risks:		
	- Geograph - Data integ - Budget - Scope - Releases/ - Resources	gration updates	<ul> <li>Training</li> <li>Connectivity</li> <li>Timelines</li> <li>Limited level of user knowledge</li> <li>User support</li> </ul>	
	points a) Do as	<ul> <li>Comprehensive description of project risk, selection rationale and well-reasoned assumptions (1 point)</li> <li>Strong description of project risk, selection rationale and reasonable assumptions (0.5 points)</li> <li>Weak or no description of project risk, selection rationale or assumptions (0 Points)</li> </ul>		
	<ul> <li>Weak or no description of probability (0 Points)</li> <li>Up to 3         points</li> <li>For each risk identified, the proposal should provide a mitigation strategy that         demonstrates its potential to reduce or alleviate the probability of the risk occurring and         reduces the impact should it occur.</li> <li>Comprehensive strategy to reduce or alleviate probability and impact (1 point)</li> <li>Good strategy to reduce or alleviate probability and impact (.5 points)</li> </ul>			
RTC-6	<ul> <li>Weak or no strategy to reduce or alleviate probability and impact (0 points)</li> <li>The Bidder's proposal should provide a Work Breakdown Structure (WBS) to conduct the work required in Part 1 of Annex A in order to meet the mandatory requirements identified at 4.4.1 below, and achieve a minimum of 70% on the point rated criteria at 4.4.2 within the 2 month timeframe. The Bidder should address the following required elements:         <ul> <li>Allocation of Resources by Category of Work and level of effort in hours for each of the mandatory requirements and the point rated criteria.</li> </ul> </li> </ul>			

Item	Description	n		
	6 points	The Bidder's WBS demonstrates its ability to meet all of the mandatory requirements and achieve a score of 177.7 to 185 on the point rated criteria.		
4 points The Bidder's WBS demonstrates its ability to meet all of the mandatory require achieve a score of 164.66 to 177.6 on the point rated criteria.				
	2 points	The Bidder's WBS demonstrates its ability to meet all of the mandatory requirements and achieve a score of 151.8 to 164.65 on the point rated criteria.		
	1 points The Bidder's WBS demonstrates its ability to meet all of the mandatory requirement achieve a score of 138.75 to 151.7 on the point rated criteria.			
Total av	Total available points: 58.0			
Minimu	ım required	score: 40.5		

# 4.4 Phase 2: Technical Solution Evaluation

# **4.4.1** Mandatory Technical Solution Requirements

Item	Description
TS-1	The Bidder must grant a temporary access and use license to the GIS Solution via username and password for a two week period. The solution must be functional against a live data store and be usable by the evaluators. Potential sources of information are provided at Appendix 2 to Annex A and may be used to demonstrate the solution.
TS-2	The Bidder must provide the following:
	<ul><li>a) a detailed architecture diagram with a textual explanation of the items on the diagram;</li><li>b) a user guide;</li><li>c) setup instructions, if required.</li></ul>
TS-3	The proposed solution must demonstrate the capability to support both official languages of Canada as evidenced by one or more of the following:  User language preference settings;  Language Toggle mechanism;  On-screen labels and information displayed according to the selected language;  Data input fields to capture information in both languages.
TS-4	The solution must make use of plain language.
TS-5	The solution must allow the user to, at the click of a button or keystroke or mouse scroll, zoom in/out, pan, zoom to previous extent, zoom to full extent, and zoom to selected feature(s).
TS-6	The solution must allow the user to specify the scale of the geographical map view.
TS-7	The solution must be able to display points, lines or cells on the geographical map view.
TS-8	The solution must allow the user to select geospatial features by clicking or dragging a box and easily clear the selection.

Item	Description
TS-9	The solution must provide a measuring tool to allow the measurement of distances and areas on the map.
TS-10	The solution must provide the user with the ability to show or select features on the map by location and feature attribute filters.
TS-11	The solution must allow the user to set an Area of Interest (AOI) on the geographical map view.
TS-12	The solution must have the capability to provide information in relation to points on the geographical map view based on geospatial data such as postal code, latitude/longitude, IP address.
TS-13	The solution must allow users to configure: fonts, labels, symbolizers (e.g. vessels), visibility and location of specific panels, sub-panels and functionality.
TS-14	The solution must have the capability to overlay static information, including external sources, upon the geographical map view.
TS-15	The solution must have the capability to overlay real-time information, including external sources, upon the geographical map view.
TS-16	The solution must include near real-time vessel AIS information.
TS-17	The solution must include strong authentication based on current industry best-practices (such as having to enter an emailed pin upon connecting to the system in conjunction with a password which must be composed of a mix of lowercase, uppercase, numerical and special characters).
TS-18	The solution must allow the creation of groups of users with common privileges.
TS-19	The solution must allow the capability to facilitate the sharing of restricted data between user groups.
TS-20	The solution must allow the user to download selected information onto their device and provide a synchronization capability for when they reconnect to the solution.
TS-21	The solution must allow a user to undock information, including a snapshot of live feed data, in a format that can be used offline.
TS-22	The solution must provide a geographical map view that functions in offline mode.
TS-23	The solution must allow for the capability to specify delimited geographical areas that trigger notifications when a vessel enters them, and when a vessel exits them and when a specified vessel related rule is activated (e.g. vessel is anchored, vessel speed is too high).
TS-24	The geofencing notifications must electronically be sent to appropriate users (e.g. by email or SMS).
TS-25	The solution must have the capability to allow users to share reported observations with other users.
TS-26	The solution must provide the capability to trigger a notification which will inform target groups when an observation is reported.

Item	Description
TS-27	The solution must have the capability to add meta tags, comments or annotations on the geographical map view, particularly in offline mode, and allow for that information to be shared
	across user groups.

# 4.4.2 Technical Solution Point Rated Criteria

Item	Description				
TS-28	The solution should identify the source of information for items on the geographical map view, when the information is external to the solution.				
	5 points 0 points	Addressed Not Addressed			
TS-29	The solution should allow for the filtering of geographical map overlay information according to pertinent criteria related to that information.				
	15 points 0 points	Addressed Not Addressed			
TS-30	The solution PDF forma	on should provide the user with the ability to export static geographical map views in t.			
	10 points Addressed 0 points Not Addressed				
TS-31	The solution should provide the user with the ability to export interactive geographical map views.				
	5 points 0 points	Addressed Not Addressed			
TS-32	The solution should allow for showing and hiding geographical map view overlays.				
	10 points Addressed 0 points Not Addressed				
TS-33	The solution should provide the functionality to group geographical map view overlays by theme.				
	10 points 0 points	Addressed Not Addressed			
TS-34	The solution should provide the user the capacity to perform multi-overlay analysis on the geographical map view.				
	10 points Addressed 0 points Not Addressed				
TS-35	The solution buffers).	on should provide the user the capacity to perform proximity analysis (for example:			
	5 points 0 points	Addressed Not Addressed			

Item	Description					
TS-36	The solution map view.	The solution should allow the user to overlay undocked information upon the geographical map view.				
	15 points 0 points	Addressed Not Addressed				
TS-37	The solution feeds.	The solution should have a mechanism to efficiently store spatiotemporal data from live data feeds.				
	15 points 0 points	Addressed Not Addressed				
TS-38	The solution more.	on should allow for the management and storage of large volumes of data, 5 TB or				
	15 points 0 points	Addressed Not Addressed				
TS-39		on should allow for the display of spatiotemporal information sets as overlays to the cal map view.				
	10 points Addressed 0 points Not Addressed					
TS-40	The solution should allow the capability to calculate statistics on maritime traffic for certain areas and display reports.					
	10 points 0 points	Addressed Not Addressed				
TS-41	The solution should allow for the import of spatiotemporal data in a standard GIS formats.					
	10 points 0 points	Addressed Not Addressed				
TS-42	The system could allow for the playback of temporal streams as overlays to the geographical map view.					
	5 points 0 points	Addressed Not Addressed				
TS-43	The solution graphics.	on should have the capability to summarize information with the use of tables and				
	10 points 0 points	Addressed Not Addressed				
TS-44	The solution should have the capability to export and import data in common formats such as CSV, KML, JSON or Shapefile.					
	15 points 0 points	Addressed Not Addressed				
TS-45	The solutions.	on should allow for information to be made available via web services to other GIS				
	10 points 0 points	Addressed Not Addressed				

Item	Description	
Total available points:		185.0
Minimum required score:		129.5

# 4.5 Phase 3: Technical Solution Demonstration Evaluation

# 4.5.1 Mandatory Technical Solution Demonstration Requirements

Item	Description				
TS-46	The Bidder must deliver a demonstration of the proposed GIS Solution to the ten coastal communities within 4 weeks from the completion of Phase 2, at a date, location and time to be determined.				
	<ul> <li>The presentation must be delivered in an accessible format and must include:</li> <li>A live demonstration of the proposed GIS Solution;</li> <li>An overview of the scalability, accessibility and functionality of the solution;</li> <li>An overview of the Bidder's proposed Implementation and Release Plan for the GIS solution; and</li> <li>Allow for panel members to freely interact with the preliminary GIS solution</li> </ul>				
	Bidders should expect panel members to ask questions of the Bidder. The Bidder's response will not be evaluated; however, the results may be incorporated into the statement of work through the Use Case process or agile sprints.				
TS-47	The Bidder must provide a written Implementation and Release Plan for the GIS Solution to the ten coastal communities and Transport Canada.				
TS-48	The Bidder must provide a written Service Support Plan for detailing their approach for fulfilling technical support requirements including, but not be limited to, the following:  • What the support process is?  • What the service level commitment will be?				
TS-49	<ul> <li>The Bidder should provide a Training Plan addressing the following:</li> <li>Training on the original GIS Solution</li> <li>Quarterly training on each new release</li> <li>Potential skills development for the Indigenous communities</li> <li>How the skills development can be maximized, as applicable</li> <li>The estimated cost to train 30 people</li> </ul>				

# 4.5.1 Technical Solution Demonstration Point Rated Technical Criteria

Item	Description				
TS-50	The Bidder should demonstrate how the proposed solution addresses all of the following required features:				
Total A	For each ite 2.5 points 1.5 point 0.5 points 0 points	Very well addressed Adequately addressed Minimally addressed Not addressed Weight x 2	a) b) c) d) e) f) g) h) i) k) 55	Real-time vessel position information Historical vessel position information Weather and sea conditions (e.g., precipitation, wind, currents) Identification of and information on specific areas of interest (e.g. a sensitive environmental area) Two-way input (e.g., observation reporting, user uploads) Customizable (user can create preferences) Secure (e.g. logins) Levels of access (e.g. different information access for different users) Interoperability (capability to gather and share data with other spatial data systems, allow for data extraction in common formats) The solution utilizes a standard platform/computer system to function) System capable of completing a certain task within a timeframe that doesn't diminish the user experience	
Total A	valiable Puli	11.5	33		

# 4.6 Mandatory Financial Criteria

Item	Description
MF-1	For Option Periods 2 through 5 and the Transition Period, Bidders must not exceed +/- 4% in the firm, all-inclusive hourly rate for each category of work detailed in the Financial Bid Presentation Sheet attached at Attachment 1 to Part 3 from each previous period.
MF-2	For Option Periods 2 through 5 and the Transition Period, Bidders must not exceed +/- 4% in the firm, all-inclusive rate per license detailed in the Financial Bid Presentation Sheet attached at Attachment 1 to Part 3 from each previous period.

# 4.7 Financial Evaluation

For the sole purposes of evaluation, the Total Financial Bid will be calculated based on the information provided in the Financial Bid Presentation Sheet.

#### 4.8 Basis of Selection

To be declared responsive, a bid must meet all Mandatory Technical Solution Demonstration Requirements.

The sum of the Total Points achieved for Phase 2: Technical Solution Evaluation and the Total Points achieved for Phase 3: Technical Solution Demonstration Evaluation will determine the Final Technical Score.

The selection will be based on the highest responsive combined rating of technical merit and price. The ratio will be 70% for the technical merit and 30% for the price.

To establish the technical merit score, the overall technical score for each responsive bid will be determined as follows: total number of points obtained / maximum number of points available multiplied by the ratio of 70%.

To establish the pricing score, the Total Financial Bid will be prorated against the lowest evaluated price and the ratio of 30%.

For each responsive bid, the technical merit score and the pricing score will be added to determine its combined rating.

Neither the responsive bid obtaining the highest technical score nor the one with the lowest evaluated price will necessarily be accepted.

The responsive bid with the highest combined rating of technical merit and price will be recommended for award of a contract.

### Example:

Description Overall Technical Score Bid Price		Bidder 1 Bidder 2  182/240 159/240		Bidder 3		
				192/240		
		\$4456.00	\$4109.20	\$3523.50		
Calculations	Technical Merit Score	182/240 x 70 = 53.08	159/240 x 70 = 46.38	192/240 x 70 = 56.00		
	<b>Pricing Score</b>	3523.5/4456 x 30 =	3523.5/4109.2 x 30 =	3523.5//3523.5 x 30 = 30.00		
Combined Rating		53.08 + 23.72 = 76.81 46.38 + 25.72 = 72.10		56.00 + 30.00 = 86.00		
Overall Rating		2	3	1		

#### PART 5 – CERTIFICATIONS AND ADDITIONAL INFORMATION

Bidders must provide the required certifications and additional information to be awarded a contract.

The certifications provided by Bidders to Canada are subject to verification by Canada at all times. Unless specified otherwise, Canada will declare a bid non-responsive, or will declare a contractor in default if any certification made by the Bidder is found to be untrue, whether made knowingly or unknowingly, during the bid evaluation period or during the contract period.

The Contracting Authority will have the right to ask for additional information to verify the Bidder's certifications. Failure to comply and to cooperate with any request or requirement imposed by the Contracting Authority will render the bid non-responsive or constitute a default under the Contract.

# 5.1 Certifications Required with the Bid

Bidders must submit the following duly completed certifications as part of their bid.

# 5.1.1 Integrity Provisions - Declaration of Convicted Offences

In accordance with the Integrity Provisions of the Standard Instructions, all bidders must provide with their bid, **if applicable**, the Integrity declaration form available on the <u>Forms for the Integrity Regime</u> website (http://www.tpsgc-pwgsc.gc.ca/ci-if/declaration-eng.html), to be given further consideration in the procurement process.

#### 5.2 Certifications Precedent to Contract Award and Additional Information

The certifications and additional information listed below should be submitted with the bid but may be submitted afterwards. If any of these required certifications or additional information is not completed and submitted as requested, the Contracting Authority will inform the Bidder of a time frame within which to provide the information. Failure to provide the certifications or the additional information listed below within the time frame specified will render the bid non-responsive.

### 5.2.1 Integrity Provisions – Required Documentation

In accordance with the section titled Information to be provided when bidding, contracting or entering into a real procurement agreement of the <u>Ineligibility and Suspension Policy</u> (http://www.tpsgc-pwgsc.gc.ca/ci-if/politique-policy-eng.html), the Bidder must provide the required documentation, as applicable, to be given further consideration in the procurement process.

### 5.2.2 Federal Contractors Program for Employment Equity - Bid Certification

By submitting a bid, the Bidder certifies that the Bidder, and any of the Bidder's members if the Bidder is a Joint Venture, is not named on the Federal Contractors Program (FCP) for employment equity "FCP Limited Eligibility to Bid" list available at the bottom of the page of the <a href="Employment and Social Development Canada">Employment and Social Development Canada</a> (ESDC) - <a href="Labour's">Labour's</a> website (https://www.canada.ca/en/employment-social-development/programs/employment-equity/federal-contractor-program.html#).

Canada will have the right to declare a bid non-responsive if the Bidder, or any member of the Bidder if the Bidder is a Joint Venture, appears on the "FCP Limited Eligibility to Bid list at the time of contract award.

Canada will also have the right to terminate the Contract for default if a Contractor, or any member of the Contractor if the Contractor is a Joint Venture, appears on the "FCP Limited Eligibility to Bid" list during the period of the Contract.

The Bidder must provide the Contracting Authority with a completed annex titled Federal Contractors Program for Employment Equity - Certification, before contract award. If the Bidder is a Joint Venture, the Bidder must provide the Contracting Authority with a completed annex Federal Contractors Program for Employment Equity - Certification, for each member of the Joint Venture.

### 5.2.3. Status and Availability of Resources

The Bidder certifies that, should it be awarded a contract as a result of the bid solicitation, every individual proposed in its bid will be available to perform the Work as required by Canada's representatives and at the time specified in the bid solicitation or agreed to with Canada's representatives. If for reasons beyond its control, the Bidder is unable to provide the services of an individual named in its bid, the Bidder may propose a substitute with similar qualifications and experience. The Bidder must advise the Contracting Authority of the reason for the substitution and provide the name, qualifications and experience of the proposed replacement. For the purposes of this clause, only the following reasons will be considered as beyond the control of the Bidder: death, sickness, maternity and parental leave, retirement, resignation, dismissal for cause or termination of an agreement for default.

If the Bidder has proposed any individual who is not an employee of the Bidder, the Bidder certifies that it has the permission from that individual to propose his/her services in relation to the Work to be performed and to submit his/her résumé to Canada. The Bidder must, upon request from the Contracting Authority, provide a written confirmation, signed by the individual, of the permission given to the Bidder and of his/her availability. Failure to comply with the request may result in the bid being declared non-responsive.

# 5.2.4 Education and Experience

The Bidder certifies that all the information provided in the résumés and supporting material submitted with its bid, particularly the information pertaining to education, achievements, experience and work history, has been verified by the Bidder to be true and accurate. Furthermore, the Bidder warrants that every individual proposed by the Bidder for the requirement is capable of performing the Work described in the resulting contract.

#### **PART 6 - RESULTING CONTRACT CLAUSES**

The following clauses and conditions apply to and form part of any contract resulting from the bid solicitation.

#### 6.1 Statement of Work

The Contractor must perform the Work in acco	rdance with	Part 1 in the 9	Statement of \	Work at Ar	nnex A
and the Contractor's technical bid entitled	, dated				

### 6.1.1 Licensed Software Subscription Services (LSSS)

- a) The Contractor agrees to supply to the Client Licensed Software Subscription Services to access and use the hosted GIS Solution that meets all the requirements and specifications contained in the Contract, including the Statement of Work, in accordance with and at the prices set out in the Contract. This includes:
  - i. granting licenses for online and offline access and use of the GIS Solution;
  - ii. providing any GIS Solution-related software applications required for web, desktop or mobile (online or offline) access and use of the GIS Solution;
  - iii. performing any Work required to design or develop features or functionality, and develop and implement any commercially available or custom software components in accordance with the Contract;
  - iv. providing Software Documentation;
  - v. providing automatic synchronized maintenance of all GIS Solution-related software applications;
  - vi. providing training, as and when requested by Canada.
- b) **Client:** The Client is Transport Canada.
- c) Reorganization of Client: The Contractor's obligation to perform the Work will not be affected by (and no additional fees will be payable as a result of) the renaming, reorganization, reconfiguration, or restructuring of any Client. The reorganization, reconfiguration and restructuring of the Client includes the privatization of the Client, its merger with another entity, or its dissolution, where that dissolution is followed by the creation of another entity or entities with mandates similar to the original Client. In connection with any form of reorganization, Canada may designate another department or government body as the Contracting Authority or Project Authority, as required to reflect the new roles and responsibilities associated with the reorganization.
- d) Defined Terms: Words and expressions defined in the General Conditions and used in these supplemental general conditions have the meanings given to them in the General Conditions unless provided otherwise. If the General Conditions contain sections entitled "Ownership" and "Warranty", those sections do not apply to the Licensed Software Subscription Services. Instead,

the ownership and warranty provisions herein in this agreement apply to the Licensed Software Subscription Services.

- i. "Licensed Software Subscription Services" means the right to access and use the software products installed at the Contractor's premises that must be provided by the Contractor to Canada under the Contract. This includes a subscription license with all the rights defined in the Contract and the right to the Software Documentation collectively.
- ii. -"End-user" or "User" or "Administrator" or "Contact" means an individual authorized by the Client to use the Licensed Software Subscription Services under the Contract and for the purposes of this Contract, includes any employee, agent, third-party or contractor authorized to use the Licensed Software Subscription Services. For the purpose of this contract, the number of Users for the purpose of establishing a unit of measure for the Basis of Payment;
- iii. "Licensed Software Subscription Services Maintenance Releases" means all commercially available enhancements, extensions, improvements, upgrades, updates, releases, versions, renames, rewrites, cross-grades, components and back grades or other modifications to the Licensed Software Subscription Services developed or installed by the Contractor or its licensor;
- iv. "Licensed Software Subscription Period" means the period specified in the Contract during which the Contractor must support the Licensed Software Subscription Services, in accordance with the conditions of the Contract.

# 6.1.2 Optional Goods and/or Services

The Contractor grants to Canada the irrevocable option to acquire the goods, services or both described at Part 2 of the Statement of Work at Annex A under the same conditions and at the prices and/or rates stated in the Contract. The option may only be exercised by the Contracting Authority and will be evidenced, for administrative purposes only, through a contract amendment.

The Contracting Authority may exercise the option at any time before the expiry of the Contract by sending a written notice to the Contractor.

### **6.2** Standard Clauses and Conditions

All clauses and conditions identified in the Contract by number, date and title are set out in the <u>Standard Acquisition Clauses and Conditions Manual</u> (https://buyandsell.gc.ca/policy-and-guidelines/standard-acquisition-clauses-and-conditions-manual) issued by Public Works and Government Services Canada.

### 6.2.1 General Conditions

2035 (2018-06-21), General Conditions - Higher Complexity - Services, apply to and form part of the Contract.

### 6.2.2 Supplemental General Conditions

a) The following Supplemental General Conditions apply to and form part of the Contract:

4002 (2010-08-16) Software Development or Modification Services

4003 (2010-08-16) Licensed Software 4006 (2010-08-16) Contractor to Own Intellectual Property Rights in Foreground Information

b) 4003 (2010-08-16) Licensed Software, 01 Interpretation is amended as follows:

**Delete:** "Licensed Software" means the Licensed Programs and the Software Documentation

collectively;

Insert: "Licensed Software" means the Licensed Software Subscription Services and

Software Documentation collectively;

# 6.2.3 License to the Licensed Software Subscription Services

Licensed Software Subscription Services: The Contractor agrees that the Licensed Software Subscription Services will include the use of all software applications required to enable the Client to use all the features and functionality, including but not limited the use and access to all agents, host agents, third-party endusers, access licenses, drivers, application program interfaces, adapters, connectors, plug-ins, software development tool kits and management console hosted by the Contractor.

- i. The Contractor must provide Licensed Software Subscription Services for the hosted GIS Solution.
- ii. Type of License being Granted: Licensed Software Subscription Services: access and use of hosted GIS Solution; non-exclusive concurrent user license to use and reproduce the GIS Solutionsrelated software applications.
- iii. Term of the License: Annual;
- iv. Initial Requirement:
  - a. Temporary royalty-free licenses for Phase 3 evaluation period.
  - b. Annual license commencing Part 2 of the Statement of Work in Annex A;
- v. Language of Licensed Software Subscription Services: English or French or both;
- vi. Media on which the GIS Solution must be delivered: Internet access (downloadable);
- vii. Additional Rights: This Licensed Software Subscription Services includes the right for Canada to use the GIS Solution:
  - a. to access and use all the hosted software products that form part of GIS Solution from as many locations (off-site workplaces or work environments "in the field", and in-home work environments for the Client's business purposes) as the Client sees fit;
  - b. to use English and French versions (if available, these must be the "Canadian English" and "Canadian French" versions);
  - c. to grant access through an internet browser using internet, intranet and extranet environments or any other connections to anyone who uses the services and programs provided by Canada (regardless of their location) to access, view, enter, search, exchange and read information held and created by the Client using the hosted GIS Solution;
  - d. to make this use by way of a network, the Internet, an intranet, an extranet, a virtual private network (VPN), an inter-network, or such other means as may become possible from time to time so that users have "universal access rights" (i.e., a right to access the

Licensed Software Subscription Services by any means from any location as may become possible from time to time), whether their means of access is secure, wireless, mobile or by any other means available from time to time;

- e. to make this use regardless of the operating systems, software applications and Application Programming Interface(s) (API) that the Client may be using from time to time; however, Canada acknowledges that the Contractor is not granting any license rights to software other than the Licensed Software Subscription Services; and
- f. to continue to use the Licensed Software Subscription Services regardless of any changes made at any given time, including but not limited to changes in the operating system, other applications, hardware, peripherals or devices with which the Licensed Software Subscription Services operates; however, the Contractor is not required to deliver a new or different version of the Licensed Software Subscription Services to enable the Client and third-party end-users to continue to use the Licensed Software Subscription Services in a different environment than the one(s) described in the Contract.
- **viii. Representation and Warranty**: The Contractor warrants and represents that the Licensed Software Subscription Services meets or exceeds all the Specifications.
- ix. Licensed Software Subscription Services Maintenance: The Contractor must as part of the Licensed Software Subscription Services" upgrade the hosted GIS Solution with the most recent release(s) and version(s) of the software products, to ensure that it meets the requirements of the Contract and Statement of Work. These releases(s) and version(s) means all commercially available enhancements, extensions, improvements, upgrades, updates, releases, versions, renames, rewrites, cross-grades, components and back grades or other modifications to the Licensed Software Subscription Services developed by the Contractor or its licensor. Any offline version or GIS Solution-related software application must receive concurrent automatic synchronized maintenance upgrades and updates.

#### 6.2.4 Advance Payment Refund

The parties agree that in the event of termination of services for the convenience of Canada for which an advance payment has been made, charges up to the date of termination will be calculated on a *pro rata* basis of a twelve month year and a thirty day month. The Contractor will immediately refund to Canada the unliquidated portion of the advance payment and pay to Canada interest thereon, from the date of the advance payment to the date of the refund, at the discount rate of interest per annum set by the Bank of Canada and prevailing on the date of the advance payment, plus 1 ½ percent per annum.

# 6.3 Security Requirements

There is no security requirement applicable to the Contract.

#### 6.4. Period of the Contract

The period of the Contract is from \_\_\_\_\_ (to be determined) to \_\_\_\_\_ (to be determined) inclusive.

### 6.4.1 Option to Extend the Contract – Part 2 of the Statement of Work only

The Contractor grants to Canada the irrevocable option to extend the term of the Contract by up to one additional period of 14 months and four additional periods of one year each under the same conditions. The Contractor agrees that, during the extended period of the Contract, it will be paid in accordance with the applicable provisions as set out in the Basis of Payment.

Canada may exercise the options at any time by sending a written notice to the Contractor at least 10 calendar days before the expiry date of the Contract. The option may only be exercised by the Contracting Authority, and will be evidenced for administrative purposes only, through a contract amendment.

#### 6.4.2 Transition Period

The Contractor acknowledges that the nature of the services provided under the Contract requires continuity and that a transition period may be required at the end of the Contract. The Contractor agrees that Canada may, at its discretion, extend the Contract by a period of up to four months under the same conditions to ensure the required transition. The Contractor agrees that, during the extended period of the Contract, it will be paid in accordance with the applicable provisions as set out in the Basis of Payment.

The Contracting Authority will advise the Contractor of the extension by sending a written notice to the Contractor at least 30 calendar days before the contract expiry date. The extension will be evidenced for administrative purposes only, through a contract amendment.

# 6.4.3 Comprehensive Land Claims Agreements (CLCAs)

The Contract is subject to the following Comprehensive Land Claims Agreement(s):

- Inuvialuit Final Agreement Tuktoyaktuk
- Nunavut Land Claims Agreement Cambridge Bay
- Labrador Inuit Land Claims Agreement Nain

### 6.4.4 Delivery Points

Delivery of the requirement will be made to delivery point(s) specified at Article 7.2 of Annex A, Statement of Work.

#### 6.5 Authorities

### 6.5.1 Contracting Authority

The Contracting Authority for the Contract is:

April Campbell
Supply Specialist
Acquisitions Program
Innovation Procurement Directorate
Terrasses de la Chaudière, 4th Floor
10 Wellington Street

Gatineau, Quebec, K1A 0R4

Telephone: 613-295-5356

Email: april.campbell@pwgsc.gc.ca

The Contracting Authority is responsible for the management of the Contract and any changes to the Contract must be authorized in writing by the Contracting Authority. The Contractor must not perform work in excess of or outside the scope of the Contract based on verbal or written requests or instructions from anybody other than the Contracting Authority.

### 6.5.2 Technical Authority

The Technical Authority for the Contract is: to be determined.

The Technical Authority is the representative of the department or agency for whom the Work is being carried out under the Contract and is responsible for all matters concerning the technical content of the Work under the Contract. Technical matters may be discussed with the Technical Authority; however, the Technical Authority has no authority to authorize changes to the scope of the Work. Changes to the scope of the Work can only be made through a contract amendment issued by the Contracting Authority.

# 6.5.3 Contractor's Representative

The Contractor's representative for the Contract is: To be determined.

### 6.6 Proactive Disclosure of Contracts with Former Public Servants

By providing information on its status, with respect to being a former public servant in receipt of a <u>Public Service Superannuation Act</u> (PSSA) pension, the Contractor has agreed that this information will be reported on departmental websites as part of the published proactive disclosure reports, in accordance with <u>Contracting Policy Notice: 2012-2</u> of the Treasury Board Secretariat of Canada.

### 6.7 Payment

## 6.7.1 Basis of Payment

### 6.7.1.1 Part 1

For the work described in **Part 1** of the Statement of Work, in Annex A:

The Contractor will be paid for its costs reasonably and properly incurred in the performance of the Work in accordance with Part 1 of the Basis of Payment at Annex B to a ceiling price of \$100,000.00. Customs duties are included and Applicable Taxes are extra.

### 6.7.1.2 Limitation of Price - Part 1

Canada will not pay the Contractor for any design changes, modifications or interpretations of the Work unless they have been approved, in writing, by the Contracting Authority before their incorporation into the Work.

# 6.7.1.3 Part 2 - Optional

For the work described in **Part 2** of the Statement of Work, at Annex A:

The Contractor will be paid for its costs reasonably and properly incurred in the performance of the Work, in accordance with the Basis of payment in Annex B, to a limitation of expenditure of \$2,500,000.00. Customs duties are included and Applicable Taxes are extra.

# 6.7.1.4 Limitation of Expenditure - Part 2

- 1. Canada's total liability to the Contractor under the Contract must not exceed \$2,500,000.00. Customs duties are included and Applicable Taxes are extra.
- 2. No increase in the total liability of Canada or in the price of the Work resulting from any design changes, modifications or interpretations of the Work, will be authorized or paid to the Contractor unless these design changes, modifications or interpretations have been approved, in writing, by the Contracting Authority before their incorporation into the Work. The Contractor must not perform any work or provide any service that would result in Canada's total liability being exceeded before obtaining the written approval of the Contracting Authority. The Contractor must notify the Contracting Authority in writing as to the adequacy of this sum:
  - a. when it is 75% committed, or
  - b. four months before the contract expiry date, or
  - c. as soon as the Contractor considers that the contract funds provided are inadequate for the completion of the Work,

whichever comes first.

3. If the notification is for inadequate contract funds, the Contractor must provide to the Contracting Authority a written estimate for the additional funds required. Provision of such information by the Contractor does not increase Canada's liability.

# 6.7.3 Method of Payment

# 6.7.3.1 Advance Payments

Canada will pay the Contractor in advance for the Subscription Services if:

- a. an accurate and complete invoice and any other documents required by the Contract have been submitted in accordance with the invoicing instructions provided in the Contract;
- b. all such documents have been verified by Canada.

### 6.7.3.2 Monthly Payments

Canada will pay the Contractor on a monthly basis for Work performed during the month covered by the invoice in accordance with the payment provisions of the Contract if:

- a. an accurate and complete invoice and any other documents required by the Contract have been submitted in accordance with the invoicing instructions provided in the Contract;
- b. all such documents have been verified by Canada;
- c. the Work performed has been accepted by Canada.

#### 6.7.4 SACC Manual Clauses

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A9117C (2007-11-30) T1204 – Direct Request by Customer Department C2000C (2007-11-30) Taxes – Foreign-based Contractor
```

# 6.7.5 Electronic Payment of Invoices – Contract

The Contractor accepts to be paid using any of the following Electronic Payment Instrument(s):

- a. Visa Acquisition Card;
- b. MasterCard Acquisition Card;
- c. Direct Deposit (Domestic and International);
- d. Electronic Data Interchange (EDI);
- e. Wire Transfer (International Only);
- f. Large Value Transfer System (LVTS) (Over \$25M)

### 6.7.7 Time Verification

Time charged and the accuracy of the Contractor's time recording system are subject to verification by Canada, before or after payment is made to the Contractor. If verification is done after payment, the Contractor must repay any overpayment, at Canada's request.

### 6.8 Invoicing Instructions

6.8.1 The Contractor must submit invoices in accordance with the section entitled "Invoice Submission" of the general conditions. Invoices cannot be submitted until all work identified in the invoice is completed.

Each invoice must be supported by:

- a. a copy of time sheets to support the time claimed;
- b. a copy of the release document and any other documents as specified in the Contract;
- c. a copy of the invoices, receipts, vouchers for all direct expenses, and all travel and living expenses.

# 6.8.2 Invoices must be distributed as follows:

- a. One electronic copy must be forwarded to the Technical Authority identified under the section entitled "Authorities" of the Contract.
- b. One electronic copy must be forwarded to the Contracting Authority identified under the section entitled "Authorities" of the Contract.

#### 6.9 Certifications and Additional Information

### 6.9.1 *Compliance*

Unless specified otherwise, the continuous compliance with the certifications provided by the Contractor in its bid or precedent to contract award, and the ongoing cooperation in providing additional information are conditions of the Contract and failure to comply will constitute the Contractor in default. Certifications are subject to verification by Canada during the entire period of the Contract.

### 6.9.2 Federal Contractors Program for Employment Equity - Default by the Contractor

The Contractor understands and agrees that, when an Agreement to Implement Employment Equity (AIEE) exists between the Contractor and Employment and Social Development Canada (ESDC)-Labour, the AIEE must remain valid during the entire period of the Contract. If the AIEE becomes invalid, the name of the Contractor will be added to the "FCP Limited Eligibility to Bid" list. The imposition of such a sanction by ESDC will constitute the Contractor in default as per the terms of the Contract.

## 6.10 Applicable Laws

The Contract must be	interpreted and governed	, and the relations betwe	en the parties de	termined, by
the laws in force in				

# **6.11** Priority of Documents

If there is a discrepancy between the wording of any documents that appear on the list, the wording of the document that first appears on the list has priority over the wording of any document that subsequently appears on the list.

- (a) the Articles of Agreement;
- (b) the supplemental general conditions 4003 (2010-08-16) Licensed Software;
- (c) the supplemental general conditions 4002 (2010-08-16) Software Development or Modification Services;
- (d) the supplemental general conditions 4006 (2010-08-16) Contractor to Own Intellectual Property Rights in Foreground Information;
- (e) the general conditions 2035 (2018-06-21) Higher Complexity Services;
- (f) Annex A, Statement of Work;
- (g) Annex B, Basis of Payment;
- (h) Annex C, Electronic Payment Instruments; and,
- (i) the Contractor's bid dated .

# **6.12** Foreign Nationals (Canadian Contractor)

The Contractor must comply with Canadian immigration requirements applicable to foreign nationals entering Canada to work temporarily in fulfillment of the Contract. If the Contractor wishes to hire a foreign national to work in Canada to fulfill the Contract, the Contractor should immediately contact the nearest Service Canada regional office to enquire about Citizenship and Immigration Canada's

requirements to issue a temporary work permit to a foreign national. The Contractor is responsible for all costs incurred as a result of non-compliance with immigration requirements.

(OR)

# **6.12** Foreign Nationals (Foreign Contractor)

The Contractor must comply with Canadian immigration legislation applicable to foreign nationals entering Canada to work temporarily in fulfillment of the Contract. If the Contractor wishes to hire a foreign national to work in Canada to fulfill the Contract, the Contractor should immediately contact the nearest Canadian Embassy, Consulate or High Commission in the Contractor's country to obtain instructions, information on Citizenship and Immigration Canada's requirements and any required documents. The Contractor is responsible to ensure that foreign nationals have the required information, documents and authorizations before performing any work under the Contract in Canada. The Contractor is responsible for all costs incurred as a result of non-compliance with immigration requirements.

### 6.13 Limitation of Liability – Information Management / Information Technology

1. This section applies despite any other provision of the Contract and replaces the section of the general conditions entitled "Liability". Any reference in this section to damages caused by the Contractor also includes damages caused by its employees, as well as its subcontractors, agents, and representatives, and any of their employees. This section applies regardless of whether the claim is based in contract, tort, or another cause of action. The Contractor is not liable to Canada with respect to the performance of or failure to perform the Contract, except as described in this section and in any section of the Contract pre-establishing any liquidated damages. The Contractor is only liable for indirect, special or consequential damages to the extent described in this section, even if it has been made aware of the potential for those damages.

### 2. First Party Liability:

- a. The Contractor is fully liable for all damages to Canada, including indirect, special or consequential damages, caused by the Contractor's performance or failure to perform the Contract that relate to:
  - any infringement of intellectual property rights to the extent the Contractor breaches the section of the general conditions entitled "Intellectual Property Infringement and Royalties";
  - ii. physical injury, including death.
- b. The Contractor is liable for all direct damages caused by the Contractor's performance or failure to perform the Contract affecting real or tangible personal property owned, possessed, or occupied by Canada.
- c. Each of the Parties is liable for all direct damages resulting from its breach of confidentiality under the Contract. Each of the Parties is also liable for all indirect, special or consequential damages in respect of its unauthorized disclosure of the other Party's trade secrets (or trade secrets of a third party provided by one Party to another under the Contract) relating to information technology.
- d. The Contractor is liable for all direct damages relating to any encumbrance or claim relating to any portion of the Work for which Canada has made any payment. This does not apply to encumbrances or claims relating to intellectual property rights, which are addressed under (a) above.

- e. The Contractor is also liable for any other direct damages to Canada caused by the Contractor's performance or failure to perform the Contract that relate to:
  - any breach of the warranty obligations under the Contract, up to the total amount paid by Canada (including Applicable Taxes) for the goods and services affected by the breach of warranty; and
  - ii. any other direct damages, including all identifiable direct costs to Canada associated with re-procuring the Work from another party if the Contract is terminated either in whole or in part for default, up to an aggregate maximum for this subparagraph (ii) of the greater of 0.25 times the total estimated cost (meaning the dollar amount shown on the first page of the Contract in the block titled "Total Estimated Cost" or shown on each call-up, purchase order or other document used to order goods or services under this instrument), or \$1,000,000.00.

In any case, the total liability of the Contractor under paragraph (e) will not exceed the total estimated cost (as defined above) for the Contract or \$1,000,000.00, whichever is more.

f. If Canada's records or data are harmed as a result of the Contractor's negligence or willful act, the Contractor's only liability is, at the Contractor's own expense, to restore Canada's records and data using the most recent back-up kept by Canada. Canada is responsible for maintaining an adequate back-up of its records and data.

# 3. Third Party Claims:

- a. Regardless of whether a third party makes its claim against Canada or the Contractor, each Party agrees that it is liable for any damages that it causes to any third party in connection with the Contract as set out in a settlement agreement or as finally determined by a court of competent jurisdiction, where the court determines that the Parties are jointly and severally liable or that one Party is solely and directly liable to the third party. The amount of the liability will be the amount set out in the settlement agreement or determined by the court to have been the Party's portion of the damages to the third party. No settlement agreement is binding on a Party unless its authorized representative has approved the agreement in writing.
- b. If Canada is required, as a result of joint and several liability, to pay a third party in respect of damages caused by the Contractor, the Contractor must reimburse Canada by the amount finally determined by a court of competent jurisdiction to be the Contractor's portion of the damages to the third party. However, despite paragraph (a), with respect to special, indirect, and consequential damages of third parties covered by this section, the Contractor is only liable for reimbursing Canada for the Contractor's portion of those damages that Canada is required by a court to pay to a third party as a result of joint and several liability that relate to the infringement of a third party's intellectual property rights; physical injury of a third party, including death; damages affecting a third party's real or tangible personal property; liens or encumbrances on any portion of the Work; or breach of confidentiality.
- c. The Parties are only liable to one another for damages to third parties to the extent described in this paragraph 3.

# 6.14 Insurance – No Specific Requirement

The Contractor is responsible for deciding if insurance coverage is necessary to fulfill its obligations under the Contract and to ensure compliance with any applicable law. Any insurance acquired or maintained by the Contractor is at its own expense and for its own benefit and protection. It does not release the Contractor from or reduce its liability under the Contract.

# ANNEX A STATEMENT OF WORK ENHANCED MARITIME SITUATIONAL AWARENESS (EMSA)

# 1. INTRODUCTION

Transport Canada exists to serve the public interest through the promotion of a safe and secure, efficient and environmentally responsible transportation system in Canada. It is responsible for developing and overseeing the Government of Canada's transportation policies, programs and regulations to advance the safety and security of Canada's marine transportation system. Transport Canada promotes an efficient and sustainable system that protects the marine environment and contributes to economic development.

#### 2. BACKGROUND

In November, 2016, Canada announced the \$1.5 billion national Oceans Protection Plan (OPP). This plan is a national strategy to create a world-leading marine safety responsible shipping system. It will provide economic opportunities for Canadians today, while protecting our coastlines for future generations. The Oceans Protection Plan is the largest investment ever made in Canada's coasts and waterways, and will:

- improve marine safety and responsible shipping
- protect Canada's marine environment
- offer new possibilities for Indigenous and coastal communities

Under the OPP, Transport Canada is working with Indigenous and coastal communities, the marine industry and other stakeholders to develop and improve Canada's marine safety system and enable enhanced access to accurate, real-time information on marine shipping activities in local waters.

Canada conducted community engagement sessions nationally to gather user needs and functionality requirements for the GIS solution, and to identify potential communities to participate in pilot projects. Communities participating in pilot projects will work with a prototype of this solution in order to evaluate whether it meets user needs and to identify its potential application for maritime situational awareness.

# 2.1 Relevant Information

The GIS Solution should consider the following as the data that will be utilized to support the solution will be from Government of Canada sources at the federal, provincial and territorial levels as well as non-governmental sources and will aid in ensuring technical compatibility:

Treasury Board Secretariat Standard on Geospatial Data <a href="http://www.tbs-sct.gc.ca/pol/doc-eng.aspx?id=16553">http://www.tbs-sct.gc.ca/pol/doc-eng.aspx?id=16553</a>

World Wide Web Consortium Standards on Accessibility http://www.w3.org/standards/webdesign/accessibility

#### 3. OBJECTIVES

The objectives of the contract are to obtain a user-centric solution that can be customized to effectively integrate and depict various layers of marine data and information in real-time. The GIS Solution must include layers of information for both 'static' data (e.g., bathymetry, sensitive habitats, cultural sites, vessel and port databases) and 'real-time' data (e.g., vessel tracking, meteorological information, endangered species location, spill and pollution events), in both historical (e.g. yearly data on maritime traffic) and present-day context.

The resulting Enhanced Maritime Situational Awareness (EMSA) solution is expected to enhance the collective understanding of activities in local waters, and enable partners and stakeholders to meaningfully participate in local marine safety, emergency response, and environmental protection activities.

The EMSA solution is not intended to be used for the purpose of search and rescue or to support a live operation. The testing of the EMSA solution will allow Canada to better gauge the usefulness of a maritime situational awareness system as well as identify key functionalities and data points.

#### 4. REQUIREMENT

Transport Canada has a requirement for the design, development, implementation, maintenance, and hosting of a national Geographic Information System (GIS) solution for an Enhanced Maritime Situational Awareness solution to be piloted in remote and coastal communities across Canada. Training and Support must also be provided.

Upon completion of the pilot period, the Canada, in consultation with pilot site communities will evaluate the solution's effectiveness and determine if the program warrants implementation on a national basis.

#### 5. SCOPE OF WORK – PART 1

The following represents the work to be undertaken in Part 1 which forms Phase 2 and Phase 3 evaluation criteria.

# 5.1 Access

The Bidder must provide temporary access to the GIS Solution via username and password, for evaluation purposes only. The solution must be functional against a live data store which may include must include Automatic Identification System (AIS) data and may include the potential sources of data identified at Appendix 2 to Annex A.

#### 5.2 Functionality

The following features and functions must be addressed in the GIS solution.

# 5.2.1 User Experience

The solution must:

- a) Support both official languages of Canada as demonstrated through the following:
  - User language preference settings
  - A language toggle mechanism
  - On-screen labels and information displayed according to the selected language.
  - Data input fields to capture information in both languages.
- b) Utilize plain language.

# 5.2.2 Geographic Information System

The solution must:

- a) Allow the user to, at the click of a button: zoom in/out, pan, zoom to previous extent, zoom to full extent, and zoom to selected feature(s).
- b) Allow the user to specify the scale of the geographical map view.
- c) Be capable of displaying points, lines or cells on the geographical map view.
- d) Allow the user to select geospatial features by clicking or dragging a box and easily clear the selection.
- e) Provide a measuring tool to allow the measurement of distances and areas on the map.
- f) Provide the user with the ability to show or select features on the map by location and feature attribute filters.
- g) Allow the user to set an Area of Interest (AOI) on the geographical map view.
- h) Be capable of providing information in relation to points on the geographical map view based on geospatial data including postal code, latitude/longitude, IP address.
- i) Allow users to configure:
  - fonts,
  - labels.
  - symbolizers (e.g. vessels),
  - visibility and location of specific panels,
  - sub-panels, and
  - functionality
- j) Be capable of overlaying static information, including external sources, upon the geographic map view.
- k) Be capable of overlaying real-time information, including external sources, upon the geographical map view.

Include near real-time vessel AIS information.

#### **5.2.3** Features and Functionalities

#### The solution must:

- a) Include strong user login authentication based on current industry best-practices (such as having to enter an emailed pin upon connecting to the system in conjunction with a password which must be composed of a mix of lowercase, uppercase, numerical and special characters).
- b) Allow the creation of groups of users with common privileges.
- c) Allow the capability to facilitate the sharing of restricted data between user groups.
- d) Allow the user to download selected information onto their device and provide a synchronization capability for when they reconnect to the solution.
- e) Allow a user to undock information, including a snapshot of live feed data, in a format that can be used offline.
- f) Provide a geographical map view that functions in offline mode.
- e) Allow for the capability to specify delimited geographical areas that trigger notifications when a vessel enters them, when a vessel exits them or when a specified vessel related rule is activated (e.g. vessel is anchored, vessel speed is too high).
- f) The geofencing notifications must electronically be sent to appropriate users (e.g. by email or SMS).
- g) Allow users to share reported observations with other users.
- h) Be capable of triggering a notification which will inform target groups when an observation is reported.
- i) Have the capability to add meta tags, comments or annotations on the geographical map view, particularly in offline mode, and allow for that information to be shared across user groups.

#### 6. SCOPE OF WORK - PART 2 (Option Period 1)

The following represents the work that will be undertaken in the first Option Period (16 months) and is considered the Launch Point of the project.

The Contractor must deliver the following to the Project Authority immediately following the technical solution demonstration:

- Draft Implementation and Release Plan
- Draft Support Services Plan
- Draft Indigenous Training Plan

#### 6.1 Summary

The Contractor must design, develop, implement, maintain and host the GIS Solution requirements based on an on-going queue of priorities maintained by Canada, using agile project management while providing services to support, maintain, enhance and host the solution for a period of one year, followed by a two month close out period (see section 7.10). Transport Canada, in conjunction with the communities using the solution, will conduct a review of the project results to inform potential next steps.

The Contractor is responsible for ensuring that the end-user coastal communities can access and use the GIS Solution on the date that the pilot period starts, which must include the AIS feed(s) provided by the Project Authority. Some pilot communities may have several end-point locations. The Project Authority will provide a list upon contract award.

### 6.2 Implementation & Release Plan

Within 10 business days from execution date of Option Period 1, the Project Authority will provide the Contractor with comments on the draft Implementation and Release Plan. The Contractor must update its Implementation & Release Plan to reflect the Project Authority's comments and resubmit for approval within five business days. The Project Authority will approve the final document within five business days.

The Contractor must outline their strategy for implementing the project in the Implementation and Release Plan, including functionality builds and releases. The Implementation and Release Plan must specify the delivery dates for all requirements identified in 7.4. Functionality. Release notes must be produced for each new release and, if applicable, training material must be updated or supplementary training material must be produced.

# 6.3 Service Support Plan

Within 10 business days from execution date of Option Period 1, the Project Authority will provide the Contractor with comments on the draft Service Support Plan. The Contractor must update its Service Support Plan to reflect the Project Authority's comments and resubmit within five business days of receipt. The Project Authority will approve the plan within five business days.

#### 6.4 Indigenous Training Plan

Within 10 business days from execution of Option Period 1, the Project Authority will provide the Contractor with comments on the draft Indigenous Training Plan, and address the elements identified in article 6.6. The Contractor must update its Indigenous Training Plan to reflect the Project Authority's comments and resubmit within five business days of receipt. The Project Authority will approve the plan within five business days.

# 6.5 Access

All end-users (approximately 190) must have access to the functional GIS Solution within 40 business days of execution date of Option Period 1. The Contractor must provide the account information to access the GIS Solution for the end-users to the Project Authority who will deliver to each of the communities. The

GIS Solution must offer the end-user the option to establish a unique username or password and provide for security questions to validate the user in the event the password is lost or forgotten.

#### 6.6 Training

The Contractor must deliver a training plan to the Project Authority detailing how the training will be conducted, when, and the documentation to be provided to support the training. Once approved, the Contractor must provide training to up to 175 regular users and up to 15 GIS analysts during normal business hours at the location training is provided (to be determined). The format of the training can be a combination of in-person, video-based, tutorials, and online training. The training must be offered to the users within 30 business days of the launch date of the GIS solution. In addition, to support pilot project participants with the use of the new features, the Contractor must provide training at each release of the GIS solution.

In addition to providing user training, the Contractor must provide user guides and other associated training documentation to reflect new releases, which may include the establishment of a product Wikipedia page, and online forums. The services and products provided to the user base must be available in both official languages and approved by the Project Authority prior to being released to users or published online.

# 6.7 Hosting

The Contractor must host the GIS Solution either on their own premises or through third party hosting arrangements. It is the responsibility of the Contractor to ensure that the solution is available and accessible – through the Internet – to all pilot communities for the duration of the contract. The Contractor must ensure that the hosting of the solution is scalable given the need for frequent updates and addition of features throughout the contract.

No Government facilities or infrastructure will be used to host the GIS solution. The Contractor must supply all GIS-Related software applications required for offline use.

#### 6.8 Functionality

If not already incorporated into the GIS solution, the Contractor will further develop the GIS Solution to include the following, where appropriate and practical in accordance with the Continuous Feature Integration process defined at article 6.9:

# 6.8.1 Geographical Map View

- a) the capability to add meta tags, comments or annotations on the geographical map view, particularly in offline mode, and allow for that information to be shared.
- b) provide the source of information for items on the geographical map view, when the information is external to the solution.
- c) allow for the filtering of geographical map overlay information according to pertinent criteria related to that information.
- d) provide the user with the ability to export static geographical map views in PDF format.
- e) allow for showing and hiding geographical map view overlays.
- f) provide the functionality to group geographical map view overlays by theme.

### 6.8.2 Analysis Tools

- g) provide the user with the capability to perform multi-overlay analysis on the geographical map view.
- h) provide the user with the capability to perform proximity analysis (for example: buffers).

# 6.8.3 Offline / Disconnected Mode

allow the user to overlay undocked information upon the geographical map view.

#### 6.8.4 Historical Data

- j) have a mechanism to efficiently store spatiotemporal data from live data feeds.
- k) allow for the management and storage of large volumes of data, 5 TB or more.
- l) allow for the display of spatiotemporal information sets as overlays to the geographical map view.
- m) allow the capability to calculate statistics on maritime traffic for certain areas and display reports.
- n) allow for the import of spatiotemporal data in a standard GIS formats.
- o) allow for the playback of temporal streams as overlays to the geographical map view.

# 6.8.5 Reporting

p) have the capability to summarize information with the use of tables and graphics.

#### 6.8.6 General

- q) have the capability to export and import data in common formats such as CSV, KML, JSON or Shapefile.
- r) allow for information to be made available via web services to other GIS solutions.
- s) after offline use, the mobile device can be reconnected to be online, at which time, the data is uploaded, and the application is auto-sync'd for maintenance updates.

# 6.9 Continuous Feature Integration

The Project Authority will identify, analyse and determine enhancements, features and functionality to be incorporated into the GIS solution. The Project Authority will establish and maintain a priority queue of functionalities based on end-user requirements. The goal is to plan and schedule a minimum of four releases during the pilot period (one per quarter) based on the priority queue.

Based on priorities identified by the Project Authority, the Contractor will determine the most efficient approach to developing enhancements and additional functionalities. An agile project management approach is encouraged as the priority queue and functionalities will change over the course of the pilot project based on user needs and input.

The Contractor will have ongoing access to the continuously updated priority queue and is expected to identify the features they will integrate into the solution, taking into account interdependencies, as well

as the category(ies) of work, anticipated level of effort, and cost associated with completion of each additional feature in the priority queue. The Contractor must provide this information to the Project Authority on a weekly basis in advance of undertaking the work. The Project Authority will authorize the work. The Project Authority retains discretion to redefine the priority queue at any time. Appendix 3 to Annex A, Statement of Work, is representative of the Priority Queue.

# 6.9.1 User Acceptance Testing

The Contractor must, with the advance approval of the Project Authority, undertake user acceptance testing prior to each release. The Contractor must schedule the testing with the ten communities participating in the pilot, the Project Authority and the designated GIS users for Transport Canada.

Features that are deemed unacceptable by the end-user community will not be included in the release and will be returned to the priority queue.

### **6.10 Support Services**

**Licensed Software Subscription Services Support** includes the following Technical Hotline Support and E-mail Support services:

- a. The Contractor must provide technical support services to Transport Canada and the coastal community users on an as requested basis. Technical support resources made available by the Contractor must be knowledgeable and available to provide support during normal business hours in the community serviced. This includes being available via telephone and email to the Project Authority during the implementation of the Solution.
- b. The Contractor must provide a 1-800 number to the pilot communities for the duration of the contract to support the provision of technical support. In addition, an email account allowing pilot communities to seek technical support in writing must also be made available.
- c. The Contractor must be available between 8:00am EST and 8:00pm EST, seven (7) days per week and assure availability of the system as:
  - 97.5% of the time over any 24-hour period;
  - 99.5% over any one (1) month; and,
  - 99.7% over a year.

It is currently anticipated that the total number of system users will be 190, with approximately up to 30 concurrent users.

#### 6.10.1 Reporting

# 6.10.1.1 Monthly

On a monthly basis, during the pilot period, the Contractor must submit a report detailing (with geographic breakdown) the total number of service support calls per week, month, the type of call, time of calls, form of communication, response time and resolution. Note: After the one-year pilot project period, quarterly reports are required in place of monthly reports.

The Contractor must provide usage reports to the Project Authority detailing the following:

- The number of days per month that the system is online and available to users;
- Solution usage information (type of users; geographic location of users; data usage, number of logins per user, how much time users typically spend on the system, areas of primary use, and user settings); and
- Number of new versions released, including number of new requirements added and enhancements/changes made.

#### 6.10.1.2 Annual

At the conclusion of the one-year pilot project, the Contractor must prepare an Annual Report based on the monthly reports and information gathered on training statistics.

# **6.11** Progress Review Meetings

Throughout the duration of the contract, the Contractor must attend weekly progress review meetings by teleconference or videoconference to provide updates to the Project Authority on progress towards completion of the work.

Progress review meetings will be conducted by teleconference or videoconference, as appropriate. The meetings will be scheduled by the Project Authority, and all pertinent details such as teleconferencing or videoconferencing information shall be provided to the Contractor by the Project Authority not less than 24 hours in advance. The Contractor must respond to inquiries pertaining to the completion of deliverables on an ad hoc basis within one business day.

The Contractor will prepare a Record of Discussion for each progress review meeting and provide it to the Project Authority electronically within two business days of the progress review meeting.

#### 6.12 Project Close Out

At the completion of the contract, at the request of the Project Authority, the Contractor must close out the GIS Solution over a period not to exceed two (2) months. Close out includes transferring all data generated during the contract period associated with the GIS Solution to a designated Government of Canada data storage location defined by the Project Authority. The GIS Solution must not be available to the host communities and no technical support is required during this two month period. The Contractor will be required to provide feedback and input into a report outlining the findings of the pilot project and their general experience with this project.

# 7. DELIVERABLES and SCHEDULE - PART 2 (Option Period 1)

#### 7.1 Review and Acceptance

#### 7.1.1 Solution Deliverables

Final acceptance of the GIS Solution will occur when all discrepancies, errors or other deficiencies identified in writing by the Project Authority have been resolved, either through documentation updates, program correction or other methods approved by the Project Authority.

# 7.1.2 Documentation Deliverables

Final acceptance of the GIS Solution documentation will occur when all errors or deficiencies identified in writing by the Project Authority have been addressed by the Contractor and approved by the Project Authority.

# 7.1.3 Deliverables

The Project Launch is defined as the date of execution of Option Period 1.

Item	Ref.	Description	Estimated Delivery Dates
1	6.2	Final Implementation and Release Plan	15 business days from Project
1	0.2	Tillal implementation and Release Flair	Launch
2	6.3	Final Support Services Plan	15 business days from Project
	0.5	Tillal Support Services Flair	Launch
3	6.4	Final Indigenous Training Plan	15 business days from Project
3	0.4	Tillal illulgerious Traillillig Flati	Launch
4	6.6	Draft Training Material and Support Documentation	10 business days from Project
4	0.0	Draft frailing Material and Support Documentation	Launch
5	6.6	Final Training Material and Support Documentation	15 business days from Project
3	0.0		Launch
6	6.6	Final Training Schedule	20 business days from Project
0	0.0	Filial Halfillig Scriedule	Launch
7	6.5	Pilot Site Launch	40 business days from Project
,	0.5	Filot Site Lauricii	Launch
8	6.6	User Training	30 business days from Project
8	0.0	Oser Hairing	Launch
9	6.10	Weekly Progress Meeting Record of Decision	Weekly
10	6.2	Draft Release Notes for each Release	Quarterly
11	6.2	Final Release Notes for each Release	Quarterly
12	6.10.1.1	Service Level Support Report	Monthly
13	6.10.1.1	GIS Solution Usage Reports	Monthly
14	6.10.1.2	Annual Service Level and GIS Usage Report	Annual

# 7.2 Delivery Points

Indigenous Communities		
Maritime Aboriginal Peoples Council	Truro Heights	Nova Scotia
Nunatsiavut Government	Nain	Labrador
Kahnawake First Nation	Kahnawake	Quebec
Essipit Innu First Nation Council	Essipit	Quebec
Ekaluktutiak Hunters and Trappers Organization	Cambridge Bay	Nunavut
Tutktoyaktuk Hunters and Trappers Committee	Tuktoyaktuk	Northwest Territories
Council of Haida Nation	Skidegate, Haida Gwaii	British Columbia
Gitga'at First Nation	Hartley Bay	British Columbia

T'Souke First Nation	Sooke	British Columbia
Pacheedat First Nation	Port Renfrew	British Columbia
Transport Canada	Ottawa	Ontario
	Vancouver	British Columbia
	Victoria	British Columbia
Fisheries & Oceans Canada	Ottawa	Ontario
	Vancouver	British Columbia
	Victoria	British Columbia
Canadian Coast Guard	Ottawa	Ontario
	Vancouver*	British Columbia
	Victoria	British Columbia
Environment and Climate Change Canada	Ottawa	Ontario
	Vancouver	British Columbia
	Victoria*	British Columbia

<sup>\*</sup>Tentative

#### 8. DEPARTMENTAL SUPPORT

The Project Authority will be responsible for assisting in the coordination of the overall project, providing as-required direction and guidance to the Contractor, and accepting and approving deliverables on behalf of Transport Canada.

The Project Authority will ensure that appropriate subject matter experts from within TC are available to the Contractor as required to provide input, answer questions, evaluate deliverables and participate in meetings, to enable him/her to proceed on schedule with the completion of all assigned deliverables.

As required, TC will provide the Contractor with other assistance as deemed necessary to enable him/her to proceed on schedule with the completion of assigned deliverables.

#### 9. TECHNICAL ENVIRONMENT

# 9.1 Browser Compatibility

If a web-based solution is proposed, the solution must be compatible with Firefox, Chrome, Internet Explorer and Microsoft Edge browsers. It must support the latest version of the relevant browsers, with a tolerance for three (3) minor versions back.

The solution should not require the installation of any browser plug-in or additional software on the client system. An exception to these requirements must be justified in writing by the Contractor and accepted by the Project Authority.

# 9.2 Integration with Existing Systems

The solution must be able to integrate data layers from the Government of Canada's open data portal as well as other data layers provided by communities in open-standard file formats. Appendix 2 to Annex A, Potential Sources of Data identifies the available formats.

# 9.3 Reports

All draft and final reports and documentation must be submitted in the following formats:

Microsoft Office (Word, Excel, Presentations)
Adobe portable document format
Images must be compatible with Microsoft Office and Adobe

#### 10. LANGUAGE OF WORK

Notwithstanding the bilingual requirements of the solution, the deliverables must be submitted in English and French. All communication with the Project Authority will be conducted in English.

The service support is to be made available in both English and French, as dictated by the end-user.

#### 11. LOCATION OF WORK

The work will be conducted at the Contractors facilities.

#### 11.1 Travel

Travel to the ten coastal communities may be required as part of the work. The Contractor will be compensated for travel as detailed in Annex B, Basis of Payment.

#### 12. GOVERNMENT SUPPLIED INFORMATION

The Project Authority will provide, upon contract award, an AIS data feed to be integrated to the GIS solution, specifically, a Web Mapping Service (WMS) for Electronic Navigation Charts (ENC) from the Canadian Hydrographic service (CHS). Any commercial use or further sharing of any AIS data beyond the purpose of the contract or outside of the solution is strictly prohibited. This provision applies to both real-time AIS data and historical data.

In addition, ownership of any datasets provided by a participating host community remains the sole property of the community and may not be shared or used for other purposes.

The Contractor is not to release to any party the data gathered or information gained in the process of completing this project, without the express written permission of the Project Authority.

#### 13. CATEGORIES OF WORK

Appendix 1 to Annex A identifies the categories of work, including a description, that may be required to undertake work on this requirement.

# Appendix 1 to Annex A Categories of Work and Descriptions

# **Geomatics Analyst**

#### Responsibilities could include but are not limited to:

- Develops and documents detailed statements of requirement.
- Analyzes functional requirements to identify information, procedures and decision flows.
- Evaluates existing procedures and methods, identifies and documents database content, structure and application sub-systems, and develops data dictionary.
- Defines and documents interfaces of manual to automated operations within sub-systems, to external systems and between new and existing systems.
- Defines input/output sources, including a detailed plan for technical design phase, and obtains approval of same.
- Designs and documents in detail all system components, their interfaces and operational environment.
- Designs data structures and files, sub-systems and modules, programs, batch, on line, and production monitoring procedures, testing strategy and systems.
- Documents system design, concepts and facilities, presents and obtains approval of detailed system design.
- Produces an operational system including all forms, manuals, programs, data files and procedures.
- Provides advice on GIS and Remote Sensing technology and its application.
- Performs analysis and modeling.
- Designs and implements functional prototypes.
- Interprets project objectives and creates appropriate data, analysis and output products (maps, reports).
- Restructures data from various sources and in diverse formats.
- Creates and updates metadata.
- Creates, updates and maintains procedures and standards.
- Creates, updates, revises and documents data sets.
- Designs processes for performing earth observation (EO) image processing.
- Analyses and processes EO data.
- Designs and writes GIS and/or Remote Sensing related programs.

#### **Geomatics Specialist**

- Implements data structures and files, sub-systems and modules, programs, batch, on line, and production monitoring procedures, testing strategy and systems.
- Tests and implements small systems and sub-systems of larger systems.
- Produces forms, manuals, programs, data files and procedures.
- Produces components of an operational system including all forms, manuals, programs, data files and procedures.
- Performs analysis and modeling.
- Creates, updates, revises and documents GIS and/or earth observation data sets.

- Creates appropriate data, analysis and output products (maps, reports) to meet project objectives.
- Restructures data from various sources and in diverse formats.
- Creates and updates metadata.
- Creates, updates and maintains procedures and standards.
- Supports the design of, and writes, GIS and remote sensing related programs.

Analyses and processes earth observation (EO) image and GIS data.

# **GIS Applications Analyst**

# Responsibilities could include but are not limited to:

- Develops and documents detailed statements of requirement.
- Analyzes functional requirements to identify information, procedures and decision flows.
- Evaluates existing procedures and methods, identifies and documents database content, structure and application sub-systems, and develops data dictionary.
- Defines and documents interfaces of manual to automated operations within sub-systems, to external systems and between new and existing systems.
- Defines input/output sources, including a detailed plan for technical design phase, and obtains approval of same.
- Designs and documents in detail all system components, their interfaces and operational environment.
- Designs data structures and files, sub-systems and modules, programs, batch, on line, and production monitoring procedures, testing strategy and systems.
- Documents system design, concepts and facilities, presents and obtains approval of detailed system design.
- Produces an operational system including all forms, manuals, programs, data files and procedures.
- Performs manual code changes.
- Performs screen and report changes.
- Gathers and analyzes data for the conduct of studies to establish the technical and economic feasibility of proposed computer systems, and for the development of functional and system design specifications.
- Designs methods and procedures for small computer systems and sub-systems of larger systems.
- Develops, tests and implements small systems and sub-systems of larger systems.
- Produces forms, manuals, programs, data files and procedures.
- Provides advice on GIS technology and its application.
- Designs and implements functional prototypes.
- Performs analysis and modeling.

#### **GIS Application Architect**

# Responsibilities could include but are not limited to:

 Designing and developing the application architecture for the project, in the context of the overall system architecture.

- Selecting the paradigm and technology for application program-to-program communication (APPC) among the components.
- Defining the application tiers, frameworks, components types and interfaces.
- Specifying and providing ownership of reusable application components or reusable application code.
- Identifying key business and technology drivers that impact application architectures, such as
  end-user community requirements, existing software distribution capabilities, existing
  application environment (including legacy and packaged systems), and performance and
  availability requirements, and designing application architecture to meet these
  considerations.
- Defining strategies and plans for application rationalization and retirement in the context of the project's phasing strategy.
- Developing and maintaining coding standards.
- Leading the application development team in architecture decisions and reviewing/authorizing development team architecture decisions.

# Leading code design reviews.

 Monitoring and supporting the development of the system's applications to ensure they are compliant with the application architecture, and refines the application architecture as required.

#### **GIS Data Architect**

# Responsibilities could include but are not limited to:

- Designing and developing the data architecture for the project, in the context of the overall system architecture.
- Setting Data Policy and the technical solution for the management, storage, access, navigation, movement, and transformation of data.
- Specifying recommended DBMS and ETL tools and technologies for structured and unstructured content.
- Designing the Metadata Repository.
- Creating a data model for the project that is independent of the technology solution.
- Examining and enforcing opportunities to provide data reuse, balancing the issues of centralization and replication.
- Ensuring the preservation of strategic data assets as applications and technologies evolve.
   Monitoring and supporting the development of the system's data to ensure it is compliant with the data architecture, and refine the data architecture as required.

#### **GIS Infrastructure Architect**

- Designing and developing the infrastructure architecture for the project, in the context of the overall system architecture.
- Focusing on the standards and technologies for enabling systems performance qualities, such as availability, scalability, recoverability, etc.
- Evaluating and selecting the system's server hardware, operating system and job control.

- Supporting the GIS Application Architect in selecting the application framework.
- Balancing the quality issues cost vs. robustness, and hardware architecture.
- In conjunction with the System Architecture team, sizing the application and selecting the hardware and software configuration.
- Establishing a process to monitor system performance against requirements.
- Monitoring and supporting the development of the system's infrastructure to ensure it is compliant with the infrastructure architecture, and refining the infrastructure architecture as required.

## **GIS Programmer/Analyst**

# Responsibilities could include but are not limited to:

- Provide operational, technical and analytical expertise to GIS projects by understanding how to apply the principles and practices of GIS as a decision support tool.
- Translate spatially related user requirements and technical systems specifications into
  working, tested GIS applications, including developing detailed programming specifications,
  writing and/or generating code, compiling and integrating data driven programs and systems,
  interacting with spatial databases and conducting unit tests.

# **GIS Project Manager**

# Responsibilities could include but are not limited to:

### Within both the IT and GIS system environments:

- Defines and documents the objectives for the project; determines budgetary requirements, the composition, roles and responsibilities, and terms of reference for the project team.
- Manages the project during the development, implementation and operations startup by
  ensuring that resources are made available, and that the project is developed, and made fully
  operational within agreed time, cost and performance parameters.
- Formulates statements of problems; establishes procedures for the development and implementation of significant, new or modified project elements to solve these problems, and obtains approval thereof.
- Reports progress of the project on an ongoing basis and at scheduled points in the life cycle.
- Meets in conference with stakeholders and states problems in a form capable of being solved.
- Prepares plans, charts, tables and diagrams to assist in analyzing or displaying problems;
   works with a variety of project management tools.
- Project sign-off

# **GIS System Architect**

- Designing the overall target architecture of the IT system to meet the formally established requirements (functional and non-functional) of a project.
- Monitoring and supporting the development of the system to ensure it is compliant with the target architecture and refining the target architecture as required.
- Ensuring the integration of the system's component architectures data, application, infrastructure, etc., into the overall target system architecture.

- Ensuring the integration of the system architecture into the sponsoring organization's enterprise architecture.
- Establishing phased project plans that lead to a completed target architecture.
- Leading the development of architecture Guiding Principles and architecture blueprints.
- Ensuring the systems overall viability throughout the systems development and implementation phases;
- Ensuring the solution and the scope is compliant with the stated requirements (quality control).
- Balancing trade-offs between requirements and costs for the system and communicating the issues to the Technical Authority.
- Surveying emerging developments, new technologies, standards and methodologies that will
  have a positive impact on the system architecture, and incorporating these into the system
  architecture.
- Managing the System Architecture team to achieve these goals.

# **GIS Web Mapping Developer**

# Responsibilities could include but are not limited to:

- Developing and preparing diagrammatic plans for web based service delivery over the Internet.
- Analyzing the problems outlined by systems analysts/designers in terms of such factors as style and extent of information to be transferred across the Internet.
- Selecting and using the best available web development tools for linking the Internet-based client to the IT system's "back end" information delivery programs and databases. Designing high-usability web pages to meet the requirement.
- Verifying accuracy and completeness of programs by preparing sample data and testing them by means of system acceptance test runs made by operating personnel.
- Correcting program errors by revising instructions or altering the sequence of operations.
- Testing instructions, and assembling specifications, flow charts, diagrams, layouts, programming and operating instructions to document applications for later modification or reference.

# **Mapping Technician**

# Responsibilities could include but are not limited to:

- Plan map content, format and design and compile required data from aerial photographs, survey notes, records, reports and other maps.
- Generate maps and related graphs and charts using digital mapping techniques, computer interactive graphics, computer assisted design and drafting (CAD) software, and geographic information systems (GIS) software.

### **Application / Software Architect**

# Responsibilities could include but are not limited to:

• Develop technical architectures, frameworks and strategies, either for an organization or for a major application area, to meet the business and application requirements.

- Identify the policies and requirements that drive out a particular solution.
- Analyze and evaluate alternative technology solutions to meet business problems.
- Ensures the integration of all aspects of technology solutions.
- Monitor industry trends to ensure that solutions fit with government and industry directions for technology.
- Analyze functional requirements to identify information, procedures and decision flows.
- Evaluate existing procedures and methods, identify and document database content, structure, and application sub-systems, and develop data dictionary.
- Define and document interfaces of manual to automated operations within application subsystems, to external systems and between new and existing systems.
- Define input/output sources, including detailed plan for technical design phase, and obtain approval of the system proposal.
- Identify and document system specific standards relating to programming, documentation and testing, covering program libraries, data dictionaries, naming conventions, etc.

# **ERP System Analyst**

# Responsibilities could include but are not limited to:

- Develop requirements, feasibility, cost, design, and specification documents for ERP systems.
- Implement ERP systems to support projects, departments, organizations or businesses.
- Translate ERP business requirements into systems design and specifications.
- Analyse and recommend alternatives and options for solutions.
- Develop technical specifications for ERP systems development, design and implementation.

#### **ERP Technical Analyst**

# Responsibilities could include but are not limited to:

- Comprehensive understanding of the technical capabilities offered by ERP facilities.
- Develop or assist with business and functional requirements, project scope, estimates of effort and duration.
- Translate functional and business requirements into technical requirements.
- Develop and/or manage technical aspects of application software, user interfaces, and third-party components.
- Conduct, assist with, and/or manage unit and system tests.
- Establish technical standards for the technical framework.

# **Programmer / Software Developer**

- Develop and prepare diagrammatic plans for solution of business, scientific and technical problems by means of computer systems of significant size and complexity.
- Analyze the problems outlined by the systems analysts/designers in terms of such factors as style and extent of information to be transferred to and from storage units, variety of items to be processed, extent of sorting, and format of final printed results.
- Select and incorporate available software programs.

- Design detailed programs, flow charts, and diagrams indicating mathematical computation and sequence of machine operations necessary to copy and process data and print the results.
- Translate detailed flow charts into coded machine instructions and confer with technical personnel in planning programs.
- Verify accuracy and completeness of programs by preparing sample data, and testing them by means of system acceptance test runs made by operating personnel.
- Correct program errors by revising instructions or altering the sequence of operations.
- Test instructions, and assemble specifications, flow charts, diagrams, layouts, programming and operating instructions to document applications for later modification or reference.

# **System Analyst**

# Responsibilities could include but are not limited to:

- Develop requirements, feasibility, cost, design, and specification documents for systems.
- Implement systems to support projects, departments, organizations or businesses.
- Translate business requirements into systems design and specifications.
- Analyse and recommend alternatives and options for solutions.
- Develop technical specifications for systems development, design and implementation.

#### **Test Coordinator**

# Responsibilities could include but are not limited to:

- Provide advice, guidance and coordination efforts for test strategies and plans, selection of automated testing tools, and identification of resources required for testing.
- Plan, organize, and schedule testing efforts for large systems, including the execution of systems integration tests, specialized tests, and user acceptance testing (e.g., stress tests).

#### Tester

- Test planning and coordination.
- Supervision of testing in accordance with the plan.
- Management and monitoring of test plans for all levels of testing.
- Management of walkthroughs and reviews related to testing and implementation readiness.
- Status reporting.
- Development of test scenarios and test scripts.
- Establishing and maintaining source and object code libraries for a multi-platform, multioperating system environment.
- Establishing software testing procedures for unit test, integration testing and regression testing with emphasis on automating the testing procedures.
- Establishing and operating "interoperability" testing procedures to ensure that the interaction and co-existence of various software elements, which are proposed to be distributed on the common infrastructure, conform to appropriate departmental standards (e.g. For performance, compatibility, etc.) and have no unforeseen detrimental effects on the shared infrastructure.

 Establishing a validation and verification capability which assumes functional and performance compliance.

#### **WEB Architect**

### Responsibilities could include but are not limited to:

- Define architecture to be used in web-based projects.
- Perform architectural modeling to ensure consistency of the design with existing work.
- Select the development language to be used for the project.
- Assess the impact of the new requirements on existing web applications.
- Develop code based upon design and requirements documents.
- Write code to write to and read from the database.
- Unit test the code prior to releasing it for integration testing.
- Monitor the need for architectural changes as the project progresses.
- Develop test plans for testing the system.
- Ensure functionalities have been implemented according to specifications.
- Define assumptions and constraints of architecture with regard to physical structure and data collection.
- Develop post-implementation plan for monitoring/tracking architecture stability.

# **Business Analyst**

# Responsibilities could include but are not limited to:

- Develop and document statements of requirements for considered alternatives.
- Perform business analyses of functional requirements to identify information, procedures, and decision flows.
- Evaluate existing procedures and methods, identify and document items such as database content, structure, application subsystems.
- Define and document interfaces of manual to automated operations within application subsystems, to external systems, and between new and existing systems.
- Establish acceptance test criteria with client.
- Support and use the selected departmental methodologies.

#### **Help Desk Specialist**

- Perform a variety of network problem analysis and monitoring tasks, monitor network management systems and respond appropriately to user requests and problems
- Perform initial problem analysis and triage problem to other appropriate staff when appropriate.
- Maintain liaison with network users and technical staff to communicate the status of problem resolution to network users; log and track requests for assistance.
- Develop, implement, and/or participate in the preparation of procedure manuals and documentation for help desk use; conduct periodic user satisfaction surveys and track user problem trends; make recommendations for improvements to the network systems and create reports based on information provided from user surveys and trends.

- Develop, implement, and/or participate in the distribution of network related information to users to include information such as help desk procedures and network handbooks.
- Participate in the development of a comprehensive training plan for help desk procedures; assist in training personnel providing backup coverage.
- Participate in on-site installations of network systems for users.
- Perform other related duties incidental to the work described herein.

### **Technical Writer**

#### Responsibilities could include but are not limited to:

- Document help text, user manuals, technical documentation, web page content, etc.
- Review documentation standards and the existing project documentation.
- Determine documentation requirements and makes plans for meeting them.
- Gather information concerning the features and functions provided by the developers.
- Assess the audience for the documents/manuals which are required and prepare a statement of purpose and scope for each.
- Develop a table of content for each document/manual and write or edit the required content.
- Investigate the accuracy of the information collected by making direct use of the material being documented.
- Prepare or coordinate the preparation of any required illustrations and diagrams.
- Design the layout of the documents/manuals.
- Use word-processing, desk-top publishing and graphics software packages to produce final camera-ready copy.

#### **Network Security Analyst**

- Review, analyze, and/or apply:
  - o Internet security protocols such as SSL, S-HTTP, S-MIME, IPSec, SSH
  - o TCP/IP, UDP, DNS, SMTP, SNMP
  - Approved GC Cryptographic Algorithms
  - o Directory Standards such as X.400, X.500, and SMTP
  - Networking Protocols (e.g., HTTP, FTP, Telnet)
  - o Network hardening (for example: shell scripting, service identification)
  - Technical IT Security safeguards
  - IT Security tools and techniques
  - o Operating Systems such as MS, Unix, Linux, and Novell
  - Intrusion detection systems and firewalls
  - o Network routers, multiplexers and switches
  - Wireless technology
- Analyze security data and provide advisories and reports
- Conduct impact analysis for new software implementations, major configuration changes and patch management
- Develop proof-of-concept models and trials for IT Security
- Design/develop IT Security protocols
- Identify and analyze technical threats to, and vulnerabilities of, networks
- Analyze IT Security tools and techniques

- Complete tasks related to authorization and authentication in physical and logical environments
- Prepare tailored IT Security alerts and advisories from open and closed sources
- Complete tasks directly supporting the departmental IT Security and Cyber Protection Program
- Develop and deliver training material relevant to the resource category

### **Project Executive**

# Responsibilities could include but are not limited to:

- Manage several Project Managers, each responsible for an element of the project and its associated project team.
- Define and document project objectives, determine budget requirements.
- Meet with other organizational executives to ensure all organizational (internal and external) stakeholders are committed and moving forward on project and organizational goals.
- Resolve issues related to the project.
- Prepare plans, charts, tables and diagrams to assist in analyzing or displaying problems; work with a variety of project management tools.
- Project sign-off.

# **Project Administrator**

#### Responsibilities could include but are not limited to:

- Assist project management and data processing professionals, technical users and end users in simple routine tasks.
- Provide administrative and technical support of a clerical nature as required to projects.
- Assist in performing such tasks as maintaining project documentation and application/system libraries.
- Acts as the first point of contact in a "hot-line" situation by accepting incoming calls, logging
  calls, attempting to resolve simple problems and following established procedures for more
  difficult problems.
- Tracks project change requests.
- Maintain and updates relevant project information in manual and/or electronic files; project information might include such things as project activity schedule, status reports, correspondence.
- Use computer tools, aids, system control languages on PCs, minis, or mainframes to perform work.
- Communicates with project management and data processing professionals, technical users and end users on administrative matters related to the project.

# **Project Coordinator**

- Assist project management and data processing professionals, technical users and end users in project coordination and synchronization tasks.
- Provide administrative and technical support of a clerical nature as required to a project team.

- Assist in performing such tasks as maintaining project documentation and application/system libraries.
- Act as the first or single point of contact in a "hot-line" situation by accepting incoming calls, logging calls, attempting to resolve simple problems and following established procedures for more difficult problems.
- Track project change requests.
- Maintain and updates relevant project information in manual and/or electronic files; project information might include such things as project activity schedule, status reports, correspondence.
- Use computer tools, aids, system control languages on PCs, minis, or mainframes to perform work.
- Communicate with project management and data processing professionals, technical users and end users on administrative matters related to the project.

# **Project Leader**

# Responsibilities could include but are not limited to:

- Specify the general requirements of the system, develop broad system alternatives and identify their administrative, economic and technical feasibility and practicality as well as associated policy and organizational change requirements.
- Analyse and evaluate each alternative based on make/buy, impact and cost/benefit
  considerations, and propose, justify, plan and cost the implementation of the selected
  alternative.
- Produce overall plan, a detailed plan for the functional analysis phase, and obtain approval of preliminary analysis.
- Plan, direct and control the activities of a system development team within scheduled time and cost parameters.
- Evaluate proposed computer applications to determine technical, operational and economic feasibility.
- Design and test systems to ensure that the objectives of the system are met and that the outputs produced are in accordance with client requirements.
- Monitor the design, implementation and operations start-up of the proposed system against established goals, objectives and milestones.

#### **Project Scheduler**

- Develop and support project schedules.
- Develop and maintain Work Breakdown Structures.
- Produce appropriate reports and identify scheduling and/or dependency issues.
- Conduct and provide critical path analysis.
- Assist in schedule co-ordination efforts with internal and external project stakeholders.

### **Quality Assurance Specialist/Analyst**

# Responsibilities could include but are not limited to:

- Lead development of test plans, test scripts and test data.
- Participate in functional and technical design reviews, perform integration/functional and system testing, and verify test results.
- Identify and document software defects.
- Participate with other project resources to resolve defects.
- Perform regression testing of software applications.

# **Data Conversion Specialist**

# Responsibilities could include but are not limited to:

- Oversee all facilities of the conversion process.
- Complete mapping, interfaces, mock conversion work, enhancements, actual conversion, and verify completeness and accuracy of converted data.
- Establish a strong working relationship with all clients, interact effectively with all levels of client personnel, and provide conversion support.
- Analyze and coordinate data file conversions.
- Work with importing files from heterogeneous platforms.

#### **Database Administrator**

#### Responsibilities could include but are not limited to:

- Customize database conversion routines.
- Finalize Conversion Strategy.
- Generate new database with the client.
- Maintain data dictionaries.
- Develop and implement procedures that will ensure the accuracy, completeness, and timeliness of data stored in the database.
- Develop and implement security procedures for the database, including access and user account management.
- Advise programmers, analysts, and users about the efficient use of data.
- Maintain configuration control of the database.
- Perform and/or coordinate updates to the database design.
- Control and coordinate changes to the database, including the deletion of records, changes to the existing records, additions to the database.
- Develop and coordinate back-up, disaster recovery and virus protection procedures.

# **Database Analyst / IM Administrator**

- Define new database structures.
- Define data conversion strategy.
- Define database conversion specifications.
- Finalize Conversion Strategy.

- Work very closely with the users in order to maintain and safeguard the database.
- Identify requirements for improvements to existing databases by determining users' information requirements and system performance and functional requirements.
- Develop and implement procedures that will ensure the accuracy, completeness, and timeliness of data stored in the database.
- Mediates and resolves conflicts among users' needs for data.
- Advise programmers, analysts, and users about the efficient use of data.

#### **IM Architect**

# Responsibilities could include but are not limited to:

- Analyse existing capabilities and requirements, develop redesigned frameworks and recommend areas for improved capability and integration. Develop and document detailed statements of requirements.
- Evaluate existing procedures and methods, identify and document database content, structure, and application subsystems, and develop data dictionary.
- Define and document interfaces of manual to automated operations within application subsystems, to external systems, and between new and existing systems.
- Prototype potential solutions, provide tradeoff information and suggest recommended courses of action.
- Perform information modelling in support of BPR implementation.
- Perform cost/benefit analysis of implementing new processes and solutions.
- Provide advice in developing and integrating process and information models between business processes to eliminate information and process redundancies.
- Provide advice in defining new requirements and opportunities for applying efficient and effective solutions; identify and provide preliminary costs of potential options.

#### **Network Analyst**

# Responsibilities could include but are not limited to:

- Prepare implementation plans for particular technologies.
- Installs and monitors particular facets of technology.
- Configures and optimizes technical installations.
- Troubleshoots, and responds to user problems.
- Maintain up to date knowledge of particular technologies and products supporting that technology.

#### **Platform Analyst**

- Develop and document detailed statement of requirements for the proposed platform.
- Analyze functional requirements to identify information, procedures and decision flows.
- Evaluate existing procedures and methods, identify and documents database content, structure, and application sub-systems, and develop data dictionary.
- Define and document interfaces of manual to automated operations within sub-systems, to external systems and between new and existing systems.

- Define input/output sources, including detailed plan for technical design phase, and obtain approval for system proposals.
- Design and document in detail all system components, interfaces and operational environment.
- Design data structures and files, sub-systems and modules, programs, batch, on line, and production monitoring procedures, testing strategy and systems.
- Document system design, concepts and facilities, present and obtain approval of detailed system designs.
- Produce operational systems including all forms, manuals, programs, data files and procedures.

# **Storage Architect**

### Responsibilities could include but are not limited to:

- Develop, analyze, design, and implement the organization's storage infrastructure/architecture to ensure high levels of data quality and availability.
- Develop capacity planning, backup and restore procedures for storage capabilities.
- Develop or assist in development of data disaster recovery plans, as they relate to storage capabilities and continuity.
- Develop, implement, and oversee policies and procedures to ensure consistent and seamless storage continuity and capabilities.

#### **System Administrator**

#### Responsibilities could include but are not limited to:

- Install, monitor, upgrade and maintain operating systems.
- Install, monitor, upgrade and maintain hardware and software.
- Work with Business Analysts, Project Managers, Developers, and clients/stakeholders to maintain and improve software performance.
- Apply problem solving skills to troubleshoot and resolve technical problems.
- Ensure timely and reliable system administration procedures, such as backup and/or recovery.
- Analyze system performance and recommend improvements.

#### **Technical Architect**

- Develop technical architectures, frameworks and strategies, either for an organization or for a major application area, to meet the business and application requirements.
- Identify policies and requirements that drive out a particular solution.
- Analyze and evaluate alternative technology solutions to meet business problems.
- Ensure the integration of all aspects of technology solutions.
- Evaluate hardware and software relative to their ability to support specified requirements and, by determining potential and actual bottlenecks, and improve system performance through recommended hardware changes.

 Review computer software systems and data requirements as well as communication and response needs and determine operating systems and languages needed to support them.

# **Technology Architect**

- Develop technical architectures, frameworks and strategies, either for an organization or for a major application area, to meet the business and application requirements.
- Identify the policies and requirements that drive out a particular solution.
- Analyze and evaluate alternative technology solutions to meet business problems.
- Ensures the integration of all aspects of technology solutions.
- Monitor industry trends to ensure that solutions fit with government and industry directions for technology.
- Provide information, direction and support for emerging technologies.
- Perform impact analysis of technology changes.
- Provide support to applications and/or technical support teams in the proper application of existing infrastructure.
- Review application and program design or technical infrastructure design to ensure adherence to standards and to recommend performance improvements.

# Appendix 2 to Annex A Potential Sources of Data

Data from Federal Agencies

Data	Source	Format	Link
Protected Areas - Canada	Environment and Climate Change Canada	Esri REST Service, WMS	http://open.canada.ca
Tides, Currents and Water Level	Fisheries and Oceans Canada	WMS, WFS, JSON, KML	http://open.canada.ca
Oceans Act Marine Protected Areas	Fisheries and Oceans Canada	Esri REST Service	http://open.canada.ca
Ecologically and Biologically Significant Areas	Fisheries and Oceans Canada	Esri REST Service	http://open.canada.ca
Critical Habitat of Species at Risk	Fisheries and Oceans Canada	Esri REST Service	http://open.canada.ca
Other Effective Area-Based Conservation Measures	Fisheries and Oceans Canada	Esri REST Service	http://open.canada.ca
First Nations Location	Indigenous and Northern Affairs Canada	Esri REST Service, WFS, WMS, KML, XML, CSV, SHP, FGDB	http://open.canada.ca
Inuit Communities Location	Indigenous and Northern Affairs Canada	Esri REST Service, WFS, WMS, KML, XML, CSV, SHP, FGDB	http://open.canada.ca
Reported Observations of Aquatic Invasive Species	Fisheries and Oceans Canada	Мар	http://geoportal.gc.ca
AAFC Annual Unit Runoff in Canada - 2013	Agriculture and Agri-Food Canada; Science and Technology Branch	ESRI REST Service, FGDB, WMS, WFS, GML, PDF	https://open.canada.ca
Terrestrial Ecodistricts of Canada	Agriculture and Agri-Food Canada; Science and Technology Branch	ESRI REST Service, FGDB, GML, Web Application, PDF	https://open.canada.ca

Data	Source	Format	Link
Terrestrial Ecoprovinces of Canada	Agriculture and Agri-Food Canada; Science and Technology Branch	ESRI REST Service, FGDB, GML, Web Application, PDF	https://open.canada.ca
Terrestrial Ecoregions of Canada	Agriculture and Agri-Food Canada; Science and Technology Branch	ESRI REST Service, FGDB, GML, Web Application, PDF	https://open.canada.ca
Terrestrial Ecozones of Canada	Agriculture and Agri-Food Canada; Science and Technology Branch	ESRI REST Service, FGDB, GML, Web Application, PDF	https://open.canada.ca
National Long-term Water Quality Monitoring Data	Environment and Climate Change Canada	ESRI REST Service, WMS, CSV, XML, HTML	https://open.canada.ca
Shoreline Segmentation with SCAT (Atlantic and Arctic Shoreline Classification)	Environment and Climate Change Canada	ESRI REST service	http://maps-cartes.ec.gc.ca
Species Protect and Restore	Environment and Climate Change Canada	ESRI REST service	http://maps-cartes.ec.gc.ca
Atlantic Colonies - Density Analysis (Atlantic waterbirds)	Environment and Climate Change Canada; Canadian Wildlife Service	ESRI REST Service, WMS, SHP, CSV, GeoJSON, KML, WFS, HTML	https://open.canada.ca
Canadian Wetlands	Environment and Climate Change Canada; Canadian Wildlife Service	ESRI REST Service, FGDB, WMS	https://open.canada.ca
Pelagic Seabird Atlas, West Coast of Canada - Attribute Data, 2009	Environment and Climate Change Canada; Canadian Wildlife Service	CSV, HTML	https://open.canada.ca
Roberts Bank Shorebird Surveys, British Columbia - Predicted and Actual Counts, 1991-2015	Environment and Climate Change Canada; Canadian Wildlife Service	ESRI REST Service, WMS, SHP, CSV, GeoJSON, KML, WFS, HTML	https://open.canada.ca

Data	Source	Format	Link
Tofino Mudflats Shorebird Surveys, British Columbia - Survey Points, 2011	Environment and Climate Change Canada; Canadian Wildlife Service	ESRI REST Service, WMS, SHP, CSV, GeoJSON, KML, WFS, HTML	https://open.canada.ca
Atlantic Shoreline Classification	Environment and Climate Change Canada; National Environmental Emergencies Center (NEEC)	ESRI REST Service, WMS, CSV, FGDB, HTML	https://open.canada.ca
North Coast of British Columbia Shoreline Classification	Environment and Climate Change Canada; National Environmental Emergencies Center (NEEC)	ESRI REST Service, WMS, CSV, FGDB, HTML	https://open.canada.ca
Northern Canada Shoreline Classification	Environment and Climate Change Canada; National Environmental Emergencies Center (NEEC)	ESRI REST Service, WMS, CSV, FGDB, HTML	https://open.canada.ca
Ontario Shoreline Classification	Environment and Climate Change Canada; National Environmental Emergencies Center (NEEC)	ESRI REST Service, WMS, CSV, FGDB, HTML	https://open.canada.ca
Quebec - Saint-Lawrence River - Shoreline Classification	Environment and Climate Change Canada; National Environmental Emergencies Center (NEEC)	ESRI REST Service, WMS, CSV, FGDB, HTML	https://open.canada.ca
National Pollutant Release Inventory (NPRI)  – Geographic Distribution of Total Reported Releases to Water	Environment and Climate Change Canada; National Pollutant Release Inventory (NPRI)	ESRI REST Service, WMS, CSV, HTML	https://open.canada.ca
National Pollutant Release Inventory (NPRI) - Geographic Distribution Total Reported Disposals and Transfers	Environment and Climate Change Canada; National Pollutant Release Inventory (NPRI)	ESRI REST Service, WMS, CSV, HTML	https://open.canada.ca
ADAPT Canada Atlantic Fall 2016	Fisheries and Oceans Canada	WFS	https://inter-w01.dfo- mpo.gc.ca/arcgis/services/FGP

Data	Source	Format	Link
Argo Canada (global in situ ocean climate monitoring system)	Fisheries and Oceans Canada	NetCDF, GeoJSON, ESRI REST, WMS	https://open.canada.ca
Atlantic Zone Monitoring Program (AZMP) - Climate Indices	Fisheries and Oceans Canada	Web Application	http://www.meds-sdmm.dfo- mpo.gc.ca/isdm-gdsi/azmp- pmza/climat
Atlantic Zone Monitoring Program (AZMP) - Hydrographic Data	Fisheries and Oceans Canada	Web Application	http://www.meds-sdmm.dfo- mpo.gc.ca/isdm-gdsi/azmp- pmza/hydro
British Columbia Lighthouse Sea-Surface Temperature and Salinity Data (Pacific), 1914-present	Fisheries and Oceans Canada	ESRI REST Service, CSV	https://open.canada.ca
Coastal Marine Conservation Units, British Columbia	Fisheries and Oceans Canada	WMS	https://inter-w01.dfo- mpo.gc.ca/arcgis/services/FGP
Federal Marine Bioregions	Fisheries and Oceans Canada	ESRI REST Service	https://open.canada.ca
Fisheries and Oceans Canada Species at Risk Distribution (Range)	Fisheries and Oceans Canada	ESRI REST Service, PDF	https://open.canada.ca
Fluorometer Data, Southern Vancouver Island (Pacific), 2004-2014	Fisheries and Oceans Canada	ESRI REST Service, CSV	https://open.canada.ca
Harbour seal (Phoca vitulina) counts and haulout locations in the Strait of Georgia, British Columbia coast	Fisheries and Oceans Canada	ESRI REST Service, CSV	https://open.canada.ca

Data	Source	Format	Link
Institute of Ocean Sciences Moored Instrument Data (Arctic), 1974-present	Fisheries and Oceans Canada	ESRI REST Service, CSV	https://open.canada.ca
Institute of Ocean Sciences Moored Instrument Data (Pacific), 1965-present	Fisheries and Oceans Canada	ESRI REST Service, CSV	https://open.canada.ca
Large Gorgonian Coral Fields in the Eastern Arctic (Campelen Trawl Sample)	Fisheries and Oceans Canada	ESRI REST Service	https://open.canada.ca
Large Gorgonian Coral Fields in the Newfoundland-Labrador Shelves (Campelen Trawl Sample)	Fisheries and Oceans Canada	ESRI REST Service	https://open.canada.ca
Large Gorgonian Coral Fields in the Scotian Shelf (Western IIA Trawl Sample)	Fisheries and Oceans Canada	ESRI REST Service	https://open.canada.ca
Ocean Data Inventory ( ODI ): A Database of Ocean Current, Temperature and Salinity Time Series for the Northwest Atlantic	Fisheries and Oceans Canada	ESRI REST Service, CSV, PDF, HTML	https://open.canada.ca
Optical, chemical, and biological oceanographic conditions on the Scotian Shelf and in the eastern Gulf of Maine in 2012	Fisheries and Oceans Canada	CSV	https://open.canada.ca
Optical, chemical, and biological oceanographic conditions on the Scotian Shelf and in the eastern Gulf of Maine in 2013	Fisheries and Oceans Canada	CSV	https://open.canada.ca

Data	Source	Format	Link
Optical, chemical, and biological oceanographic conditions on the Scotian Shelf and in the eastern Gulf of Maine in 2014	Fisheries and Oceans Canada	CSV	https://open.canada.ca
Optical, chemical, and biological oceanographic conditions on the Scotian Shelf and in the eastern Gulf of Maine in 2015	Fisheries and Oceans Canada	CSV	https://open.canada.ca
Pacific Recreational Fishery Salmon Head Depots	Fisheries and Oceans Canada	ESRI REST Service, CSV	https://open.canada.ca
Sea Pen Fields in the Eastern Arctic (Alfredo Trawl Sample)	Fisheries and Oceans Canada	ESRI REST Service	https://open.canada.ca
Sea Pen Fields in the Eastern Arctic (Campelen Trawl Sample)	Fisheries and Oceans Canada	ESRI REST Service	https://open.canada.ca
Sea Pen Fields in the Eastern Arctic (Cosmos Trawl Sample)	Fisheries and Oceans Canada	ESRI REST Service	https://open.canada.ca
Sea Pen Fields in the Gulf (Campelen Trawl Sample)	Fisheries and Oceans Canada	ESRI REST Service	https://open.canada.ca
Sea Pen Fields in the Gulf (Western IIA Trawl Sample)	Fisheries and Oceans Canada	ESRI REST Service	https://open.canada.ca
Sea Pen Fields in the Newfoundland- Labrador Shelves (Campelen Trawl Sample)	Fisheries and Oceans Canada	ESRI REST Service	https://open.canada.ca
Sea Pen Fields in the Scotian Shelf (Western IIA Trawl Sample)	Fisheries and Oceans Canada	ESRI REST Service	https://open.canada.ca

Data	Source	Format	Link
Small Craft Fisheries	Fisheries and Oceans Canada	WMS	https://inter-w01.dfo- mpo.gc.ca/arcgis/services/FGP
Small Gorgonian Coral Fields in the Eastern Arctic (Campelen Trawl Sample)	Fisheries and Oceans Canada	ESRI REST Service	https://open.canada.ca
Small Gorgonian Coral Fields in the Newfoundland-Labrador Shelves (Campelen Trawl Sample)	Fisheries and Oceans Canada	ESRI REST Service	https://open.canada.ca
Sponge Fields in the Eastern Arctic (Alfredo Trawl Sample)	Fisheries and Oceans Canada	ESRI REST Service	https://open.canada.ca
Sponge Fields in the Eastern Arctic (Campelen Trawl Sample)	Fisheries and Oceans Canada	ESRI REST Service	https://open.canada.ca
Sponge Fields in the Eastern Arctic (Cosmos Trawl Sample)	Fisheries and Oceans Canada	ESRI REST Service	https://open.canada.ca
Sponge Fields in the Gulf (Campelen Trawl Sample)	Fisheries and Oceans Canada	ESRI REST Service	https://open.canada.ca
Sponge Fields in the Gulf (Western IIA Trawl Sample)	Fisheries and Oceans Canada	ESRI REST Service	https://open.canada.ca
Sponge Fields in the Newfoundland- Labrador Shelves (Campelen Trawl Sample)	Fisheries and Oceans Canada	ESRI REST Service	https://open.canada.ca
Sponge Fields in the Scotian Shelf (Western IIA Trawl Sample)	Fisheries and Oceans Canada	ESRI REST Service	https://open.canada.ca

Data	Source	Format	Link	
Steller sea lion (Eumetopias jubatus) counts and haulout locations across the British Columbia coast	Fisheries and Oceans Canada	ESRI REST Service, CSV	https://open.canada.ca	
Fish Health Database	Fisheries and Oceans Canada; Aquatic Animal Health Program	ESRI REST Service, CSV, HTML	https://open.canada.ca	
Northwest Atlantic Fisheries Organization (NAFO) Zones	Fisheries and Oceans Canada; Canadian Hydrographic Service	ESRI REST Service, SHP	https://open.canada.ca	
Aboriginal Agreements	Indigenous and Northern Affairs Canada	ESRI REST Service, WFS, WMS, KML, XML, CSV, SHP, FGDB	https://open.canada.ca	
Inuit Regions (Inuit Nunangat)	Indigenous and Northern Affairs Canada	ESRI REST Service, WFS, WMS, KML, XML, CSV, SHP, FGDB	https://open.canada.ca	
Post-1975 Treaties (Modern Treaties)	Indigenous and Northern Affairs Canada	ESRI REST Service, WFS, WMS, KML, XML, CSV, SHP, FGDB	L, https://open.canada.ca	
Pre-1975 Treaties (Historic Treaties)	Indigenous and Northern Affairs Canada	ESRI REST Service, WFS, WMS, KML, XML, CSV, SHP, FGDB	https://open.canada.ca	
Targeted Investments in First Nations Community Infrastructure	Indigenous and Northern Affairs Canada	ESRI REST Service, FGDB, SHP, WMS, WFS, CSV, XML, KML	https://open.canada.ca	
Community Well-Being	Indigenous and Northern Affairs Canada; Statistics Canada	a; ESRI REST Service http://webservices.maps.c		
Lakes, rivers and glaciers in Canada - CanVec Series - Hydrographic features	Natural Resources Canada	WMS, FGDB, SHP, KMZ, GML, HTML	https://open.canada.ca	

Data	Source	Format	Link
Mines, energy and communication networks in Canada - CanVec Series - Resources Management Features	Natural Resources Canada FGDB, SHP, WMS, KMZ, HTML, Web App		https://open.canada.ca
Observations signalées sur les espèces aquatiques	Natural Resources Canada	WFS	http://geoportal.gc.ca
Surficial Geology	Natural Resources Canada	WMS	https://open.canada.ca
West Coast Canadian National Marine Seismic Data Repository	Natural Resources Canada	KMZ, XLS, CSV	https://open.canada.ca
Probability of the annual minimum snow and ice (MSI) presence over Canada	Natural Resources Canada; Canada Centre for Mapping and Earth Observation	TIFF, IMG, ZIP	https://open.canada.ca
Canadian Disaster Database	Public Safety Canada	ESRI REST Service, FGDB, XLS	https://open.canada.ca
Stations marégraphiques	Ressources naturelles Canada	WMS	http://geoportal.gc.ca
Average annual runoff in Canada, 1971 to 2013	Statistics Canada; Environment, Energy and Transportation Statistics Division	ESRI REST Service, WMS, FGDB, SHP, XLS, PDF, HTML	https://open.canada.ca
Drainage Regions of Canada	Statistics Canada; Environment, Energy and Transportation Statistics Division	'' I https://open.capada.c	

Table 1 - Data from federal agencies

# Data from the Government of British Columbia and other British Columbia organizations

Data	Source	Format	Link	
Geographic locations of ocean ports	Ministry of Jobs, Trade and Technology	CSV, SHP, FGDB, GeoRSS, GeoJSON	https://catalogue.data.gov.bc.ca	
BC Ports and Terminals	Ministry of Forests, Lands, Natural Resource Operations and Rural Development	CSV, SHP, FGDB, GeoRSS, GeoJSON, KML, WMS	https://catalogue.data.gov.bc.ca	

Data	Source	Format	Link
First Responders	Ministry of Forests, Lands Natural Resource Operations and Rural Development	CSV, SHP, FGDB, GeoRSS, GeoJSON, KML, WMS	https://catalogue.data.gov.bc.ca
Coastal BC Marine Navigation Hazards - Line	Ministry of Forests, Lands, Natural Resource Operations and Rural Development	CSV, SHP, FGDB, GeoRSS, GeoJSON, KML, WMS	https://catalogue.data.gov.bc.ca
Coastal BC Marine Navigation Hazards - Point	Ministry of Forests, Lands, Natural Resource Operations and Rural Development	CSV, SHP, FGDB, GeoRSS, GeoJSON, KML, WMS	https://catalogue.data.gov.bc.ca
Coastal BC Boat Launches	Ministry of Forests, Lands, Natural Resource Operations and Rural Development	CSV, SHP, FGDB, GeoRSS, GeoJSON, KML, WMS	https://catalogue.data.gov.bc.ca
Coastal BC Marinas	Ministry of Forests, Lands, Natural Resource Operations and Rural Development	CSV, SHP, FGDB, GeoRSS, GeoJSON, KML, WMS	https://catalogue.data.gov.bc.ca
Coastal BC Moorages	Ministry of Forests, Lands, Natural Resource Operations and Rural Development	CSV, SHP, FGDB, GeoRSS, GeoJSON, KML, WMS	https://catalogue.data.gov.bc.ca
Shipwreck Point Locations	Ministry of Forests, Lands, Natural Resource Operations and Rural Development	CSV, SHP, FGDB, GeoRSS, GeoJSON, KML, WMS	https://catalogue.data.gov.bc.ca
Aquatic Invasive Species of British Columbia	Ministry of Environment and Climate Change Strategy	CSV, SHP, FGDB, GeoRSS, GeoJSON, KML, WMS	https://catalogue.data.gov.bc.ca
Shore Unit Classifications - Polygon	Ministry of Forests, Lands, Natural Resource Operations and Rural Development	CSV, SHP, FGDB, GeoRSS, GeoJSON, KML, WMS	https://catalogue.data.gov.bc.ca
Shore Unit Lines	Ministry of Forests, Lands, Natural Resource Operations and Rural Development	CSV, SHP, FGDB, GeoRSS, GeoJSON, KML, WMS	https://catalogue.data.gov.bc.ca
Recreational Fish Fishery	Ministry of Forests, Lands, Natural Resource Operations and Rural Development	CSV, SHP, FGDB, GeoRSS, GeoJSON, KML, WMS	https://catalogue.data.gov.bc.ca
Commercial Geoduck Fishery	Ministry of Forests, Lands, Natural Resource Operations and Rural Development	CSV, SHP, FGDB, GeoRSS, GeoJSON, KML, WMS	https://catalogue.data.gov.bc.ca
Commercial Seacucumber Fishery	Ministry of Forests, Lands, Natural Resource Operations and Rural Development	CSV, SHP, FGDB, GeoRSS, GeoJSON, KML, WMS	https://catalogue.data.gov.bc.ca

Data	Source	Format	Link	
Commercial Shrimp Fishery	Ministry of Forests, Lands, Natural Resource Operations and Rural Development	CSV, SHP, FGDB, GeoRSS, GeoJSON, KML, WMS	https://catalogue.data.gov.bc.ca	
Commercial Anchovy Fishery	Ministry of Forests, Lands, Natural Resource Operations and Rural Development	CSV, SHP, FGDB, GeoRSS, GeoJSON, KML, WMS	https://catalogue.data.gov.bc.ca	
Commercial Octopus Fishery	Ministry of Forests, Lands, Natural Resource Operations and Rural Development	CSV, SHP, FGDB, GeoRSS, GeoJSON, KML, WMS	https://catalogue.data.gov.bc.ca	
Commercial Squid Fishery	Ministry of Forests, Lands, Natural Resource Operations and Rural Development	CSV, SHP, FGDB, GeoRSS, GeoJSON, KML, WMS	https://catalogue.data.gov.bc.ca	
Commercial Scallop Fishery	Ministry of Forests, Lands, Natural Resource Operations and Rural Development	CSV, SHP, FGDB, GeoRSS, GeoJSON, KML, WMS	https://catalogue.data.gov.bc.ca	
Commercial Gooseneck Barnacle Fishery	Ministry of Forests, Lands, Natural Resource Operations and Rural Development	CSV, SHP, FGDB, GeoRSS, GeoJSON, KML, WMS	https://catalogue.data.gov.bc.ca	
Commercial Herring Roe Fishery	Ministry of Forests, Lands, Natural Resource Operations and Rural Development	CSV, SHP, FGDB, GeoRSS, GeoJSON, KML, WMS	https://catalogue.data.gov.bc.ca	
Commercial Prawn Fishery	Ministry of Forests, Lands, Natural Resource Operations and Rural Development	CSV, SHP, FGDB, GeoRSS, GeoJSON, KML, WMS	https://catalogue.data.gov.bc.ca	
Commercial Crab Fishery	Ministry of Forests, Lands, Natural Resource Operations and Rural Development	CSV, SHP, FGDB, GeoRSS, GeoJSON, KML, WMS	https://catalogue.data.gov.bc.ca	
Commercial Herring Fishery	Ministry of Forests, Lands, Natural Resource Operations and Rural Development	CSV, SHP, FGDB, GeoRSS, GeoJSON, KML, WMS	https://catalogue.data.gov.bc.ca	
Commercial Red and Green Urchin Fishery	Ministry of Forests, Lands, Natural Resource Operations and Rural Development	CSV, SHP, FGDB, GeoRSS, GeoJSON, KML, WMS	https://catalogue.data.gov.bc.ca	
Commercial Groundfish Fishery	Ministry of Forests, Lands, Natural Resource Operations and Rural Development	CSV, SHP, FGDB, GeoRSS, GeoJSON, KML, WMS	https://catalogue.data.gov.bc.ca	
Commercial Salmon Trawl Fishery	Ministry of Forests, Lands, Natural Resource Operations and Rural Development	CSV, SHP, FGDB, GeoRSS, GeoJSON, KML, WMS	https://catalogue.data.gov.bc.ca	

Data	Source	Source Format	
Commercial Salmon Net Fishery	Ministry of Forests, Lands, Natural Resource Operations and Rural Development	CSV, SHP, FGDB, GeoRSS, GeoJSON, KML, WMS	https://catalogue.data.gov.bc.ca
Islands Trust BC (Islands in Strait of Georgia data) - general	Islands Trust BC	ESRI REST service	http://maps.islandstrust.bc.ca
Islands Trust BC (Islands in Strait of Georgia data) - shorelines	Islands Trust BC	ESRI REST service	http://maps.islandstrust.bc.ca

Table 2 - Data from the Government of British Colombia

# Data from the Government of Québec and other Québec organizations

Data	Source	Format	Link
Organismes de recherche et de sauvetage	Ministère de la Sécurité Publique du Québec	SHP, WMS	https://www.donneesqubec.ca
Couvertures d'images satellites des côtes du Saint-Laurent – janvier 2009 à mars 2013	Ministère de la Sécurité publique, Gouvernement du Québec	SHP, WMS	https://www.donneesquebec.ca
Répertoire des sites maricoles du Québec	Ministère de l'Agriculture, des Pêcheries et de l'Alimentation du Québec	XLSX	http://catalogue.ogsl.ca
Délimitation des zones industrialo- portuaires	Ministère de l'Économie, de la Science et de l'Innovation, Gouvernement du Québec	GeoJSON, SHP	https://www.donneesquebec.ca
Nunavik Boundaries	NIIRLIT Web Map	ESRI REST service	http://arcgis.creegeoportal.ca
Répertoire des accès au Saint-Laurent (rampes, quais, plages, rives, parcs riverains, marinas, hydrobases, belvédères)	Plan d'action Saint-Laurent	XLSX	http://catalogue.ogsl.ca
Compilation des incidents impliquant des mammifères marins en difficultés signalés au Réseau québécois d'urgences pour les mammifères marins	Réseau québécois d'urgences pour les mammifères marins (RQUMM)	XLSX	http://catalogue.ogsl.ca
Service Web de Sécurité publique Québec (innondations, bassins et sécurité dans la zone côtière)	Securité publique Québec	WFS	https://geoegl.msp.gouv.qc.ca
Port - Installation du Québec	Transports Québec	CSV, GeoJSON, SHP, WMS	https://www.donneesqubec.ca
Service Web de Transports Québec (réseau routier dans la zone côtière)	Transports Québec	WMS	https://ws.mapserver.transports.g ouv.qc.ca

Table 3 - Data from the Government of Québec and other Québec organizations

# Data from Northwest Territories

Data	Source	Format	Link
Biologic and Ecologic Service (includes important wildlife areas, species at risk and ecological areas)	Northwest Territories Centre for Geomatics	Esri REST Service, WMS	http://www.geomatics.gov.nt.ca
Environment layer (includes conservation areas)	Northwest Territories Centre for Geomatics	Esri REST Service, WMS	http://www.geomatics.gov.nt.ca

Table 4 - Data from Northwest Territories

## Data from New Brunswick

Data	Source	Format	Link
			http://www.snb.ca/geonb1/e/DC/cat
Submerged Lands Management Areas	Service New Brunswick	SHP, DXF, CARIS	alogue-E.asp
			http://www.snb.ca/geonb1/e/DC/cat
Wetlands (New Brunswick)	Service New Brunswick	FGDB, SHP, DXF, LPK	alogue-E.asp

Table 5 - Data from New Brunswick

# Data from Newfoundland and Labrador

) )			
Data	Source Format		Link
	Department of Natural Resources,		
	Government of Newfoundland and		
Newfoundland Coastal Character dataset	Labrador	WMS	http://dnrmaps.gov.nl.ca
	Newfoundland and Labrador Statistics		
Ferry Terminals	Agency	KMZ	http://opendata.gov.nl.ca

Table 6 - Data from Newfoundland and Labrador

# **Data from Nova Scotia**

Data	Source	Format	Link
Wet Areas Mapping (Predicted Flow and	Department of Natural Resources,		
Wetness Index, Nova Scotia)	Government of Nova Scotia	ESRI REST service	https://nsgiwa.novascotia.ca
	Department of Natural Resources,		
Ecological Land Classification (Nova Scotia)	Government of Nova Scotia	ESRI REST service	https://nsgiwa.novascotia.ca
	Nova Scotia Minister of Service Nova		
Aquaculture Sites	Scotia and Municipal Relations	SHP	https://nsgi.novascotia.ca/gdd/

Table 7 - Data from Nova Scotia

# Appendix 3 to Annex A Priority Queue List

		Category(ies) of		Level of		Project Authority
Feature Name	Feature Description	work	Dependencies	effort	Est. Cost	Approval
Feature 1						
Feature 2						
Feature 3						

# ANNEX B BASIS OF PAYMENT

#### 1. LABOUR

#### 1.1 Initial Period

For the Work described in Part 1 of the Annex A, Statement of Work the Contractor will be paid the following firm, all-inclusive hourly rates (excluding Travel and Living and Applicable Taxes):

	INITIAL PERIOD (2 months)				
Applicable Category of Work (V)	Category of Work	B - Firm, all-inclusive hourly rate			
	Geomatics Analyst	\$			
	Geomatics Specialist	\$			
	GIS Applications Analyst	\$			
	GIS Application Architect	\$			
	GIS Data Architect	\$			
	GIS Infrastructure Architect	\$			
	GIS Programmer / Analyst	\$			
	GIS Project Manager	\$			
	GIS System Architect	\$			
	Web Mapping Developer	\$			
	Mapping Technician	\$			
	Business Analyst	\$			
	Data Conversion Specialist	\$			
	Database Administrator	\$			
	Database Analyst / IM Administrator	\$			
	IM Architect	\$			
	Platform Analyst	\$			
	Storage Architect	\$			
	System Administrator	\$			
	Technical Architect	\$			
	[ add additional categories as applicable ]	\$			

Total Estimated Cost to a Ceiling Price: \$\_\_\_\_\_

# 1.2 Option Period 1

For the Work described in Part 2 of the Annex A, Statement of Work the Contractor will be paid the following firm, all-inclusive hourly rates (excluding Travel and Living):

	OPTION PERIOD 1 (14 months)			
Applicable Category	Firm, all-inclusive			
of Work (v)	Category of Work	hourly rate		

Geomatics Specialist GIS Applications Analyst GIS Application Architect GIS Data Architect GIS Infrastructure Architect GIS Programmer / Analyst	\$ \$ \$ \$ \$ \$ \$ \$
GIS Applications Analyst GIS Application Architect GIS Data Architect GIS Infrastructure Architect GIS Programmer / Analyst	\$ \$ \$ \$ \$
GIS Application Architect GIS Data Architect GIS Infrastructure Architect GIS Programmer / Analyst	\$ \$ \$ \$ \$
GIS Data Architect GIS Infrastructure Architect GIS Programmer / Analyst	\$ \$ \$ \$
GIS Infrastructure Architect GIS Programmer / Analyst	\$ \$ \$
GIS Programmer / Analyst	\$ \$
	\$
GIS Project Manager	
·	\$
	\$
	\$
	\$
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•	\$
	\$
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	\$
	\$
	\$
	\$
	\$
	\$
	\$
	\$
	\$
	\$
	\$
	\$
	\$
	\$
, ,	\$
	\$
Platform Analyst	\$
Storage Architect	\$
System Administrator	\$
Technical Architect	\$
	\$

Total Estimated Cost to a Limitation of Expenditure: \$UNFUNDED

# 1.3 Option Periods 2 – 5 and Transition Period

For the work described at articles 6.1.2, Optional Goods and/or Services, 6.4.1, Option to Extend the Contract and 6.4.2 Transition Period of the contract the Contractor will be paid the following firm, all-inclusive hourly rates (excluding Travel and Living):

		Firm, al	l-inclusive H	ourly Rate	
Category of Work	Option	Option	Option	Option	Transition
	Period 2	Period 3	Period 4	Period 5	Period
Geomatics Analyst	\$	\$	\$	\$	\$
Geomatics Specialist	\$	\$	\$	\$	\$
GIS Applications Analyst	\$	\$	\$	\$	\$
GIS Application Architect	\$	\$	\$	\$	\$
GIS Data Architect	\$	\$	\$	\$	\$
GIS Infrastructure Architect	\$	\$	\$	\$	\$
GIS Programmer / Analyst	\$	\$	\$	\$	\$
GIS Project Manager	\$	\$	\$	\$	\$
GIS System Architect	\$	\$	\$	\$	\$
Web Mapping Developer	\$	\$	\$	\$	\$
Mapping Technician	\$	\$	\$	\$	\$
Application / Software Architect	\$	\$	\$	\$	\$
ERP System Analyst	\$	\$	\$	\$	\$
ERP Technical Analyst	\$	\$	\$	\$	\$
Programmer / Software Developer	\$	\$	\$	\$	\$
System Analyst	\$	\$	\$	\$	\$
Test Coordinator	\$	\$	\$	\$	\$
Tester	\$	\$	\$	\$	\$
WEB Architect	\$	\$	\$	\$	\$
Business Analyst	\$	\$	\$	\$	\$
Help Desk Specialist	\$	\$	\$	\$	\$
Technical Writer	\$	\$	\$	\$	\$
Network Security Analyst	\$	\$	\$	\$	\$
Project Executive	\$	\$	\$	\$	\$
Project Administrator	\$	\$	\$	\$	\$
Project Coordinator	\$	\$	\$	\$	\$
Project Leader	\$	\$	\$	\$	\$
Project Scheduler	\$	\$	\$	\$	\$
Quality Assurance Specialist/Analyst	\$	\$	\$	\$	\$
Data Conversion Specialist	\$	\$	\$	\$	\$
Database Administrator	\$	\$	\$	\$	\$
Database Analyst / IM Administrator	\$	\$	\$	\$	\$
IM Architect	\$	\$	\$	\$	\$
Network Analyst	\$	\$	\$	\$	\$
Platform Analyst	\$		\$	\$	\$
Storage Architect	\$	\$	\$	\$	\$
System Administrator	\$	\$ \$ \$	\$	\$	\$
Technical Architect	\$	\$	\$	\$	\$
[ add additional categories as	\$	\$	\$	\$	\$
applicable ]					

Total Estimated Cost to a Limitation of Expenditure: UNFUNDED

#### 2. DIRECT COSTS

## 2.1 Option Period 1 – Training

The Contractor will be paid the following firm, all-inclusive rate excluding travel and living and applicable taxes, to provide training in accordance with articles 6.6 and 6.9 of Annex A, Statement of Work, as appropriate:

Select appropriate option (V)	Description	Unit of Measure	Quantity	Firm, all- inclusive rate	Extended Cost
	Online training – on GIS Solution OR	Per User	190		\$
	Classroom training – on GIS solution	Per User	190		\$
	Online training – on modifications and enhancements (4 x per year)	Per User	760		\$

Total Estimated Cost to a Limitation of Expenditure: UNFUNDED

## 2.2 Option Periods 2 through 5 – Training

The Contractor will be paid the following firm, all-inclusive rate excluding travel and living and applicable taxes, to provide training in accordance with articles 6.6 and 6.9 of Annex A, Statement of Work, as appropriate:

			Firm, all-inclusive rate			
Select appropriate option (V)	Description	Unit of Measure	Option Period 2	Option Period 3	Option Period 4	Option Period 5
	Online training – on GIS Solution OR	Per User	\$	\$	\$	\$
	Classroom training – on GIS solution	Per User	\$	\$	\$	\$
	Online training – on modifications and enhancements (4 x per year)	Per User	\$	\$	\$	\$

Total Estimated Cost to a Limitation of Expenditure: UNFUNDED

#### 2.3 Option Period 1 – Licensed Software Subscription Services:

For the Licensed Software Subscription Services (including the Software Documentation and Support), all as detailed in the Contract, Canada will pay the Contractor, in advance, the firm all-inclusive unit price(s), set out below, applicable taxes extra upon acceptance of Licensed Software Subscription Services by the Technical Authority and in accordance with the Method of Payment.

OPTION PERIOD 1					
Description	Unit of Measure	Firm, all- inclusive Unit Price	Quantity	Extended	
Licensed Software and Subscription Services for online and offline access including maintenance	Per User	\$	190	\$	
Total License/Subscription Bid Price:					

## 2.4 Option Periods 2 through 5 – Optional Additional Licensed Software Subscription:

For the option to increase the number of Licensed Software Subscription that will be serviced under the Licensed Software Subscription Services, if Canada exercises its option, Canada will pay the Contractor the firm all-inclusive unit price(s) set out below, applicable taxes extra. If the number of Licensed Software Subscription are increased during the Contract Period or during any of the Option Periods, Canada will pay the applicable price for the number of Contacts divided by 365, then multiplied by the number of days remaining in that specific period.

		Firm, all-inclusive rates			
	Unit of	Option Option Option			Option
Description	Measure	Period 2	Period 3	Period 4	Period 5
Licensed Software and Subscription	Per User	\$	\$	\$	\$
Services for online and offline access					
including maintenance					

**Total Estimated Cost to a Limitation of Expenditure: UNFUNDED** 

#### 2.5 Subcontractor(s)

The Contractor will be paid the following at the actual cost without provision for markup:

			Firm, all-inclusive Unit Price			
Description	Option	Option	Option Option Option Transition			
	Period 1	Period 2	Period 3	Period 4	Period 5	Period
Subcontractor(s) (define)		\$	\$	\$	\$	\$
		\$	\$	\$	\$	\$

Total Estimated Cost to a Limitation of Expenditure: \$\_\_\_\_\_

#### 3. TRAVEL AND LIVING

The Contractor will be reimbursed its authorized travel and living expenses reasonably and properly incurred in the performance of the Work, at cost, without any allowance for profit and/or administrative overhead, in accordance with the meal, and private vehicle allowances specified in Appendices B, C and D of the National Joint Council Travel Directive, and with the other provisions of the directive referring to "travellers", rather than those referring to "employees". Canada will not pay the Contractor any incidental expense allowance for authorized travel.

All travel must have the prior authorization of the Contracting Authority.

All payments are subject to government audit.

	Estimated Cost to a Limitation of	Expenditure: \$
4.	TOTAL COST TO A LIMITATION OF EXPENDITURE: \$	Applicable Taxes Extra

With the exception of the firm unit rate(s) and firm price(s), the amounts shown in the various items specified above are estimates only. Minor changes to these estimates will be accepted for billing purposes as the Work proceeds, provided that these changes have the prior approval of the Technical Authority, and provided that the estimated cost does not exceed the total cost to a Limitation of Expenditure.

# ANNEX C ELECTRONIC PAYMENT INSTRUMENTS

The Bidder accepts to be paid by any of the following Electronic Payment Instrument	t(s):
( ) VISA Acquisition Card;	
( ) MasterCard Acquisition Card;	
( ) Direct Deposit (Domestic and International);	
( ) Electronic Data Interchange (EDI);	
( ) Wire Transfer (International Only);	
( ) Large Value Transfer System (LVTS) (Over \$25M)	

# ATTACHMENT 1 TO PART 3 FINANCIAL BID PRESENTATION SHEET

#### 1. LABOUR

- **1.1 Initial Period -** For evaluation purposes only, the Bidder must,
  - a) determine the appropriate category of work to complete the work described at Part 1 of Annex A, Statement of Work; additional categories may be added, as applicable.
     Bidders must define the role of any new category of work. Failure to define the role of any new category of work will result in the category not being accepted by Canada;
  - b) submit a firm, all-inclusive hourly rate, excluding travel and living expenses and applicable taxes, for each category of work that will perform the services described at Part 1 of Annex A, Statement of Work;
  - c) multiply the estimated level of effort in hours by the firm, all-inclusive hourly rate to determine the extended bid price for each category of work for the Initial Period of the contract.
  - d) sum the extended cost to determine the Total Bid Price for the Initial Period.

Applicable		A - Estimated Level	B - Firm, all-	Extended Cost	
Category of	Category of Work	of Effort (Hours)	inclusive hourly		
Work (√)			rate	(A x B)	
	Geomatics Analyst		\$	\$	
	Geomatics Specialist		\$	\$	
	GIS Applications Analyst		\$	\$	
	GIS Application Architect		\$	\$	
	GIS Data Architect		\$	\$	
	GIS Infrastructure Architect		\$	\$	
	GIS Programmer / Analyst		\$	\$	
	GIS Project Manager		\$	\$	
	GIS System Architect		\$	\$	
	Web Mapping Developer		\$	\$	
	Mapping Technician		\$	\$	
	Business Analyst		\$	\$	
	Data Conversion Specialist		\$	\$	
	Database Administrator		\$	\$	
	Database Analyst / IM Administrator		\$	\$	
	IM Architect		\$	\$	
	Platform Analyst		\$	\$	
	Storage Architect		\$	\$	
	System Administrator		\$	\$	
	Technical Architect		\$	\$	
	[ add additional categories as		\$	\$	
	applicable]				
		Total Bid Price L	abour, Initial Period:	\$	

#### **1.2 Option Period 1 -** For evaluation purposes, the Bidder must

- a) determine the appropriate category of work to complete the work described at Part 2 of Annex A, Statement of Work; additional categories may be added, as applicable.
   Bidders must define the role of any new category of work. Failure to define the role of any new category of work will result in the category not being accepted by Canada;
- b) submit the same firm, all-inclusive hourly rates as indicated in item 1 for the Initial Period for those categories of work duplicated in Part 2;
- submit a firm, all-inclusive hourly rate, travel and living and applicable taxes excluded for each selected category of work for the work to be conducted under Part 2 of Annex A, Statement of Work;
- d) total the firm, all-inclusive hourly rates and divide by the total number of categories of work to determine an Average Rate.
- e) multiply the Average Rate by a factor of 1920 to determine the Total Bid Price for Option Period 1.

	PART 2 of the Statement of Work - Option Period 1					
Applicable Category of Work (V)	Category of Work	Firm, all-inclusive hourly rate				
	Geomatics Analyst	\$				
	Geomatics Specialist	\$				
	GIS Applications Analyst	\$				
	GIS Application Architect	\$				
	GIS Data Architect	\$				
	GIS Infrastructure Architect	\$				
	GIS Programmer / Analyst	\$				
	GIS Project Manager	\$				
	GIS System Architect	\$				
	Web Mapping Developer	\$				
	Mapping Technician	\$				
	Application / Software Architect	\$				
	ERP System Analyst	\$				
	ERP Technical Analyst	\$				
	Programmer / Software Developer	\$				
	System Analyst	\$				
	Test Coordinator	\$				
	Tester	\$				
	WEB Architect	\$				
	Business Analyst	\$				
	Help Desk Specialist	\$				
	Technical Writer	\$				
	Network Security Analyst	\$				
	Project Executive	\$				
	Project Administrator	\$				
	Project Coordinator	\$				
	Project Leader	\$				
	Project Scheduler	\$				

Quality Assurance Specialist/Analyst	\$
Data Conversion Specialist	\$
Database Administrator	\$
Database Analyst / IM Administrator	\$
IM Architect	\$
Network Analyst	\$
Platform Analyst	\$
Storage Architect	\$
System Administrator	\$
Technical Architect	\$
[ add additional categories as	\$
applicable ]	
Total	\$
Average Rate	\$
Total Bid Price Labour, Option Period 1	\$

#### 2. DIRECT COSTS -

## 2.1 Option Period 1 – Training

For evaluation purposes, the Bidder must define the firm, all-inclusive unit price excluding travel and living and applicable taxes, to provide training in accordance with articles 6.6 and 6.9 of Annex A, Statement of Work, as appropriate:

Description	Unit of Measure	Firm, all- inclusive unit price	Quantity	Extended Cost
Online training – on GIS Solution OR	Per User		190	\$
Classroom training – on GIS solution	Per User		190	\$
Online training – on modifications and enhancements (4 x per year)	Per User		760	\$
Total Bid Price, Training, Option Period 1				\$

## 2.2 Option Period 1 – Licensed Software and Subscription Services

For evaluation purposes, the Bidder must define the firm, all-inclusive unit price for Option Period 1, described in Part 2 of Annex A, Statement of Work:

OPTIO	ON PERIOD 1			
Description	Unit of Measure	Firm, all- inclusive Unit Price	Quantity	Extended
Licensed Software and Subscription Services for online and offline access including maintenance	Per User	\$	190	\$

Total License/Subscription Bid Price	: \$
--------------------------------------	------

## 2.3 Option Period 1 – Subcontractor(s)

For evaluation purposes, the Bidder must define the following:

- a) each subcontractor who will perform work under the contract;
- b) the firm, all-inclusive price for each subcontractor.

For evaluation purposes only, the Total Financial Bid is the sum of the following:

1.1	Total Bid Price Labour, Initial Period:	\$
1.2	Total Bid Price Labour, Option Period 1:	\$
2.1	Total Bid Price, Training	\$
2.2	Total License/Subscription Bid Price:	\$
2.3	Total Bid Price, Subcontractors:	\$
	Total Financial Bid	\$

## 3. OPTIONAL GOODS OR SERVICES / PERIODS

#### 3.1 LABOUR

For the work described at articles 6.1.2, Optional Goods and/or Services, 6.4.1, Option to Extend the Contract and 6.4.2 Transition Period of the contract the Bidder must define the following firm, all-inclusive hourly rates (excluding Travel and Living and applicable taxes):

		Firm, all-inclusive hourly rate				
Applicable Category of Work (V)	Category of Work	Option Period 2	Option Period 3	Option Period 4	Option Period 5	Transition Period
	Geomatics Analyst	\$	\$	\$	\$	\$
	Geomatics Specialist	\$	\$	\$	\$	\$
	GIS Applications Analyst	\$	\$	\$	\$	\$
	GIS Application Architect	\$	\$	\$	\$	\$
	GIS Data Architect	\$	\$	\$	\$	\$
	GIS Infrastructure Architect	\$	\$	\$	\$	\$
	GIS Programmer / Analyst	\$	\$	\$	\$	\$
	GIS Project Manager	\$	\$	\$	\$	\$
	GIS System Architect	\$	\$	\$	\$	\$
	Web Mapping Developer	\$	\$	\$	\$	\$
	Mapping Technician	\$	\$	\$	\$	\$
	Application / Software Architect	\$	\$	\$	\$	\$
	ERP System Analyst	\$	\$	\$	\$	\$
	ERP Technical Analyst	\$	\$	\$	\$	\$
	Programmer / Software Developer	\$	\$	\$	\$	\$
	System Analyst	\$	\$	\$	\$	\$

Test Coordinator	\$ \$	\$ \$	\$
Tester	\$ \$	\$ \$	\$
WEB Architect	\$ \$	\$ \$	\$
Business Analyst	\$ \$	\$ \$	\$
Help Desk Specialist	\$ \$	\$ \$	\$
Technical Writer	\$ \$	\$ \$	\$
Network Security Analyst	\$ \$	\$ \$	\$
Project Executive	\$ \$	\$ \$	\$
Project Administrator	\$ \$	\$ \$	\$
Project Coordinator	\$ \$	\$ \$	\$
Project Leader	\$ \$	\$ \$	\$
Project Scheduler	\$ \$	\$ \$	\$
Quality Assurance Specialist/Analyst	\$ \$	\$ \$	\$
Data Conversion Specialist	\$ \$	\$ \$	\$
Database Administrator	\$ \$	\$ \$	\$
Database Analyst / IM Administrator	\$ \$	\$ \$	\$
IM Architect	\$ \$	\$ \$	\$
Network Analyst	\$ \$	\$ \$	\$
Platform Analyst	\$ \$	\$ \$	\$
Storage Architect	\$ \$	\$ \$	\$
System Administrator	\$ \$	\$ \$	\$
Technical Architect	\$ \$	\$ \$	\$

#### 3.2 DIRECT COSTS

3.2.1 For the work described at articles 6.1.2, Optional Goods and/or Services, 6.4.1, Option to Extend the Contract and 6.4.2 Transition Period of the contract the Bidder must define the firm, all-inclusive unit price excluding travel and living and applicable taxes, to provide training in accordance with articles 6.6 and 6.9 of Annex A, Statement of Work, as appropriate:

			Firm, all-	inclusive Pe	er User Rate	
Select appropriate option (V)	Description	Option Period 2	Option Period 3	Option Period 4	Option Period 5	Transition Period
	Classroom training – on GIS Solution OR	\$	\$	\$	\$	\$
	Online training – on GIS solution	\$	\$	\$	\$	\$
	Online training – on modifications and enhancements (4 x per year)	\$	\$	\$	\$	\$

3.2.2 For the work described at articles 6.1.2, Optional Goods and/or Services, 6.4.1, Option to Extend the Contract and 6.4.2 Transition Period of the contract the Bidder must define the firm, allinclusive unit price for the , described in Part 2 of Annex A, Statement of Work:

		Firm, All-	inclusive Pe	r User Rate	
	Option	Option	Option	Option	Transition
Description	Period 2	Period 3	Period 4	Period 5	Period
Licensed Software and Subscription	\$	\$	\$	\$	\$
Services					

# 3.2.3 Subcontractor(s)

The Bidder must define the following:

- a) each subcontractor who will perform work under the contract;
- b) the firm, all-inclusive price for each subcontractor.

		Firm,	All-inclusiv	e Price	
Description	Option Period 2	Option Period 3	Option Period 4	Option Period 5	Transition Period
Subcontractor(s)	\$	\$	\$	\$	\$
	\$	\$	\$	\$	\$

# ATTACHMENT 1 to PART 5 OF THE BID SOLICITATION FEDERAL CONTRACTORS PROGRAM FOR EMPLOYMENT EQUITY – CERTIFICATION

I, the Bidder, by submitting the present information to the Contracting Authority, certify that the information provided is true as of the date indicated below. The certifications provided to Canada are subject to verification at all times. I understand that Canada will declare a bid non-responsive, or will declare a contractor in default, if a certification is found to be untrue, whether during the bid evaluation period or during the contract period. Canada will have the right to ask for additional information to verify the Bidder's certifications. Failure to comply with any request or requirement imposed by Canada may render the bid non-responsive or constitute a default under the Contract.

	er information on the Federal Contractors Program for Employment Equity visit Employment and evelopment Canada (ESDC) – Labour's website.
Date: date.)	(YYYY/MM/DD) (If left blank, the date will be deemed to be the bid solicitation closing
Complete	e both A and B.
A. Check	only one of the following:
( ) A1.	The Bidder certifies having no work force in Canada.
( ) A2.	The Bidder certifies being a public sector employer.
( ) A3.	The Bidder certifies being a <u>federally regulated employer</u> being subject to the <u>Employment Equity Act</u> .
( ) A4.	The Bidder certifies having a combined work force in Canada of less than 100 permanent full-time and/or permanent part-time employees.
A5. The	Bidder has a combined workforce in Canada of 100 or more employees; and
` ,	A5.1. The Bidder certifies already having a valid and current <u>Agreement to Implement Employment Equity</u> (AIEE) in place with ESDC-Labour.
OR ( )	A5.2. The Bidder certifies having submitted the <u>Agreement to Implement Employment Equity (LAB1168)</u> to ESDC-Labour. As this is a condition to contract award, proceed to completing the form Agreement to Implement Employment Equity (LAB1168), duly signing it, and transmit it to ESDC-Labour.
B. Check	only one of the following:
( ) B1.	The Bidder is not a Joint Venture.
OR	
( ) B2.	The Bidder is a Joint venture and each member of the Joint Venture must provide the Contracting Authority with a completed annex Federal Contractors Program for Employment Equity - Certification. (Refer to the Joint Venture section of the Standard Instructions)