Public Works and Government Services Canada

Travaux publics et Services gouvernementaux Canada

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
Gatineau
Québec
K1A 0S5
Bid Fax: (819) 997-9776

SOLICITATION AMENDMENT
MODIFICATION DE L'INVITATION

The referenced document is hereby revised; unless otherwise indicated, all other terms and conditions of the Solicitation remain the same.

Ce document est par la présente révisé; sauf indication contraire, les modalités de l'invitation demeurent les mêmes.

Title - Sujet	
IT ProServices	

Solicitation No. - N° de l'invitation	**Amendment No. - N° modif.**
08915-180150/A	004

Client Reference No. - N° de référence du client	**Date**
20180150	2019-02-12

GETS Reference No. - N° de référence de SEAG
PW-$$EL-609-34531

File No. - N° de dossier	**CCC No./N° CCC - FMS No./N° VME**
609el.08915-180150	

Solicitation Closes - L'invitation prend fin		**Time Zone** **Fuseau horaire**
at - à **02:00 PM**		Eastern Standard Time EST
on - le **2019-02-27**		

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

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

Address Enquiries to: - Adresser toutes questions à:	**Buyer Id - Id de l'acheteur**
Bastien, Josée	609el

Telephone No. - N° de téléphone	**FAX No. - N° de FAX**
(613) 858-9843 ( )	( ) -

Destination - of Goods, Services, and Construction:
Destination - des biens, services et construction:

Comments - Commentaires

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

Instructions: See Herein

Instructions: Voir aux présentes

Delivery Required - Livraison exigée	**Delivery Offered - Livraison proposée**

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

Issuing Office - Bureau de distribution

Informatics Professional Services - EL Division/Services professionnels en informatique - division EL
Terrasses de la Chaudière 4th Floo
10 Wellington Street
Gatineau
Québec
K1A 0S5

Telephone No. - N° de téléphone
Facsimile No. - N° de télécopieur

Name and title of person authorized to sign on behalf of Vendor/Firm
(type or print)
Nom et titre de la personne autorisée à signer au nom du fournisseur/
de l'entrepreneur (taper ou écrire en caractères d'imprimerie)

Signature   **Date**

Canada

This Amendment number 004 is issued to respond to the following Vendor's questions and apply changes to the RFP:

Question 1

Ref Amendment 003, Revised Bid Evaluation Criteria, <u>1.1 Application Architect, L3, M3, M4, M5</u> – Further to Questions 2 and 3, the criteria for having experience *'… in an International real property environment'* AND … *'experience in 'Localization including currency exchange in a .NET environment in an international real property setting'* has been removed from the Corporate Criteria and, instead, added to the Application Architect Criteria at M3, M4, and M5. These criteria are highly restrictive, not competitive and unnecessary for the effectiveness and capability of this category. It is next to impossible to qualify candidates for this role unless they are competitors with current incumbents or have previously worked at GAC on a related project. Given this, we respectfully request the GOC remove these restrictive criteria in their entirety or, at the very least, include in the rated criteria section with a limited point weighting, i.e., 1 or 2 points.

Response 1:

The criteria remains unchanged.

Question 2:

Ref Amendment 003, Revised Bid Evaluation Criteria, <u>1.4 Technical Writer, L3, M1</u> – This criterion requires a *'… degree or diploma in Computer Sciences … '.* This requirement is unrealistic for a Technical Writer and is clearly only applicable to other resource categories (i.e., Programmer, Architect, Developers, etc.). The majority of Technical Writers have degrees or diplomas relevant to their field of expertise such as Communications, English, Technical Writing, Journalism, etc. This educational requirement is highly restrictive and favours incumbent resources and/or competitors having worked previously on related projects with GAC. We ask that the GOC either remove the educational criteria in its entirety or replace it with something which is related to the Technical Writer category.

Response 2:

See changes below.

Question 3

Ref Amendment 003, Revised Bid Evaluation Criteria, <u>1.4 Technical Writer, L3, R2 and R3</u> – The <u>R2</u> criteria requires '*… experience with MS Word 2007 or above, MS PowerPoint 7 or above, MS Excel 2007 or above …'* that are entirely applicable to this resource category. However, the requirement for '*… experience with MS Project 2007 or above'* is unrelated to this skill set and is more applicable to Project Management, Project Scheduler or Project Coordinator resource categories. In light of this, we request the GOC remove this requirement for MS Project experience. The <u>R3</u> criteria requires *'… experience in the writing of USE case documents for applications …'.* Again, this experience is not relevant to this skill set and is more appropriate for Business Analysts, Business Consultants, etc. Both R2 and R3 favours incumbent resources and/or competitors having worked previously on related projects with GAC. Please remove this requirement in it's entirety or replace with a related skill such as writing manuals, on-line help, quick reference guides, to name a few.

Response 3:

See changes below.

_____

The following changes apply to the RFP:

1.   At ATTACHMENT 2 BID EVALUATION CRITERIA,

Delete:

To facilitate bid preparation and evaluation, Bidders should prepare and submit their proposal using the tables provided in this Attachment. When completing the resource grids, the specific information which demonstrates the requested criteria and reference to the page number of the resume should be incorporated so that the evaluator can verify this information. It is not acceptable that the tables should contain all the project information from the résumé. Only the specific answer should be provided.

No.	Mandatory Criteria		Compliant Yes/No
CM.1	Corporate		
M1	Application/Software Architect – Level 3		
M2	Application/Software Architect – Level 3		
M3	Application/Software Architect – Level 3		
M4	Application/Software Architect – Level 3		
M5	Application/Software Architect – Level 3		
M1	Programmer/Analyst – Level 3		
M2	Programmer/Analyst – Level 3		
M3	Programmer/Analyst – Level 3		
M1	Database Analyst – Level 3		
M2	Database Analyst – Level 3		
M1	Technical Writer – Level 2		
M2	Technical Writer – Level 2		
No.	Point-Rated Criteria	Maximum Technical Points	Bidder Technical Score
R1	Corporate	40	
R2	Corporate	40	
R3	Corporate	30	
R4	Corporate	30	
R5	Corporate	40	
	Total Corporate	180	
R1	Application/Software Architect – Level 3	5	
R2	Application/Software Architect – Level 3	5	
R3	Application/Software Architect – Level 3	5	
R4	Application/Software Architect – Level 3	40	
R5	Application/Software Architect – Level 3	40	
R6	Application/Software Architect – Level 3	5	

Solicitation Number:
08915-180150/A

Amendment Number:
004

Buyer ID:
609EL

R7	Application/Software Architect – Level 3	15	
R8	Application/Software Architect – Level 3	35	
R9	Application/Software Architect – Level 3	10	
Total Application/Software Architect – Level 3		**160**	
R1	Programmer/Analyst – Level 3	5	
R2	Programmer/Analyst – Level 3	20	
R3	Programmer/Analyst – Level 3	10	
R4	Programmer/Analyst – Level 3	25	
R5	Programmer/Analyst – Level 3	20	
R6	Programmer/Analyst – Level 3	5	
R7	Programmer/Analyst – Level 3	15	
R8	Programmer/Analyst – Level 3	10	
Total Programmer/Analyst – Level 3		**110**	
R1	Database Analyst – Level 3	20	
R2	Database Analyst – Level 3	15	
R3	Database Analyst – Level 3	7	
R4	Database Analyst – Level 3	15	
R5	Database Analyst – Level 3	5	
R6	Database Analyst – Level 3	5	
Total Database Analyst – Level 3		**67**	
R1	Technical Writer – Level 2	20	
R2	Technical Writer – Level 2	20	
R3	Technical Writer – Level 2	5	
R4	Technical Writer – Level 2	5	
Total Technical Writer – Level 2		**50**	
Total Points		**567**	

Insert:

To facilitate bid preparation and evaluation, Bidders should prepare and submit their proposal using the tables provided in this Attachment. When completing the resource grids, the specific information which demonstrates the requested criteria and reference to the page number of the resume should be incorporated so that the evaluator can verify this information. It is not acceptable that the tables should contain all the project information from the résumé. Only the specific answer should be provided.

No.	Mandatory Criteria		Compliant Yes/No
CM.1	**Corporate**		
M1	Application/Software Architect – Level 3		
M2	Application/Software Architect – Level 3		
M3	Application/Software Architect – Level 3		
M4	Application/Software Architect – Level 3		
M5	Application/Software Architect – Level 3		

		Maximum Technical Points	Bidder Technical Score
M1	Programmer/Analyst – Level 3		
M2	Programmer/Analyst – Level 3		
M3	Programmer/Analyst – Level 3		
M1	Database Analyst – Level 3		
M2	Database Analyst – Level 3		
M1	Technical Writer – Level 2		

No.	Point-Rated Criteria	Maximum Technical Points	Bidder Technical Score
R1	Corporate	40	
R2	Corporate	40	
R3	Corporate	30	
R4	Corporate	30	
R5	Corporate	40	
	Total Corporate	180	
R1	Application/Software Architect – Level 3	5	
R2	Application/Software Architect – Level 3	5	
R3	Application/Software Architect – Level 3	5	
R4	Application/Software Architect – Level 3	40	
R5	Application/Software Architect – Level 3	40	
R6	Application/Software Architect – Level 3	5	
R7	Application/Software Architect – Level 3	15	
R8	Application/Software Architect – Level 3	35	
R9	Application/Software Architect – Level 3	10	
	Total Application/Software Architect – Level 3	160	
R1	Programmer/Analyst – Level 3	5	
R2	Programmer/Analyst – Level 3	20	
R3	Programmer/Analyst – Level 3	10	
R4	Programmer/Analyst – Level 3	25	
R5	Programmer/Analyst – Level 3	20	
R6	Programmer/Analyst – Level 3	5	
R7	Programmer/Analyst – Level 3	15	
R8	Programmer/Analyst – Level 3	10	
	Total Programmer/Analyst – Level 3	110	
R1	Database Analyst – Level 3	20	
R2	Database Analyst – Level 3	15	
R3	Database Analyst – Level 3	7	
R4	Database Analyst – Level 3	15	
R5	Database Analyst – Level 3	5	
R6	Database Analyst – Level 3	5	
	Total Database Analyst – Level 3	67	
R1	Technical Writer – Level 2	20	
R2	Technical Writer – Level 2	15	

R3	Technical Writer – Level 2	5	
R4	Technical Writer – Level 2	5	
	Total Technical Writer – Level 2	45	
	Total Points	562	

2. At **ATTACHMENT 2.1, 1. RESOURCES MANDATORY REQUIREMENTS**

Delete:

1.4 Technical Writer, Level 2

Experience and Expertise of the Proposed Technical Writer, Level 2

Name of proposed Resource: _____

The Bidder MUST demonstrate that the Proposed Technical Writer, Level 2 has:

Criteria	Mandatory Requirement	Bidder's Response	
		Demonstrated experience (Bidders to insert data)	**Insert page # of resume**
M.1	The Bidder must demonstrate that the proposed resource has a post-secondary degree or diploma in Computer Sciences from a recognized Canadian academic institution or an international academic institution recognized by the Canadian Information Centre for International Credentials. Copy of a valid degree or diploma should be included with the bid.		
M.2	The Bidder must demonstrate, using project descriptions, that the proposed resource has a minimum of five years of experience within the last seven years, as of bid closing as a technical writer in an IM/IT field supporting an application development and maintenance shop.		

Insert:

1.4 Technical Writer, Level 2

Experience and Expertise of the Proposed Technical Writer, Level 2				
Name of proposed Resource: _____				
The Bidder MUST demonstrate that the Proposed Technical Writer, Level 2 has:				
Criteria	**Mandatory Requirement**	**Bidder's Response**	
		Demonstrated experience (Bidders to insert data)	**Insert page # of resume**
M.1	The Bidder must demonstrate, using project descriptions, that the proposed resource has a minimum of five years of experience within the last seven years, as of bid closing as a technical writer in an IM/IT field supporting an application development and maintenance shop.		

3.   At ATTACHMENT 2.2, 1.2. RESOURCE POINT RATED REQUIREMENTS

Delete:

1.2.4 TECHNICAL WRITER - LEVEL 2					
Item	**Point-Rated Requirement**	**Max Points**	**Evaluation Criteria**	**Demonstrated Experience**	**Insert Page # of Resume**
R1	The Bidder should demonstrate, using project descriptions, that the proposed resource has a minimum of five years' experience as a Technical writer working in an IM/IT field.	20	Two points per year up to a maximum of 10 points.		
R2	The Bidder should demonstrate, using project descriptions, that the proposed resource has experience with: ☒ MS Word 2007 or above ☒ MS PowerPoint 2007 or above ☒ MS Excel 2007 or above ☒ MS Project 2007 or above	20	One point per application per year to a maximum of 5 points each.		
R3	The Bidder should demonstrate, using project descriptions, that the	5	One point per year up to a maximum of		

			5points.		
R4	The Bidder should demonstrate, using project descriptions, that the proposed resource has experience in the writing of USE case documents for applications.	5	One point per application per year up to a maximum of 5 points.		
MAX. AVAILABLE POINTS		**50**			
MIN. POINTS REQUIRED		**30**			
BIDDER TECHNICAL SCORE					
Proposals that do not meet the minimum score of 30 points for the proposed resource will be found non-responsive.					

Insert:

1.2.4 TECHNICAL WRITER - LEVEL 2					
Item	**Point-Rated Requirement**	**Max Points**	**Evaluation Criteria**	**Demonstrated Experience**	**Insert Page # of Resume**
R1	The Bidder should demonstrate, using project descriptions, that the proposed resource has a minimum of five years' experience as a Technical writer working in an IM/IT field.	**20**	Two points per year up to a maximum of 10 points.		
R2	The Bidder should demonstrate, using project descriptions, that the proposed resource has experience with: ☒ MS Word 2007 or above ☒ MS PowerPoint 2007 or above ☒ MS Excel 2007 or above	**15**	One point per application per year to a maximum of 5 points each.		
R3	The Bidder should demonstrate, using project descriptions, that the proposed resource has experience with Software Development Life Cycle (SDLC).	**5**	One point per year up to a maximum of 5points.		
R4	The Bidder should demonstrate, using project descriptions, that the proposed resource has experience in the writing of USE case documents for applications.	**5**	One point per application per year up to a maximum of 5 points.		
MAX. AVAILABLE POINTS		**45**			
MIN. POINTS REQUIRED		**27**			
BIDDER TECHNICAL SCORE					

Proposals that do not meet the minimum score of 27 points for the proposed resource will be found non-responsive.

4. At **APPENDIX C TO ANNEX A - RESOURCES ASSESSMENT CRITERIA AND RESPONSE TABLE**, **1. RESOURCES MANDATORY REQUIREMENTS**

Delete:

1.6   Technical Writer, Level 2

Experience and Expertise of the Proposed Technical Writer, Level 2			
Name of proposed Resource: _____			
The Contractor MUST demonstrate that the Proposed Technical Writer, Level 2 has:			
Criteria	**Mandatory Requirement**	**Contractor's Response**	
		Demonstrated experience (Contractors to insert data)	**Insert page # of resume**
M.1	The Contractor must demonstrate that the proposed resource has a post-secondary degree or diploma in Computer Sciences from a recognized Canadian academic institution or an international academic institution recognized by the Canadian Information Centre for International Credentials. Copy of a valid degree or diploma should be included with the bid.		
M.2	The Contractor must demonstrate, using project descriptions, that the proposed resource has a minimum of five years of experience within the last seven years, as a technical writer in an IM/IT field supporting an application development and maintenance shop.		

Delete:

1.6   Technical Writer, Level 2

Experience and Expertise of the Proposed Technical Writer, Level 2

Name of proposed Resource: _____

The Contractor MUST demonstrate that the Proposed Technical Writer, Level 2 has:

Criteria	Mandatory Requirement	Contractor's Response	
		Demonstrated experience (Contractors to insert data)	Insert page # of resume
M.1	The Contractor must demonstrate, using project descriptions, that the proposed resource has a minimum of five years of experience within the last seven years, as a technical writer in an IM/IT field supporting an application development and maintenance shop.		

5.   **2. RESOURCE POINT RATED REQUIREMENTS**

Delete:

6. TECHNICAL WRITER - LEVEL 2					
Item	**Point-Rated Requirement**	**Max Points**	**Evaluation Criteria**	**Demonstrated Experience**	**Insert Page # of Resume**
R.1	The Contractor should demonstrate, using project descriptions, that the proposed resource has a minimum of five years' experience as a Technical writer working in an IM/IT field	**20**	Two points per year up to a maximum of 10 points each.		
R.2	The Contractor should demonstrate, using project descriptions, that the proposed resource has experience with: ☒ MS Word 2007 or above ☒ MS PowerPoint 2007 or above ☒ MS Excel 2007 or above ☒ MS Project 2007 or above	**20**	One point per application per year to a maximum of 5 points each.		
R.3	The Contractor should demonstrate, using project descriptions, that the proposed resource has experience with Software Development Life Cycle (SDLC).	**5**	One point per year up to a maximum of 5points.		
R.4	The Contractor should demonstrate,	**5**	One point per		

Solicitation Number:
08915-180150/A

Amendment Number:
004

Buyer ID:
609EL

	using project descriptions, that the proposed resource has experience in the writing of USE case documents for applications.		application per year up to a maximum of 5 points.		
Maximum Score		**50**			
Contractor Technical Score					

Insert:

6. TECHNICAL WRITER - LEVEL 2					
Item	**Point-Rated Requirement**	**Max Points**	**Evaluation Criteria**	**Demonstrated Experience**	**Insert Page # of Resume**
R.1	The Contractor should demonstrate, using project descriptions, that the proposed resource has a minimum of five years' experience as a Technical writer working in an IM/IT field.	20	Two points per year up to a maximum of 10 points each.		
R.2	The Contractor should demonstrate, using project descriptions, that the proposed resource has experience with: ☒ MS Word 2007 or above ☒ MS PowerPoint 2007 or above ☒ MS Excel 2007 or above	15	One point per application per year to a maximum of 5 points each.		
R.3	The Contractor should demonstrate, using project descriptions, that the proposed resource has experience with Software Development Life Cycle (SDLC).	5	One point per year up to a maximum of 5points.		
R.4	The Contractor should demonstrate, using project descriptions, that the proposed resource has experience in the writing of USE case documents for applications.	5	One point per application per year up to a maximum of 5 points.		
Maximum Score		**45**			
Contractor Technical Score					

6. At **ANNEX A - STATEMENT OF WORK of the RFP, delete in its entirety.**

Insert:

ANNEX A - STATEMENT OF WORK

IT Development, Maintenance, Support, and Transition Liaison of Existing Systems

1.0 BACKGROUND

The IT Services Management & Delivery Services (AROI) operates and maintains its own domain within the Global Affairs Canada (GAC) Enterprise environment Secure Integrated Global Network (SIGNET).

The backbone of the domain is compliant with the SIGNET architecture and utilizes Windows 2012 Server. Production and Development workstations utilize Windows 7 Professional and may include the following SIGNET standard software:

- MS Outlook / Exchange,
- Microsoft Office 2010 (or above)

GAC is now moving towards Windows 10 operating system.

The role of the IT Services Management & Delivery (AROI) is to manage Real Property in an International environment and to provide effective strategic-level planning, coordination, direction and support for the Bureau of Physical Resources (ARD) and the Bureau of Project Delivery, Professional and Technical Services (AWD). AROI maintains an extensive portfolio of production systems and applications that must be supported and maintained while they transition and migrate over to both a new architecture using the latest technology as well as any Corporate Real Estate Enterprise system which adheres to the requirements of the Bureaus as determined by ARD/AWD. The Contractor will be responsible for the liaison with respect to the migration of the existing application architecture to the latest systems as prescribed by SIGNET and SSC.

AROI manages three distinct environments within its domain: production, quality assurance and development. Strict processes and policies have been developed to govern the installation of software packages and end user applications on each platform.

AROI develops and maintains both web-based and windows-based data driven applications. Additionally, AROI develops and manages various web sites which are designed and built to be compliant with the Government of Canada (GoC) Common Look and Feel (CLF) Standard. Those standards relate specifically to Accessibility, E-mail, Navigation, Format and Official Languages.

AROI uses an extensive array of technologies and languages to support its development activities. Those various individual components are critical to the success of AROI's portfolio of applications. AROI will also be the liaison between any migration from the existing Real Property Systems to any new Real Estate Enterprise system or systems.

The fundamental environment for all application development is based on Microsoft's Visual Studio platform. Primarily served by the .NET framework, database applications are architected and designed to utilize full object-oriented methodologies. To this end, AROI has adopted the Component Scalable Logical Architecture (CSLA) framework as its design paradigm. CSLA (in various versions) is utilized as a cornerstone component of all applications and has been for the past ten (10) years

ARD's portfolio of applications has been developed over several iterations of the Microsoft Development environment. This requires backward compatibility development and support using pre-.NET tools and software. Integration and object reuse with Departmental systems remains one of the fundamental design goals within AROI.

2.0 OBJECTIVE

The Physical Resources Bureau (ARD) of the Global Affairs Canada (GAC) is responsible for the management of Real Properties and Materiel assets of the department held all over the world. The Contractor will provide Information Technology professional services in support of the Bureau's lines of business including assistance in service delivery to clients, and support of the department's internal processes through systems support and maintenance.

3.0 SCOPE OF WORK

The Contractor will provide Systems support, maintenance and transition liaison (which include the business requirements analysis) of existing customized applications in ARD Real Property Bureau as follows:

1. Develop and test new applications in an international real property environment that deliver the functionality of existing in-scope applications, integrated with (or replaced by), the new functionality required by the new Real Property Management Framework, as defined by the Bureau Transformation Plan.

2. Migrate historical data from existing applications to the new Real Property Information Solution. This is particularly important in a Real Property environment, with essential business information on assets with a life cycle measured in centuries.

3. Support and maintenance of existing portfolio of customized applications used for the International Real Property Bureau at GAC and based primarily on Component Scalable Logical Architecture (CSLA) version 4.3.x through to 4.5.X. The portfolio contains approximately twelve applications which are interrelated with the ARD platform of Enterprise Real Property (ERP) applications.

4. Transition liaison to assist the migration and retirement of the existing applications, mentioned above, over to new development applications based on the updated technology and to migrate to any new Real Property Enterprise System in the future. The Contractor will also work with AROI Project Management Office (PMO) in planning and designing newly developed applications.

Architecture and code re-design will be carried out and the Contractor will also be providing support and maintenance of existing key applications that must have a minimum Down-Time and maximum Up-Time. Any issues raised with regards to the portfolio, must be resolved using existing code and architecture. The Contractor must be able to work under extremely tight schedules to provide timely response and maintain client's confidence in the portfolio

The Contractor must understand the business model within the Physical Resources Bureau and how the applications integrate to support the various divisions as well as the International Real Property assets, such as missions abroad.

4.0 ROLES, RESPONSIBILITIES AND TASKS

4.1 Application/Software Architect, Level 3

The Application/Software Architect tasks include, but are not limited to, the following:

1. Develop technical architectures, frameworks and strategies, either for an organization or for a major application area, to meet the business and application requirements in an international real property environment.
2. Analyze any new Enterprise system requirements and ensure solutions can function with existing real property systems
3. Identify the policies and requirements that drive out a particular solution.
4. Ensure that localization/internationalization is built into the software platform. Converting to and from local currencies
5. Analyze and evaluate alternative technology solutions to meet business problems.
6. Ensure the integration of all aspects of technology solutions, namely architecting the support and maintainability of internationally deployed software in all three tiers (database, business objects and user interface)

7. Monitor industry trends to ensure that solutions fit with government and industry directions for technology.
8. Analyze functional requirements to identify information, procedures and decision flows.
9. Evaluate existing procedures and methods, identify and document database content, structure, and application sub-systems, and develop data dictionary.
10. Define and document interfaces of manual to automated operations within application sub-systems, to external systems and between new and existing systems.
11. Define input and output sources, including detailed plan for technical design phase, and obtain approval of the system proposal.
12. Identify and document system specific standards relating to programming, documentation and testing, covering program libraries, data dictionaries, naming conventions, etc.
13. Develop solutions that accommodate local international building codes, measurement standards and cultures.
14. Ensure written language including accents, drawn characters (Asia) are accommodated.

4.2 Quality Assurance Specialist, Level 2 (on an as needed basis)

The Quality Assurance specialist tasks include, but are not limited to, the following:

1. Develop, review and assess appropriateness and effectiveness of quality assurance policies, procedures, metrics, forms and tools;
2. Provide expertise in the application of quality planning assurance techniques and procedures to all stages of the Informatics systems and software development life cycle;
3. Develop and update quality assurance and quality control documents such as software development standards, technical procedures and processes, objectives definition, monitoring tools;
4. Perform regression tests;
5. Develop technical writing standards and procedures;
6. Develop and evaluate performance measurement for the acceptance of systems and software.
7. Review and assess information systems and software production quality management against acknowledged internal and external criteria; and
8. Identify areas where conduct is not to standards, report these findings and their potential impacts, and recommend corrective actions.

4.3 Programmer/Analyst, Level 3

The Programmer/Analyst tasks include, but are not limited to, the following:

1. Investigate how software solutions might be used to provide solutions to business, technical or organizational problems and define the requirements of such solutions;
2. Create and modify code and software.
3. Create and modify screens and reports.
4. Gather and analyze 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.
5. Design methods and procedures for small computer systems, and sub-system of larger systems.
6. Develop, test and implement small computer systems, and sub-systems of larger systems.
7. Produce forms, manuals, programs, data files, and procedures for systems and/or applications.

4.4 Programmer/Analyst, Level 2 (on an as needed basis)

The Programmer/Analyst Level 2 is responsible for the planning, maintenance and development of application databases. The Programmer/Analyst level 2 tasks include, but are not limited to, the following:

1. Implement software solutions based on recommendations from the team members;
2. Design, produce, implement, upgrade and maintain external and internal software meeting the defined requirements;

3. Validate, through various tests, that software meets the approved specifications and ensure that they are designed and assembled within operational and technical constraints;
4. Test performance measurement and acceptance of software against targets;
5. Provide support in the integration of software within a system.
6. Create and modify code and software.
7. Create and modify screens and reports.
8. Gather and analyze 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.
9. Design methods and procedures for small computer systems, and sub-system of larger systems.
10. Develop, test and implement small computer systems, and sub-systems of larger systems.
11. Produce forms, manuals, programs, data files, and procedures for systems and applications.

4.5 Database Analyst, Level 3

The Database analyst tasks include, but are not limited to, the following:

1. Design, develop and maintain Logical Data Models
2. Analyze proposed changes to databases from the context of the Logical Data Model.
3. Provide technical assistance, guidance and direction in terms of data analysis and modeling to team members
4. Participate in data analysis as a result of new/updated requirements
5. Comply with corporate data architectures, strategies and frameworks, including enterprise data warehouse activities
6. Analyze and evaluate alternative data architecture solutions to meet business problems/requirements to be incorporated into the corporate data architecture
7. Construct, monitor and report on work plans and schedules
Need to add more for level 3

4.6 WEB Developer, Level 2

The WEB developer's tasks include, but are not limited to, the following:

1. Develop and prepare diagrammatic plans for web based service delivery over the internet and intranet.
2. Analyze the problems outlined by systems analysts and designers in terms of factors such as style and extent of information to be transferred across the internet.
3. Select and use the best available web development tools for linking the web-based client to the departmental "back end" information delivery programs and databases.
4. Design high-usability web pages to meet the requirements.
5. Verify accuracy and completeness of programs by preparing sample data, and testing them by means of system acceptance test runs made by operating personnel.
6. Correct program errors by revising instructions or altering the sequence of operations.
7. Test instructions, and assemble specifications, flow charts, diagrams, layouts, programming and operating instructions to document applications.

4.7 Project Manager, Level 3

The Project Manager's tasks include, but are not limited to, the following:

1. Manage the project during the development, implementation and operations startup by ensuring that resources are made available and that the project is developed and is fully operational within previously agreed timeframe, cost and performance parameters.
2. Formulate statements of problems; establish procedures for the development and implementation of significant, new or modified project elements to solve these problems, and obtain approval thereof.

3. Define and document the objectives for the project; determine budgetary requirements, the composition, roles and responsibilities and terms of reference for the project team.
4. Report progress of the project on an ongoing basis and at scheduled points in the life cycle.
5. Meet with stakeholders and other project managers and state problems in a form capable of being solved.
6. Prepare plans, charts, tables and diagrams to assist in analyzing or displaying problems; work with a variety of project management tools.
7. Project hand-over and sign-off

4.8 Technical Writer, Level 2 (220 days)

The Technical Writer's tasks include, but are not limited to, the following:

1. Document help text, user manuals, technical documentation and web page content;
2. Review documentation standards and existing project documentation;
3. Determine documentation requirements and make plans for meeting them;
4. Gather information concerning the features and functions provided by the developers;
5. Investigate the accuracy of the information collected by making direct use of the material being documented;
6. Prepare or coordinate the preparation of any required illustrations and diagrams;
7. Design the layout of the documents/manuals;
8. Use Microsoft Office software packages to produce final copy;
9. Provide a written report on the status of all assigned tasks and deliverables; and
10. Perform other Technical Writer related tasks incidental to the work described in the SOW.

5.0 TECHNICAL ENVIRONMENT (Logical Software Architecture)

The following list of platform-specific software corresponds to the logical architecture of AROI's multi-tier application development environments.

5.1.1   Application Server(s)
· Windows 2008/2012
· Internet Information Server (IIS /7.0 or above)
· Net Backup
· McAfee Virus Scan

5.1.2   Database Server(s)
· Windows 2008/2012
· Internet Information Server (IIS 7.0 or above)
· MS SQL 2005, 2008 R2
· SQL Reporting Services/SQL Integration Services
· McAfee Virus Scan

5.1.3   Commercial Off-The-Shelf (COTS) Hosting Server(s)
· Windows 2012
· MS SQL 2005/2008/2012
· Internet Information Server (IIS 7.0 or above)
· IO (COTS supported software)
· Java 2 Runtime Environment
· MS Project Server
· McAfee Virus Scan

5.1.4   .NET File Server(s)
· Windows 2008/2012

· Team foundation server own by SIA

5.2 Application Development Methods and Practices

In addition to the listed software environments, AROI has adopted a rigorous development methodology based on the following:

5.2.1 Microsoft Solutions Framework
· AROI Application Development leverages aspects of Microsoft Solutions Framework™ (MSF) and Microsoft Patterns and Practices combined with IT Infrastructure Library ITIL and Rational Unified Process best practices.
· AROI Application Development employs technical frameworks, tools and methodologies that ensure consistent high quality results.
· Development and Integration services include:

a. Detailed design specifications
b. Application development
c. Testing and QA
d. Product rollout
e. Creation of development environments
f. Application integration
g. Creation of technical and end user documentation

5.2.2 AROI Application Development Business Object Generator and CSLA Framework

- AROI make use of reusable software designs and best practices to easily face the challenge of advancing technologies.
- AROI Application Development Business Object Generator provides a pure .NET Implementation of architectural principals. These principals are leveraged with the CSLA base class library from which classes of business objects can be designed and created.
- CSLA.NET versions 4.3.x through 4.5.x are used and supported
- Applications developed using the CSLA framework achieve the best possible performance and scalability.

The task of creating high-performance object oriented application in a distributed NET environment is simple. The immediate benefits of the AROI Application Development Business Object Generator include:
- Architectural Consistency
- Code Consistency
- Enhancements to the .NET Framework
- Leveraged CSLA framework
- Fully debugged code

5.2.3 Development Methods

- AROI Application Development build tools provide a time saving repeatable process for managing the delivery of code
- AROI Application Development uses a collection of tools that organize build activities, as well as control build scheduling, unit testing code compilation and generation of build documentation,.

    These tools are built on open standards:

a. Microsoft team foundation - source code control
b. MS Visual studio uses C# as the primary development language

c.   Utilizing windows CLI to support automated SSIS execution
d.   A UNIT testing framework - Controls execution of units tests and reporting of test results
e.   Code generators and optimizers - Checks and reports conformance of software to the .Net Framework Design Guidelines
f.   .NET code documentation generation. Creates a compiled windows help file.
g.   ASP.NET MVC 4 plus Javascript application development using Microsoft Visual Studio
h.   In developing applications and/or services which manage Microsoft Active Directory attributes, LDAP and the ADSI API are used in an enterprise environment
i.   The web server in use is the Microsoft IIS 8.5 environment(s). Pages are developed in HTML and ASP.NET Razor

5.2.4 Database Standard

Microsoft SQL Server 2005 moving towards 2008 R2 is the standard DBMS. Transact SQL is the Microsoft SQL Server database language. The data architecture standard is to adhere to the SQL92 standards whenever possible and feasible. SQL Server Integration and Reporting Services 2008 R2

Reports are designed with SQL Report Writer/Server, Antenna House and Adobe Central Pro XML, SQL Query Optimizer. AROI also uses SQL Profiler Trace to troubleshoot and interpret application code calls.

Databases are deployed on three distinct platforms:

1.   the development platform;
2.   the testing, quality assurance, certification and training platform; and
3.   the production platform once internal testing and certification have been completed.

5.2.5 Web

AROI undertakes .NET application development using Microsoft Visual Studio .NET and:
1.   works within a software development environment utilizing a SDLC methodology, and Component Scalable Logical Architecture (CSLA) framework;
2.   ASP.NET application development utilizing C# or with Microsoft Visual Studio .NET;
3.   develops reports with SQL Report Writer,;
4.   supports application development in a Microsoft Visual Studio.NET 2008/2012/2017 within a team foundation version control.
5.   supports, documents and provides operational training for the deployment and administration of components utilizing COM and DCOM or the .NET Framework; and
6.   ASP.NET MVC 4 plus Javascript application development using Microsoft Visual STUDIO.
7.   Uses and complies with the WEB Experience Toolkit (WET) whenever feasible

5.2.6 Other Applications

AROI has developed applications supported by the following products:
•   MS Access
•   MS Excel
•   AutoCad
•   CSLA with Microsoft MVC (Model View Controller)

5.2.7 Testing

AROI develops test plans and test scripts from functional requirements of client application systems. AROI prepares application documentation during the complete project life cycle:

1.   tests applications that interact with Active Directory;

2.   employs USE Cases, Activity Diagrams, and other UML documentation to develop test cases, executes test plans to verify application functionality, performance, readiness and compliance with business requirements;

3.   performs application stress test, analyzing and interpreting performance using Microsoft Application Test Center.

6.0 DELIVERABLES

The Contractor will provide, at no additional cost to Canada, the deliverables, documents, reports and progress reports required by the Technical Authority as stated in the Task Authorization, and will attend weekly review meetings as and when requested by the Technical Authority, or as specified in each Task Authorization.

The Contractor will provide monthly progress reports to the Technical Authority or more frequently as requested by the Technical Authority. Progress reports must be made in writing using Microsoft WORD document and/or Microsoft EXCEL spreadsheet at the discretion of the Technical Authority. The progress reports must, at a minimum, include the following:

1.   the status of the work scheduled for completion during the reporting period;
2.   details of problems encountered, proposed solutions, and changes to the work plan;
3.   a summary of work expected to be completed during the next period, and;
4.   action required to be taken over the next period.

7.0 LOCATION OF WORK

The work must be performed in the National Capital Region (NCR), and on the premises of the Global Affairs Canada. All appropriate workstations will be provided. All necessary access to the various IT networks will be provided on an as required basis.

An Alternate location may be necessary if space is not available at any GAC premises or if technical difficulties interrupt the day to day work environment and resources may be re-located to another area.

8.0 LANGUAGE REQUIREMENT

English and /or Bilingual

9.0 TRAVEL REQUIREMENT

There is no travel associated with this requirement.

ALL OTHER TERMS AND CONDITIONS REMAIN UNCHANGED