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	
TBIPS Engineering Professional Serv	
Solicitation No. - N° de l'invitation 47419-198132/A	**Amendment No. - N° modif.** 013
Client Reference No. - N° de référence du client 1000348132	**Date** 2020-04-28

GETS Reference No. - N° de référence de SEAG
PW-$$EL-606-37486

File No. - N° de dossier 606el.47419-198132	**CCC No./N° CCC - FMS No./N° VME**

Solicitation Closes - L'invitation prend fin at - à **02:00 PM** on - le **2020-05-08**	**Time Zone** **Fuseau horaire** Eastern Daylight Saving Time EDT

F.O.B. - F.A.B.
Plant-Usine: ☐ Destination: ☑ Other-Autre: ☐

Address Enquiries to: - Adresser toutes questions à: Mansour, Silvana	**Buyer Id - Id de l'acheteur** 606el
Telephone No. - N° de téléphone (613) 858-9935 ( )	**FAX No. - N° de FAX** ( ) -

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**

This document includes responses to questions received from potential bidders and an amendment.

Question 46:

Appendix C to Annex A- Resource Assessment Criteria and Response Table:

The current structure of CBSA's resource grids presents the successful bidder with very limited capacity to deliver on the contract post-award. Most resource categories require 5+ years' experience in cloud as a mandatory requirement (plus numerous other detailed requirements). Even bidders with a strong national presence in cloud that can attract resources from other provinces & industries will struggle to meet CBSA's volume requirements at that current mandatory threshold.

A threshold of 3+ years in cloud would increase CBSA's access to the cloud talent pool, while still holding the vendor accountable to providing quality resources.

Can CBSA please amend grid criteria in the following categories to require '3+ years' of experience in cloud:
** Note: 'I.6 Network Analyst' & 'I.11 Technology Architect' are NOT included on this list, as those categories are part of the RFP evaluation.

- o **I.7 Platform Analyst:** M2.1
- o **I.9 System Administrator:** M3.2
- o **I.10 Technical Architect:** M4.1; M4.2
- o **A.1 Application/Software Architect:** M7.3; M7.4
- o **A.7 Programmer/Analyst:** M8.1
- o **I.1 Data Conversion Specialist (Cloud Data Migrations):** M10.3

Answer 46:

Canada has considered the request. The following criteria are amended:

- o I.7 Platform Analyst: M2.1
- o I.9 System Administrator: M3.2
- o I.10 Technical Architect: M4.1; M4.2; R4.2
- o A.1 Application/Software Architect: M7.4 (M7.3 is unchanged)
- o A.7 Programmer/Analyst: R8.1; R8.4; (M8.1 is unchanged)
- o I.1 Data Conversion Specialist (Cloud Data Migrations): R10.2; R10.4; (M10.3 is unchanged)

See amendment below.

Question 47:

Appendix C to Annex A- Resource Assessment Criteria and Response Table:

Category 'I.7- Platform Analyst' and 'A.7- Programmer/Analyst' have Mandatory criteria that will significantly inhibit the successful bidder from providing resources through these categories. This includes:

- **I.7- Platform Analyst**
    o M2.1: "…five (5) years' experience as a Platform Analyst performing analysis, detailed design, implementation and support of critical <u>cloud platform technologies</u>…"
    o M2.4 : twelve (12) months' experience within the last five (5) years implementing solutions involving;
        ▪ Biometric security models and multi-factor authentication, secure enclave processing
        ▪ Mobile device-based multi factor authentication
        ▪ Cloud-based identity access management
- **A.7- Programmer/Analyst**
    o M8.1: "…(5) years' experience within the last ten (10) years designing, developing, testing and deploying code and software for a <u>cloud computing environment</u>."
    o M8.4 : "…twelve (12) months experience within the last five (5) years coding, testing and implementing solutions involving:
        ▪ Biometric security models and multi-factor authentication, secure enclave processing;
        ▪ Mobile device-based multi factor authentication; and
        ▪ Cloud-based identity access management.

Finding resources that meet <u>ALL</u> three bullets in M2.1 and M8.4, AND have 5+ years of cloud experience will render this categories almost unusable post-contract award.

Can CBSA please amend grid criteria to read the following:

    o M2.1: "…three (3) years' experience as a Platform Analyst performing analysis, detailed design, implementation and support of critical <u>cloud platform technologies</u>…"
    o M2.4 : twelve (12) months' experience within the last five (5) years implementing solutions involving one of the following;
        ▪ Biometric security models and multi-factor authentication, secure enclave processing
        ▪ Mobile device-based multi factor authentication
        ▪ Cloud-based identity access management
    o M8.1: "…three (3) years' experience within the last ten (10) years designing, developing, testing and deploying code and software for a <u>cloud computing environment</u>."
    o M8.4 : "…twelve (12) months experience within the last five (5) years coding, testing and implementing solutions involving one of the following:

- Biometric security models and multi-factor authentication, secure enclave processing;
- Mobile device-based multi factor authentication; and Cloud-based identity access management.

Answer 47:

Canada has considered the request. Insofar as M2.1 and M8.1, please refer to the response provided for Question 46 above. The following criteria are amended:

- o I.7 Platform Analyst: M2.4
- o A.7 Programmer/Analyst: M8.4

See amendment below.

Question 48:

Request for extension:

Maintaining healthy relationships with our clients is of the utmost importance to us, and we are mindful of the stressors that COVID-19 has placed upon our clients' businesses and operations. For many of our public sector clients, they are prioritizing the development and execution of critical policies that will have an immediate effect on their citizens at a local and national level. Our respect of our clients' time and resources is also a reflection of how we intend to respect and manage our relationship with CBSA as a selected proponent of this RFP. Furthermore, our clients have requested additional time to provide the level of information required in requirements such as CR4, without drawing their attention away from their current pressing matters.

With this in mind, we kindly request that CBSA extend the deadline of this RFP by simply one-week to allow our clients the time to provide us with their signed reference letters. We are empathetic to our clients' concerns and requests for this additional time, and we humbly ask that the Crown give our request true consideration.

Answer 48:

The solicitation closing date is extended by one week to May 8, 2020. See amendment below.

Question 49:

Word Count clarification

How does the Crown intend to assess the word count of bidders' responses as it pertains to the use of graphics? As an example, most graphics may include limited text and/or headings to

contextualize the image for the reader. To ensure that bidders are not heavily penalized for attempting to demonstrate their experience in a brief and concise way, kindly confirm that the Crown will exclude from the word count accompanying text that is minimal in nature that appears in graphics/images.

Answer 49:

Canada will not be counting descriptive text that is minimal in nature (less than 25 words) and appearing in graphics/images to illustrate points or clarify text that is included and counted elsewhere.

Question 50:

Regarding Corporate Criteria CR1 (Public Cloud Migration Roadmap)

CR1 requires project experience relative to the Government of Canada by providing an example of a public-cloud migration roadmap (a linear representation of detailed activities over time) that was delivered within the past three years (prior to solicitation issue date) to any Canadian public sector organization* OR to a federal-level government Department or Agency for one of the Border Five** countries supporting its move to public-cloud infrastructure."

* public sector organization is defined as any Department, Agency or Crown Corporation of the Canadian Federal Government, Canadian Provincial Governments, and Canadian Municipal governments (representing Pop. 1+ Million).

** Border Five countries include: Canada, United States, United Kingdom, Australia and New Zealand.

With respect to the Border Five countries, will the Crown confirm that, for instance, a project delivered to a state or municipal-level government within one of the five countries and of an equivalent size and magnitude to a Canadian Provincial or Municipal government would be compliant and receive points for CR1?

Answer 50:

Canada has considered the request. The criteria has been modified to include projects delivered to a federal level department or agency for all Border Five countries and those developed for a state or municipality within those countries with a population of 1+ Million inhabitants.
See amendment below.

AMENDMENT

At Page 1

DELETE:

The solicitation closes at 2:00 p.m. EDST on May 1, 2020

INSERT:

The solicitation closes at 2:00 p.m. EDST on May 8, 2020

AT APPENDIX C TO ANNEX A – RESOURCE ASSESSMENT CRITERIA AND RESPONSE TABLE

DELETE:

Appendix C to Annex in its entirety.

REPLACE WITH:

APPENDIX C TO ANNEX A
RESOURCES ASSESSMENT CRITERIA AND RESPONSE TABLE

To facilitate resource assessment, the Contractor must prepare and submit a response to a draft Task Authorization using the tables provided in this Annex. When completing the resource grids, the specific information which demonstrates the requested criteria and reference to the page number of the résumé should be incorporated so that Canada can verify this information. The tables should not contain all the project information from the resume. Only the specific answer should be provided.

To demonstrate compliance with all criteria, the Contractor must include the following information:

- Project name;
- Client organization;
- Project start /end dates and duration;
- Project description;
- Description of role and tasks performed by the resource.

The Contractor must also include the following information for the most recent project referenced in response to any of the criteria:

- Contact information of client project representative

The Contractor must provide the following information for projects referenced (other than the most recent) in response to any of the criteria upon request from CBSA:

- Contact information of client project representative

1.0   Mandatory Resource Assessment Criteria:

NOTE TO CONTRACTOR: Where indicated by **_bold italics_**, those terms are defined within the Glossary.

I.6 Network Analyst – Level 3

Resource Category: I.6 Network Analyst – Level 3

Name of Proposed Resource: _____

Criteria	Mandatory Requirement	Bidder's Response	
		Demonstrated experience (Bidders to insert data)	**Insert page # of resume**
M1.1	The Contractor MUST demonstrate that the Proposed Resource has a minimum of ten (10) years' experience within the last fifteen (15) years working on **_Enterprise-Class IT_** systems performing **all** of the following tasks: • Documenting network **_configurations[1]_** and settings; • Contributing to the development of OSI network architecture models; • Installing and configuring Next-Generation firewalls; • Performing networking/routing **_configuration[2]_** and intrusion detection/prevention; • Utilizing network monitoring tools; firewall, anti-malware and packet analyzers; • Supporting converged infrastructure and virtual environments; • Automating network administration tasks via shell scripts; • Troubleshooting network problems, issue determination and resolution; and • Conducting and assisting in interactive security debugging, testing and analysis of security attacks and system failures. Note: To qualify, a project must have a minimum duration of six (6) months		

Resource Category: I.6 Network Analyst – Level 3		
Name of Proposed Resource: _____		

Criteria	Mandatory Requirement	Bidder's Response	
		Demonstrated experience (Bidders to insert data)	**Insert page # of resume**
M1.2	The Contractor MUST demonstrate that the Proposed Resource has a minimum of five (5) years' experience within the last eight (8) years designing and architecting Infrastructure solutions leveraging cloud technologies and services including **all** of the following: • ***Next Generation Firewalls*** • Virtual networks, subnets and User Defined Routing (UDR) • Multi-Protocol Label Switching • Security Groups • Application gateways and load balancing • Network failover • Containers • ***Elastic Computing*** • Storage and backup • Infrastructure as Code Note: To qualify, a project must have a minimum duration of six (6) months		
M1.3	The Contractor MUST demonstrate that the Proposed Resource has a minimum of eighteen (18) months experience within the past five (5) years deploying and configuring virtual networks, routing and ***Next Generation Firewalls*** supporting a Cloud environment designed to meet any of the following security control profiles: • the Government of Canada Protected B Medium integrity Medium availability (PBMM) Profile. • FEDRAMP Moderate or High Level • ISO 27001, ISO 27017 and ISO 27018		
M1.4	The Contractor MUST demonstrate that the Proposed Resource has one or more of the following certifications applicable to Infrastructure as a Service (IaaS) platforms from one or more Leaders in the Gartner 2019 Magic Quadrant for IaaS Cloud (i.e. AWS, Azure, or Google) • AWS Certified Advanced Networking Specialty • AWS Certified Solutions Architect Professional		

Resource Category: I.6 Network Analyst – Level 3			
Name of Proposed Resource: _____			
Criteria	**Mandatory Requirement**	**Bidder's Response**	
		Demonstrated experience (Bidders to insert data)	**Insert page # of resume**
	• Microsoft Certified: Azure Administrator Associate AND Azure Enterprise-Class Networking Workshop elective OR MCSE: Cloud Platforms and Infrastructure • Azure Solutions Architect Expert • Professional Cloud Network Engineer (GCP) • Professional Cloud Architect (GCP) A copy of the certification(s) must be provided with the bid.		

I.7 Platform Analyst – Level 3

Resource Category: I.7 Platform Analyst – Level 3			
Name of proposed Resource: _____			
Criteria	**Mandatory Requirement**	**Bidder's Response**	
		Demonstrated experience (Bidders to insert data)	**Insert page # of resume**
M2.1	The Contractor MUST demonstrate that the Proposed Resource has a minimum of five (5) years' experience as a Platform Analyst performing analysis, detailed design, implementation and support of platform technologies for a large user base*, of which: - 2 years involved critical* platform technologies; - 3 years involved cloud platform technologies. Note: Critical is defined as having **High Availability** (99%) service requirements. Large user base is defined as having 3000 or more active users. Note: To qualify, a project must have a minimum duration of six (6) months		

Resource Category: I.7 Platform Analyst – Level 3

Name of proposed Resource: _____

Criteria	Mandatory Requirement	Bidder's Response	
		Demonstrated experience (Bidders to insert data)	Insert page # of resume
M2.2	The Contractor MUST demonstrate that the Proposed Resource has a minimum of twelve (12) months' experience within the last five (5) years designing, implementing, developing or supporting platforms complying with at least four of the following security standards/requirements: • OWASP Proactive Controls • FIPS 140-2 • FIPS 186-4 • SOC 2 controls • ISO 27001, ISO 27017 and ISO 27018 Note: To qualify, a project must have a minimum duration of six (6) months. The experience can be demonstrated in various combinations of the listed standards/requirements across different projects, however the minimum twelve (12) months experience must be demonstrated for EACH security standard/requirement. Overlapping periods will count only once for each standard/requirement.		
M2.3	The Contractor MUST demonstrate that the Proposed Resource has a minimum of twelve (12) months' experience within the last five (5) years working with **all** of the following identity federation standards: • OpenID Connect and OAuth 2.0 or later • SAML 2.0 or later Note: To qualify, a project must have a minimum duration of six (6) months. The experience can be demonstrated in various combinations across different projects, however the minimum twelve (12) months experience must be demonstrated for EACH. Overlapping periods will count only once for each standard.		
M2.4	The Contractor MUST demonstrate that the Proposed Resource has a minimum of twelve (12) months' experience within the last five (5) years implementing solutions involving Cloud-based identity access management, Multi-		

Resource Category: I.7 Platform Analyst – Level 3			
Name of proposed Resource: _____			
Criteria	**Mandatory Requirement**	**Bidder's Response**	
		Demonstrated experience (Bidders to insert data)	**Insert page # of resume**
	factor authentication AND one of the following; • Biometric security models • Secure enclave processing Note: To qualify, a project must have a minimum duration of six (6) months. The experience can be demonstrated in various combinations across different projects, however the minimum twelve (12) months experience must be demonstrated for EACH of the three requirements above. Overlapping periods will count only once for each standard/requirement.		
M2.5	The Contractor MUST demonstrate that the Proposed Resource has a minimum of twelve (12) months' experience within the last five (5) years deploying a Level of Assurance 4 identity authentication solution for an organization with a user base of 3000 or more active users. Note: To qualify, a project must have a minimum duration of six (6) months.		

I.9 System Administrator – Level 3

Resource Category: I.9 System Administrator – Level 3			
Name of proposed Resource: _____			
		Bidder's Response	
Criteria	**Mandatory Requirement**	**Demonstrated experience (Bidders to insert data)**	**Insert page # of resume**
M3.1	The Contractor MUST demonstrate that the Proposed Resource has a minimum of five (5) years' experience within the last ten (10) years provisioning, administering and supporting **all** of the below infrastructure and services		

Resource Category: I.9 System Administrator – Level 3

Name of proposed Resource: _____

Criteria	Mandatory Requirement	Bidder's Response	
		Demonstrated experience (Bidders to insert data)	Insert page # of resume
	hosted on a public or private cloud service: • ***Elastic Computing*** • Virtual Appliances • Storage • Backup solutions • User credentials • Secure Remote Access • Application gateways and load balancing Note: To qualify, a project must have a minimum duration of six (6) months. The experience can be demonstrated in various combinations across different projects, however the minimum five (5) years' experience must be demonstrated for EACH one of the infrastructure and services listed above. Overlapping periods will count only once for each infrastructure and service.		
M3.2	The Contractor MUST demonstrate that the Proposed Resource has a minimum of three (3) years' experience within the last ten (10) years performing **all** of the following tasks in a Cloud environment: • Performing general system administration duties including managing permissions, and installing upgrades and patches on public cloud systems; • Installing and configuring software, resources and services; • Performing system monitoring, analysis, and performance tuning; • Configuring and managing secure connections between the client in-premise environments and the cloud; • Investigating and resolving security issues; • Investigating and resolving application performance issues; and • Scripting and automating tasks to manage resources and services in the cloud environments. Note: To qualify, a project must have a minimum duration of six (6) months		

Resource Category: I.9 System Administrator – Level 3			
Name of proposed Resource: _____			
		Bidder's Response	
Criteria	**Mandatory Requirement**	**Demonstrated experience (Bidders to insert data)**	**Insert page # of resume**
M3.3	The Contractor MUST demonstrate that the Proposed Resource has a minimum of five (5) years' experience within the last ten (10) years performing **all** of the following tasks: • Collaborating with Cloud Architects, providing feedback and implementing conceptual, logical or physical designs or architectures; • Developing and executing Quality Assurance tests on newly provisioned environments and recording and communicating the results; • Performing system hardening on newly provisioned environments; • Conducting compliance monitoring and inventory auditing; and • Creating and maintaining structured and thorough Build Books that contain a detailed and current *configuration*[1] of the environment, with validated Rebuild and Provisioning Procedures. Note: To qualify, a project must have a minimum duration of six (6) months		

I.10 Technical Architect (Cloud Security) – Level 3

Resource Category: I.10 Technical Architect (Cloud Security) – Level 3			
Name of proposed Resource: _____			
		Bidder's Response	
Criteria	**Mandatory Requirement**	**Demonstrated experience (Bidders to insert data)**	**Insert page # of resume**
M4.1	The Contractor MUST demonstrate that the Proposed Resource has three (3) years' experience leading the Security Assessment and Authorization efforts within a North American *public sector organization* for the successful authorization of government Protected B (or equivalent)** cloud deployments.		

Resource Category: I.10 Technical Architect (Cloud Security) – Level 3

Name of proposed Resource: _____

Criteria	Mandatory Requirement	Bidder's Response	
		Demonstrated experience (Bidders to insert data)	**Insert page # of resume**
	* Successful has the following characteristics: The cloud deployment has been designed with specific controls and to meet specific security requirements, has undergone assessment according to a recognized Security Assessment & Authorization process and received an Authority to Operate from the appropriate responsibility area. ** "Protected B" data is defined as sensitive personally-identifiable private data which could be injurious to an individual or organization if compromised. Note: To qualify, a project must have a minimum duration of six (6) months		
M4.2	The Contractor MUST demonstrate that the Proposed Resource has five (5) years' experience, of which 3 years or more were within a Cloud environment, performing **ALL** of the following tasks: • Defining Technical and Functional security requirements; • Creating Security Architecture; • Participating in Infrastructure and Application Architecture Reviews; • Participating in Infrastructure and Application Design Reviews; and • Performing IT Certification or Assessment activities. Note: To qualify, a project must have a minimum duration of three (3) months		
M4.3	The Contractor MUST demonstrate that the proposed resource has any three (3) of the following certifications: • Certified Cloud Security Professional • Certified Information System Security Professional (CISSP) • Certified ISO 27001 Lead Implementer • Certified Information Systems Auditor (CISA) • Certified Information Security Manager (CISM) • Certified in Risk and Information System Control (CRISC)		

Resource Category: I.10 Technical Architect (Cloud Security) – Level 3		
Name of proposed Resource: _____		

Criteria	Mandatory Requirement	Bidder's Response	
		Demonstrated experience (Bidders to insert data)	Insert page # of resume
	• Cloud Security Alliance Cloud Security Knowledge (CCSK) • GIAC Industrial Cyber Security Professional (GICSP) • Payment Card Industry – Qualified Security Assessor (PCI-QSA) • System Security Certified Practitioner (SSCP) A Copy of the Certifications must be provided.		

I.11 Technology Architect – Level 3

Resource Category: I.11 Technology Architect – Level 3		
Name of proposed Resource: _____		

Criteria	Mandatory Requirement	Bidder's Response	
		Demonstrated experience (Bidders to insert data)	Insert page # of resume
M5.1	The Contractor MUST demonstrate that the Proposed Resource has a minimum of ten (10) years' experience within the last fifteen (15) years working on *Enterprise-class* IT systems performing a minimum of six of the following tasks: • Gathering and documenting business requirements; • Developing Systems Architecture; • Developing Logical and Physical cloud models; • Developing and Implementing architectural strategies and plans; • Contributing to overall project plans, testing strategies, security and infrastructure design; • Developing processes to enable the migration of data or workloads from source to destination systems; • Contributing expertise and resolving Issues related to architectural challenges; and • Reporting on progress to management using standard approaches and visualization (charts, etc.).		

Resource Category: I.11 Technology Architect – Level 3

Name of proposed Resource: _____

Criteria	Mandatory Requirement	Bidder's Response	
		Demonstrated experience (Bidders to insert data)	Insert page # of resume
	Note: To qualify, a project must have a minimum duration of six (6) months		
M5.2	The Contractor MUST demonstrate that the Proposed Resource has a minimum of five (5) years' experience within the last eight (8) years designing and architecting infrastructure services or applications leveraging a minimum of five of the following cloud technologies: • ***Elastic Computing*** • Cloud storage and backup • Networking (Firewalls, User Defined Routing) • Application gateways and load balancing • Database or DataWarehouse-as-a-Service • Identity, Credential and Access Management Note: To qualify, each project must have a minimum duration of six (6) months		

M5.3	The Contractor MUST demonstrate that the Proposed Resource has a minimum of eighteen (18) months' experience in the last five (5) years (as of solicitation issue date) architecting and executing a solution to migrate an existing ***Enterprise-class*** secure* application or service to the cloud.
	
	*Secure is defined as meeting one of the following security control profiles:
	    o the Government of Canada Protected B Medium integrity Medium availability (PBMM).
	    o FEDRAMP Moderate or High Level
	    o ISO 27001, ISO 27017 and ISO 27018
	
	Note: To qualify, a project must have a minimum duration of six (6) months		

M5.4	The Contractor MUST demonstrate that the Proposed Resource has a minimum of two (2) years' experience within the last ten (10) years (as of solicitation issue date) designing, developing (coding), testing, implementing and supporting application solutions. Note: To qualify, a project must have a minimum duration of six (6) months		

Resource Category: I.11 Technology Architect – Level 3			
Name of proposed Resource: _____			
		Bidder's Response	
Criteria	**Mandatory Requirement**	**Demonstrated experience (Bidders to insert data)**	**Insert page # of resume**
M5.5	The Contractor MUST demonstrate that the Proposed Resource has: One of the following certifications applicable to Infrastructure as a Service (IaaS) platforms from one or more Leaders in the Gartner 2019 Magic Quadrant for IaaS Cloud (i.e. AWS, Azure, or Google): • Azure Solutions Architect Expert • Amazon Solutions Architect Associate • Professional Cloud Architect (GCP) A copy of the certificate(s) must be provided with the bid.		

B.2 Business Architect – Level 3

Resource Category: B.2 Business Architect – Level 3			
Name of proposed Resource: _____			
		Bidder's Response	
Criteria	**Mandatory Requirement**	**Demonstrated experience (Bidders to insert data)**	**Insert page # of resume**
M6.1	The Contractor MUST demonstrate that the proposed resource has a minimum of ten (10) years' experience within the last fifteen (15) years performing **all** of the following tasks and activities for Large* organizations; • Researching, defining and communicating the current business architecture for Information Technology service delivery using deliverables such as: Strategy Maps, Business Model Canvas, Value Chains, Business Capability Models, Business Process Models; • Reviewing, Analyzing and evaluating emerging technologies, trends, business models and best practices to identify new services and delivery models that would better serve the clients or customers of the organization;		

Resource Category: B.2 Business Architect – Level 3

Name of proposed Resource: _____

Criteria	Mandatory Requirement	Bidder's Response	
		Demonstrated experience (Bidders to insert data)	Insert page # of resume
	• Assessing an organizations' capacity and capability to undertake and deliver on an initiative or a change; and • Researching, defining and communicating the value and Return on Investment (ROI) of proposed services and transformation initiatives through: Business Cases, Logic Models, Outcomes Registers, Benefits Realization Plans, and Key Performance Indicators (KPIs). * Large organizations are defined as organizations having 2000 or more employees OR organizations having 1500 or more employees **and** multiple lines of business each with separate organization structures and strategic objectives Note: To qualify, a project must have a minimum duration of six (6) months		
M6.2	The Contractor MUST demonstrate that the proposed resource has worked on a minimum of two (2) projects in the last five (5) years : • Guiding and leading people, process and organizational change in response to disruptive forces or opportunities towards desired business outcomes by meeting with variety* of project stakeholders to help build awareness and secure buy-in for cross-organization initiatives and release readiness • Working with domain architects (information, data, application) and solution architects to align technical design decisions with business needs and goals *Variety is defined as at least 3 different stakeholder groups (internal and/or external) Note: To qualify, a project must have a minimum duration of six (6) months		

A.1 Application/Software Architect (Cloud Solutions) – Level 3

Resource Category: A.1 Application/Software Architect (Cloud Solutions) – Level 3

Name of proposed Resource: _____

		Contractor's Response	
Criteria	**Mandatory Requirement**	**Demonstrated experience (Contractors to insert data)**	**Insert page # of resume**
M7.1	The Contractor MUST demonstrate that the Proposed Resource has a minimum of ten (10) years' experience* within the last fifteen (15) years performing **all** of the following tasks: • Develop technical architectures, frameworks and strategies, to meet the business and application requirements; • Analyze and evaluate alternative technology solutions to meet business problems; • Ensure the integration of all aspects of technology solutions; • 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 sub-systems, to external systems and between new and existing systems; and • Define input/output sources, including detailed plan for technical design phase, and obtain approval of the system proposal. Note: To qualify, a project must have a minimum duration of six (6) months		
M7.2	The Contractor MUST demonstrate that the proposed resource has a minimum of five (5) years' experience within the last ten (10) years performing **all** of the following tasks: • Performing requirements analysis, data profiling, effort estimation for database design and documenting the results; • Translating complex technical terminology, concepts and issues in terms understandable to technical and nontechnical management and resources staff; • Developing and maintaining conceptual, logical, and physical diagrams of the applications, software, and database architectures for business critical applications; and		

Resource Category: A.1 Application/Software Architect (Cloud Solutions) – Level 3			
Name of proposed Resource: _____			
		Contractor's Response	
Criteria	**Mandatory Requirement**	**Demonstrated experience (Contractors to insert data)**	**Insert page # of resume**
	• Ensuring projects adhered to client's application, data, and database standards and policies Note: To qualify, a project must have a minimum duration of six (6) months		
M7.3	The Contractor MUST demonstrate that the proposed resource has a minimum of five (5) years' experience within the last ten (10) years performing **all** of the following tasks within a public cloud environment: • Creating the conceptual, logical and physical designs for application architectures and their interoperability; • Researching, analyzing, recommending and selecting technical approaches to address challenging development and integration problems with application architectures; and • Developing implementation plans for the deployment of application architectures. Note: To qualify, a project must have a minimum duration of six (6) months		
M7.4	The Contractor MUST demonstrate that the Proposed Resource has a minimum of three (3) years' experience within the last eight (8) years designing and implementing cloud solutions employing 5 or more of the following cloud technologies and services: • ***Elastic Computing*** • Cloud storage and backup • Automation • Network Virtual Appliances (Firewalls) • Application gateways and load balancing • Database-as-a-Service • Identity, Credential and Access Management Note: To qualify, a project must have a minimum duration of six (6) months		
M7.5	The Contractor MUST demonstrate that the proposed resource has a minimum of one (1) year experience designing and		

Resource Category: A.1 Application/Software Architect (Cloud Solutions) – Level 3

Name of proposed Resource: _____

Criteria	Mandatory Requirement	Contractor's Response	
		Demonstrated experience (Contractors to insert data)	Insert page # of resume
	implementing cloud solutions for a ***public sector organization***. Note: To qualify, a project must have a minimum duration of six (6) months		
M7.6	The Contractor MUST demonstrate that the Proposed Resource has: One of the following certifications applicable to Infrastructure as a Service (IaaS) platforms from one or more Leaders in the Gartner 2019 Magic Quadrant for IaaS Cloud (i.e. AWS, Azure, or Google): • Azure Solutions Architect Expert • Amazon Solutions Architect Associate • Professional Cloud Architect (GCP) A copy of the certificate(s) must be provided.		

A.7 Programmer/Analyst (Cloud Solutions) – Level 3

Resource Category: A.7 Programmer/Analyst (Cloud Solutions) – Level 3

Name of proposed Resource: _____

Criteria	Mandatory Requirement	Contractor's Response	
		Demonstrated experience (Contractors to insert data)	Insert page # of resume
M8.1	The Contractor MUST demonstrate that the Proposed Resource has a minimum of five (5) years' experience within the last ten (10) years designing, developing, testing and deploying code and software for a cloud computing environment. Note: To qualify, a project must have a minimum duration of six (6) months		

Resource Category: A.7 Programmer/Analyst (Cloud Solutions) – Level 3

Name of proposed Resource: _____

Criteria	Mandatory Requirement	Contractor's Response	
		Demonstrated experience (Contractors to insert data)	Insert page # of resume
M8.2	The Contractor MUST demonstrate that the Proposed Resource has a minimum of seven (7) years' experience within the last ten (10) years designing, developing and implementing web-based applications using the following two languages: • Java • Node JS Note: The experience required is a combined total, however a minimum of 3 years must be demonstrated for EACH language. To qualify, a project must have a minimum duration of six (6) months.		
M8.3	The Contractor MUST demonstrate that the Proposed Resource has a minimum of two (2) years' experience within the last five (5) years' *refactoring* and deploying *Enterprise-class* solutions. Note: To qualify, a project must have a minimum duration of six (6) months.		
M8.4	The Contractor MUST demonstrate that the Proposed Resource has a minimum of twelve (12) months experience within the last five (5) years coding, testing and implementing solutions involving Cloud-based identity access management, Multi-factor authentication AND one of the following: • Biometric security models • Secure enclave processing Note: To qualify, a project must have a minimum duration of six (6) months. The experience can be demonstrated in various combinations across different projects, however the minimum experience must be demonstrated for EACH one of the three bullets above. Note: To qualify, a project must have a minimum duration of six (6) months		

I.1 Data Conversion Specialist (Cloud Data Scientist)– Level 3

Resource Category: I.1 Data Conversion Specialist (Cloud Data Scientist) – Level 3

Name of proposed Resource: _____

Criteria	Mandatory Requirement	Contractor's Response	
		Demonstrated experience (Contractors to insert data)	Insert page # of resume
M9.1	The Contractor MUST demonstrate that the proposed resource has a minimum of five (5) years' experience within the last ten (10) years performing **all** of the following tasks and responsibilities: • Using methodologies from Machine Learning, Deep Learning and Artificial Intelligence; • Applying Machine Learning using diverse types of data, diverse data sources and different types of learning models; • Developing queries to isolate data with high value within a Data Warehouse, Data Mart or Data Lake; • Performing exploratory data analysis, rapid prototyping and presenting creative ideas to exploit data to drive deeper insights and business value; • Providing proactive data analysis of large structured and unstructured datasets involving a wide range of systems across multiple disparate data sets; and • Developing data analytic and visualization plans to support high-quality, fact-based business decisions. Note: To qualify, a project must have a minimum duration of six (6) months		
M9.2	The Contractor MUST demonstrate that the proposed resource has a minimum of five (5) years' experience within the last ten (10) years performing a minimum of five (5) of the following tasks and activities: • Working with scalable data platforms such as; Power BI, Hadoop, Spark, Redshift, NoSQL (dynamoDB / MongoDB); • Building the tools and supporting data structures needed to analyze data and perform data cleaning activities; • Determining problematic issues with data and proposing feasible resolutions; • Organizing, mapping, analyzing numerous data sets to incorporate them into one centralized data repository;		

Resource Category: I.1 Data Conversion Specialist (Cloud Data Scientist) – Level 3

Name of proposed Resource: _____

Criteria	Mandatory Requirement	Contractor's Response	
		Demonstrated experience (Contractors to insert data)	Insert page # of resume
	• Performing exploration of data, including analysis, mining of correlations and result verification; • Developing and deploying solutions that addressed data aggregation challenges, including data being distributed across numerous databases or sources; and • Developing and implementing strategies for data enrichment. Note: To qualify, a project must have a minimum duration of six (6) months		
M9.3	The Contractor MUST demonstrate that the proposed resource has a minimum of three (3) years' experience within the last five (5) years performing a minimum of three (3) of the following tasks and activities; • Identifying opportunities for automation, knowledge discovery, decision-making, insights, optimization, and new capabilities; • Developing frameworks and best practices for analytic solutions at different maturity levels; • Preparing documentation, reports, and presentations that explain advanced analytics concepts, technology, and inner workings of solutions to broader teams, including non-technical audiences; and • Mentoring other data scientists in the design, implementation, testing, prototyping, and deploying of data analytic solutions. Note: To qualify, a project must have a minimum duration of six (6) months		
M9.4	The Contractor MUST demonstrate the proposed resource holds: A Masters' degree in a quantitative discipline such as applied mathematics, computer science, data science, statistics or econometrics, OR An equivalent **Canadian academic credential assessment**, if		

Resource Category: I.1 Data Conversion Specialist (Cloud Data Scientist) – Level 3			
Name of proposed Resource: _____			
		Contractor's Response	
Criteria	**Mandatory Requirement**	**Demonstrated experience (Contractors to insert data)**	**Insert page # of resume**
	obtained outside Canada. The Contractor must include a copy of the degree(s).		

I.1 Data Conversion Specialist (Cloud Data Migrations)– Level 3

Resource Category: I.1 Data Conversion Specialist (Cloud Data Migrations) – Level 3			
Name of proposed Resource: _____			
		Contractor's Response	
Criteria	**Mandatory Requirement**	**Demonstrated experience (Contractors to insert data)**	**Insert page # of resume**
M10.1	The Contractor MUST demonstrate that the proposed resource has a minimum of five (5) years' experience within the last ten (10) years performing **all** of the following tasks: • Design, develop and administer significant (greater than 500 GB) DB2 databases; • Troubleshoot and optimize DB2 databases; and • Automate solutions for repeatable problems or maintenance activities. Note: To qualify, a project must have a minimum duration of six (6) months		
M10.2	The Contractor MUST demonstrate that the proposed resource has a minimum of five (5) years' experience within the last ten (10) years performing **all** of the following tasks: • Conduct exploratory data analysis on databases to understand and identify data quality issues prior to a significant upgrade or migration of database; • Determine problematic issues with data and data structures and present findings to stakeholders; and • Identify, test and develop solutions to data quality		

Resource Category: I.1 Data Conversion Specialist (Cloud Data Migrations) – Level 3

Name of proposed Resource: _____

Criteria	Mandatory Requirement	Contractor's Response	
		Demonstrated experience (Contractors to insert data)	Insert page # of resume
	problems or database performance issues. Note: To qualify, a project must have a minimum duration of six (6) months		
M10.3	The Contractor MUST demonstrate that the proposed resource has a minimum of five (5) years' experience within the last ten (10) years performing **all** of the following tasks: • Developing and planning data migration strategies for secure application migrations to the cloud; • Designing and building solutions, and using appropriate tools to migrate existing applications and their databases from an in-premise database environment to a secure cloud environment; • Developing data validation approach, test plan, scenarios and scripts, as necessary, to demonstrate completeness, integrity and security of the migrated data to the cloud; and • Performing post-migration activities. Note: To qualify, a project must have a minimum duration of six (6) months		
M10.4	The Contractor MUST demonstrate that the proposed resource has a minimum of two (2) years' experience within the last ten (10) years performing a minimum of four (4) of the following tasks: • Migrating mainframe databases to a UNIX or LINUX platform; • Designing, developing, or administering distributed databases; • Developing, testing and executing data cleansing solutions; • Developing scripts using bash, Perl and/or Python; and • Using ETL tools such as DataStage. Note: To qualify, a project must have a minimum duration of six (6) months		

C.11–Information Technology Security Vulnerability Analysis Specialist (Cloud) – Level 3

Resource Category: C.11 Information Technology Security Vulnerability Analysis Specialist (Cloud) – Level 3

Name of proposed Resource: _____

Criteria	Mandatory Requirement	Contractor's Response	
		Demonstrated experience (Contractors to insert data)	Insert page # of resume
M11.1	The Contractor MUST demonstrate that the Proposed Resource has a minimum of five (5) years' experience within the last ten (10) years conducting IT Security vulnerability assessments.		
M11.2	The Contractor MUST demonstrate that the proposed resource possesses a current professional certification from any of the following: CISSP from (ISC) CISM from ISACA CRISC from ISACA GIAC / Any Int/Adv Cyber Security certification GIAC / Any Int/Adv Cyber Defense certification GIAC / Any Penetration Testing Certification CEH (Certified Ethical Hacker) GICSP GWAPT GWEB CISA A copy of the Certification must be provided with the bid.		
M11.3	The Contractor MUST demonstrate that the Proposed Resource has experience in the past two (2) years performing Vulnerability Assessments and Penetration Testing for secure* public Cloud-based environments, services or solutions for five (5) different clients (separate legal entities) including **all** of the following activities: • Conducting an assessment of the assets and data involved including the business value in addition to the technology/technical configuration involved; • Conducting thorough vulnerability scans and penetration testing to identify vulnerabilities that may leave the organization or data open to threats or theft; • Using automated vulnerability assessment tools;		

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Criteria	Mandatory Requirement	Contractor's Response	
		Demonstrated experience (Contractors to insert data)	Insert page # of resume

	• Producing an actionable and prioritized list of deficiencies with explanations and technical recommendations; and
	• Preparing a summary report for management.
	
	Note: To qualify, a project must have a minimum duration of 20 days.
	
	* Secure is defined as designed to meet one of the following security control profiles:
	    ○ the Government of Canada Protected B Medium integrity Medium availability (PBMM).
	    ○ FEDRAMP Moderate or High Level
	    ○ ISO 27001, ISO 27017 and ISO 27018		

Resource Category: C.11 Information Technology Security Vulnerability Analysis Specialist (Cloud) – Level 3

Name of proposed Resource: _____

2.0   Point Rated Resource Assessment Criteria:

I.6 Network Analyst – Level 3

Resource Category: I.6 Network Analyst – Level 3

Name of proposed Resource: _____

#	Point-Rated Requirement	Points Max	Point Grid	Bidder's Response	
				Demonstrated Experience	Insert Page # of Resume
R1.1	The Contractor should demonstrate that the Proposed Resource has additional experience, in excess of the minimum M1.2 mandatory requirement of five (5) years, designing and architecting Infrastructure solutions leveraging cloud technologies and services	20	5+ years up to 6 years = 5 points 6+ years up to 7 years = 10 points 7+ years up to 8 years = 15 points More than 8 years = 20 points		

Resource Category: I.6 Network Analyst – Level 3

Name of proposed Resource: _____

#	Point-Rated Requirement	Points Max	Point Grid	Bidder's Response	
				Demonstrated Experience	Insert Page # of Resume
	including **all** the following: • ***Next Generation Firewalls*** • Virtual networks, subnets and User Defined Routing (UDR) • Multi-Protocol Label Switching • Security Groups • Application gateways and load balancing • Network failover • Containers • ***Elastic Computing*** • Storage and backup • Infrastructure as code Note: A qualifying project will have a minimum duration of six (6) months		Maximum 20 points		
R1.2	The Contractor should demonstrate that the Proposed Resource has additional experience in excess of the minimum M1.3 mandatory requirement of eighteen (18) months within the past five (5) years (prior to solicitation issue date) configuring, deploying, and supporting Virtual Networks, ***Next Generation Firewalls***, routing and security groups within a Production Cloud environment designed to meet any of the following security control profiles: • the Government of Canada Protected B Medium integrity Medium availability (PBMM) Profile	15	18+ months up to 2 years = 5 points 2+ years up to 3 years = 8 points 3+ years up to 4 years = 12 points More than 4 years = 15 points		

Resource Category: I.6 Network Analyst – Level 3

Name of proposed Resource: _____

#	Point-Rated Requirement	Points Max	Point Grid	Bidder's Response	
				Demonstrated Experience	Insert Page # of Resume
	• FEDRAMP Moderate or High Level • ISO 27001, ISO 27017 and ISO 27018 Note: A qualifying project will have a minimum duration of six (6) months				
R1.3	The Contractor should demonstrate that the Proposed Resource has Cloud experience within the last five (5) years performing the following tasks: • Exposed Virtual machines and cloud services in virtual networks to the Internet using an external load balance service. • Utilized Security Groups and Access Control List (ACLs) for incoming and outgoing packets • Designed User Defined Routes for specific cases to force tunneling to the Internet via an on-premise network. • Designed *BGP* routes to enable dedicated direct cloud connections (e.g. ExpressRoute / Direct connection) between an on-premise data center and a cloud environment. Note: A qualifying project will have a minimum duration of six (6) months	12	For each task: Less than 1 year = 0 points 1 year up to 3 years = 2 points More than 3 years = 3 points		

Resource Category: I.6 Network Analyst – Level 3				
Name of proposed Resource: _____				

#	Point-Rated Requirement	Points Max	Point Grid	Bidder's Response	
				Demonstrated Experience	Insert Page # of Resume
R1.4	The Contractor should demonstrate that the Proposed Resource has experience within the last 5 years (as of solicitation issue date) designing, deploying and supporting cloud network infrastructure and services hosted on Amazon Web Services. Note: A qualifying project will have a minimum duration of six (6) months	5	Less than 1 year = 0 points 1 year up to 2 years = 1 point 2+ years up to 3 years = 3 points More than 3 years = 5 points		
R1.5	The Contractor should demonstrate that the Proposed Resource has a current and valid Firewall Administrator certification from a ***Next Generation Firewall*** vendor (e.g. Cisco, Fortinet, Palo Alto, etc.). A copy of the certificate(s) should be provided with the bid.	5	No certificates = 0 points 1 or more Certificate(s) = 5 points		
R1.6	The Contractor should demonstrate that the Proposed Resource has: A university degree or post-secondary diploma in Computer Science or a related field in Information Technology, obtained through a recognized Canadian university or college; OR An equivalent ***Canadian academic credential assessment***, if obtained outside Canada. A copy of the university	5	No Degree/Diploma = 0 points Degree/Diploma = 5 points		

#	Point-Rated Requirement	Points Max	Point Grid	Bidder's Response	
				Demonstrated Experience	Insert Page # of Resume
	degree, college diploma or academic credential assessment WILL be included with the Contractor's response to the TA. The copy WILL be a readable copy in English or French.				
MAX. AVAILABLE POINTS		**62**			
MIN. POINTS REQUIRED		**40**			

I.7 Platform Analyst – Level 3

Resource Category: I.7 Platform Analyst – Level 3

Name of proposed Resource: _____

#	Point-Rated Requirement	Points Max	Point Grid	Bidder's Response	
				Demonstrated Experience	Insert Page # of Resume
R2.1	The Contractor should demonstrate that the Proposed Resource has: A university degree or post-secondary diploma in Computer Science or a related field in Information Technology, obtained through a recognized Canadian university or college; OR An equivalent ***Canadian academic credential assessment***, if obtained outside Canada. A copy of the university degree, college diploma or academic credential assessment WILL be included with the Contractor's response to the TA. The copy WILL be a readable copy in	5	No Degree/Diploma = 0 points Degree/Diploma = 5 points		

Resource Category: I.7 Platform Analyst – Level 3

Name of proposed Resource: _____

#	Point-Rated Requirement	Points Max	Point Grid	Bidder's Response	
				Demonstrated Experience	Insert Page # of Resume
	English or French.				
R2.2	The Contractor should demonstrate that the Proposed Resource has experience *implementing* one or more of the following security patterns within an IT solution: • System and method for generating and authenticating passwords using key inputs and contextual inputs • Method and system for authenticating a security device • Method and system for establishing trusted communication using a security device Note: A qualifying project will have a minimum duration of six (6) months	20	Up to 5 points per project for a maximum of 4 projects as follows: 1 pattern = 2 points 2 patterns = 4 points 3 patterns = 5 points		
R2.3	The Contractor should demonstrate that the Proposed Resource has: *Implementation* experience with at least 5 of the following technologies; • FIDO2 • Okta • Gluu • RSA encryption • Ping Identity • WSO2 • Auth0 • Google Duo • ForgeRock • Azure Active Directory • AWS Active Directory	20	Less than 5 technologies = 0 points 5 to 6 technologies = 10 points 7 to 8 technologies = 15 points 9 or more technologies = 20 points		

Resource Category: I.7 Platform Analyst – Level 3

Name of proposed Resource: _____

#	Point-Rated Requirement	Points Max	Point Grid	Bidder's Response	
				Demonstrated Experience	Insert Page # of Resume
	Note: A qualifying project will have a minimum duration of three (3) months				
R2.4	The Contractor should demonstrate that the Proposed Resource has experience developing and *implementing* cloud-based applications using one or both of the following: • Java • Node JS Note: A qualifying project will have a minimum duration of six (6) months	10	Less than 2 years = 0 points 2 years up to 3 years = 6 points 3+ years up to 5 years = 8 points More than 5 years = 10 points		
R2.5	The Contractor should demonstrate that the Proposed Resource has experience designing and *implementing Hybrid Cloud Enterprise* solutions. Note: A qualifying project will have a minimum duration of six (6) months	20	Less than 1 year = 0 points 1 year up to 3 years = 10 points 3+ years up to 5 years = 15 points More than 5 years = 20 points		
R2.6	The Contractor should demonstrate that the proposed resource has experience implementing and supporting solutions hosted on Amazon Web Services.	5	Less than 1 year = 0 points 1 year up to 2 years = 1 point 2+ years up to 3 years = 3 points More than 3 years = 5 points		
MAX. AVAILABLE POINTS		**80**			
MIN. POINTS REQUIRED		**52**			

I.9 System Administrator – Level 3

Resource Category: I.9 System Administrator – Level 3

Name of proposed Resource: _____

#	Point-Rated Requirement	Points Max	Point Grid	Bidder's Response	
				Demonstrated Experience	Insert Page # of Resume
R3.1	The Contractor should demonstrate that the Proposed Resource has: A university degree or post-secondary diploma in Computer Science or a related field in Information Technology, obtained through a recognized Canadian university or college; OR An equivalent **Canadian academic credential assessment**, if obtained outside Canada. A copy of the university degree, college diploma or academic credential assessment WILL be included with the Contractor's response to the TA. The copy WILL be a readable copy in English or French.	5	No Degree/Diploma = 0 points Degree/Diploma = 5 points		
R3.2	The Contractor should demonstrate that the Proposed Resource has experience within the last ten (10) years performing the following tasks in a Cloud environment: • Deploying and managing **Highly Available**, resilient cloud resources with no single points of failure; • Performing system hardening on newly provisioned environments; • Developing and utilizing automation techniques to allocate additional resources as and when needed; and • Designing and	20	For each task: Less than 1 year = 0 points 1 year up to 2 years = 1 point 2+ years up to 4 years = 2 points 4+ years up to 6 years = 3 points 6+ years up to 7 years = 4 points More than 7 years = 5 points		

Resource Category: I.9 System Administrator – Level 3

Name of proposed Resource: _____

#	Point-Rated Requirement	Points Max	Point Grid	Bidder's Response	
				Demonstrated Experience	Insert Page # of Resume
	implementing a tiered backup and restore strategy for data of varying values to the organization. Note: A qualifying project will have a minimum duration of six (6) months				
R3.3	The Contractor should demonstrate that the Proposed Resource has experience within the last ten (10) years managing system resources using VMWare products.	10	Less than2 years = 0 points 2+ years up to 5 years = 5 points 5+ years up to 8 years = 7 points More than 8 years = 10 points		
R3.4	The Contractor should demonstrate that the Proposed Resource has experience developing, testing, maintaining and executing automated provisioning and rebuild procedures for Cloud application resources. Note: A qualifying project will have a minimum duration of six (6) months	10	Less than 2 years = 0 points 2+ years up to 5 years = 5 points 5+ years up to 8 years = 7 points More than 8 years =10 points		
R3.5	The Contractor should demonstrate that the Proposed Resource has any of the following Associate-level certifications: • Microsoft Certified Azure Administrator Associate OR Microsoft 365 Certified Security Administrator Associate OR MCSE Cloud	10	No Certification = 0 points 1 Certification = 5 points 2 Certifications or more = 10 points		

Resource Category: I.9 System Administrator – Level 3					
Name of proposed Resource: _____					
#	Point-Rated Requirement	Points Max	Point Grid	Bidder's Response	
				Demonstrated Experience	Insert Page # of Resume
	Platforms and Infrastructure • AWS Certified SysOps Administrator Associate • Associate Cloud Engineer (GCP) A copy of the certificate(s) should be provided.				
	MAX. AVAILABLE POINTS	55			
	MIN. POINTS REQUIRED	35			

I.10 Technical Architect (Cloud Security) – Level 3

Resource Category: I.10 Technical Architect (Cloud Security) – Level 3					
Name of proposed Resource: _____					
#	Point-Rated Requirement	Points Max	Point Grid	Bidder's Response	
				Demonstrated Experience	Insert Page # of Resume
R4.1	The Contractor should demonstrate that the Proposed Resource has: A university degree or post-secondary diploma in Computer Science or a related field in Information Technology, obtained through a recognized Canadian university or college; OR An equivalent *Canadian academic credential assessment*, if obtained outside Canada. A copy of the university degree, college diploma or academic credential assessment WILL be included with the Contractor's response to the TA. The copy	10	No Degree/Diploma = 0 points Degree/Diploma = 10 points		

Resource Category: I.10 Technical Architect (Cloud Security) – Level 3

Name of proposed Resource: _____

#	Point-Rated Requirement	Points Max	Point Grid	Bidder's Response	
				Demonstrated Experience	Insert Page # of Resume
	WILL be a readable copy in English or French.				
R4.2	The Contractor should demonstrate that the Proposed Resource has additional experience in excess of M4.2 minimum 5 years mandatory requirement, including 3 years in a Cloud environment, performing the following tasks: • Defining Technical and Functional security requirements; • Creating Security Architecture; • Participating in Infrastructure and Application Architecture Reviews; • Participating in Infrastructure and Application Design Reviews; and • Performing IT Certification or Assessment activities Note: A qualifying project will have a minimum duration of three (3) months	20	5+ years up to 7 years = 8 points 7+ years up to 8 years = 14 points More than 8 years = 20 points		
R4.3	The Contractor should demonstrate that the Proposed Resource has experience preparing Threat & Risk Assessments on Cloud-based applications for government projects/initiatives involving any of the following: • Biometric identification • Multi-factor authentication, secure enclave processing	25	1 project = 5 points 2 projects = 10 points 3 projects = 15 points 4 projects = 20 points 5+ projects = 25		

Resource Category: I.10 Technical Architect (Cloud Security) – Level 3

Name of proposed Resource: _____

#	Point-Rated Requirement	Points Max	Point Grid	Bidder's Response	
				Demonstrated Experience	Insert Page # of Resume
	• Mobile device-based multi factor authentication • Cloud-based Identity Access Management • Artificial Intelligence or Machine Learning • Robotic Process Automation • *Analytic Pipelines* Note: A qualifying project will have a minimum duration of two (2) months.		points		
R4.4	The Contractor should demonstrate that the Proposed Resource has experience completing Security assessments of infrastructure or applications within Microsoft Azure, AWS or GCP cloud environments Note: A qualifying assessment will have a minimum duration of two (2) months.	20	2 points per assessment up to maximum of 10 assessments		
R4.5	The Contractor should demonstrate that the Proposed Resource has experience designing architecture, applications or infrastructure incorporating security controls according to OWASP recommendations. Note: A qualifying project will have a minimum duration of six (6) months	20	Less than 1 year = 0 points 1 year up to 3 years = 5 points 3+ years up to 5 years = 10 points 5+ years up to 7 years = 15 points More than 7 years = 20 points		
MAX. AVAILABLE POINTS		**95**			
MIN. POINTS REQUIRED		**61**			

I.11 Technology Architect – Level 3

Resource Category: I.11 Technology Architect – Level 3

Name of proposed Resource: _____

#	Point-Rated Requirement	Points Max	Point Grid	Bidder's Response	
				Demonstrated Experience	Insert Page # of Resume
R5.1	The Contractor should demonstrate that the Proposed Resource has: A university degree or post-secondary diploma in Computer Science or a related field in Information Technology, obtained through a recognized Canadian university or college; OR An equivalent **Canadian academic credential assessment**, if obtained outside Canada. A copy of the university degree, college diploma or academic credential assessment WILL be included with the bid. The copy WILL be a readable copy in English or French.	10	No Degree/Diploma = 0 points Degree/Diploma = 10 points		
R5.2	The Contractor should demonstrate that the Proposed Resource has experience performing the following tasks supporting Legacy-to-Cloud application migration projects: • Collecting relevant data on customer's existing applications including: architecture, workloads, services, data volumes, users, support requirements, network and other infrastructure requirements; • Conducting cloud assessments and analysis of workloads and services to	30	10 points per project up to maximum of 3 projects (30 points)		

#	Point-Rated Requirement	Points Max	Point Grid	Bidder's Response	
				Demonstrated Experience	Insert Page # of Resume

Resource Category: I.11 Technology Architect – Level 3

Name of proposed Resource: _____

#	Point-Rated Requirement	Points Max	Point Grid	Demonstrated Experience	Insert Page # of Resume
	determine which workloads are good candidates for migration; • Mapping source environment resources/services to target resources/services; • Defining and designing appropriate to-be application, platforms, and hosting architectures in public/private clouds; • Designing cloud architecture that meets key non-functional requirements (security, compliance, performance, resiliency, and availability); • Overseeing the migration of workloads and capabilities (e.g. Disaster recovery, archiving/backup) to cloud; and • Leveraging cloud specific services (e.g. Web Application PaaS, Resource Manager, etc.) to *implement* desired cloud operating models and enable DevOps capabilities. Note: A qualifying project will have a minimum duration of nine (9) months and contain completion of at least three of the listed tasks.				
R5.3	The Contractor should demonstrate that the Proposed Resource has experience with large or complex* data migrations including five or more of the following: • Developing the strategy	20	5 to 6 tasks = 5 points 7 to 8 tasks = 10 points Plus 10 points for the number of		

Resource Category: I.11 Technology Architect – Level 3

Name of proposed Resource: _____

#	Point-Rated Requirement	Points Max	Point Grid	Bidder's Response	
				Demonstrated Experience	Insert Page # of Resume
	• Creating the plan • Analyzing data quality • Resolving data issues • Validating accuracy, performance, accessibility, security and reliability • Loading • Switch-over • Optimization * Large or complex describes a database that contains a significant volume of data (more than 250 GB) or a broad data structure with many relationships defined to the point that queries and normal operations require specialized application and database optimization approaches. Note: A qualifying project will have a minimum duration of six (6) months		years of experience as follows: 1 year up to 3 years = 2 points 3+ years up to 4 years = 5 points 4+ years up to 5 years = 8 points More than 5 years = 10 points		
R5.4	The Contractor should demonstrate that the Proposed Resource has experience architecting and migrating on-premise **Enterprise-class** applications to an environment hosted on one of the Gartner 2019 Magic Quadrant for IaaS cloud platforms (AWS, Azure or Google) using a **Hybrid cloud** deployment model. Note: A qualifying project will have a minimum duration of six (6) months	15	1 project = 3 points 2 projects = 6 points 3 projects = 10 points 4 or more projects = 15 points		
R5.5	The Contractor should demonstrate that the Proposed Resource has experience with one of the following activities	5	0 projects = 0 points 1+ project = 5		

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Resource Category: I.11 Technology Architect – Level 3					
Name of proposed Resource: _____					
#	Point-Rated Requirement	Points Max	Point Grid	Bidder's Response	
				Demonstrated Experience	Insert Page # of Resume
	and tasks in a Cloud environment: • Designing data warehousing as a service solutions • Designing data lakes that scale with ingested data but also discard data due to low value or if it contravenes policy to retain it Note: A qualifying project will have a minimum duration of twelve (12) months		points		
MAX. AVAILABLE POINTS		80			
MIN. POINTS REQUIRED		52			

B.2 Business Architect – Level 3

Resource Category: B.2 Business Architect – Level 3					
Name of proposed Resource: _____					
#	Point-Rated Requirement	Points Max	Point Grid	Bidder's Response	
				Demonstrated Experience	Insert Page # of Resume
R6.1	The Contractor should demonstrate that the Proposed Resource has experience within the last ten (10) years supporting initiatives by: • Assessing transformation initiative impacts on job roles and organization structures; AND • Making recommendations as to the best use of public	20	Less than 5 years = 0 points 5 years up to 6 years = 8 points 6+ years up to 7 years = 12 points 7+ years up to 8 years = 16 points More than 8 years = 20 points		

#	Point-Rated Requirement	Points Max	Point Grid	Bidder's Response	
				Demonstrated Experience	Insert Page # of Resume
	funds Note: A qualifying project will have a minimum duration of six (6) months				
R6.2	The Contractor should demonstrate that the Proposed Resource has experience within the last ten (10) leading* Agile or Digital Transformation initiatives within a **public sector organization**. *Leading – Defined as the person in charge of the day to day activities of the project. Note: A qualifying project will have a minimum duration of six (6) months	20	1 project = 10 points 2 projects = 15 points 3+ projects = 20 points		
R6.3	The Contractor should demonstrate that the proposed resource has: One (1) of the following certifications: • Agile (Scrum.org, Agile Alliance, PMI) • Change Management (PROSCII, Six Sigma, CCMP, ACMP) A copy of the Certification will be provided	10	0 certification = 0 points 1 or more certifications = 10 points		
R6.4	The Contractor should demonstrate that the proposed resource has: A post-graduate degree, post-graduate diploma, post-graduate certificate or industry	10	0 document = 0 points 1 or more degree, diploma or certificate = 10 points		

Resource Category: B.2 Business Architect – Level 3

Name of proposed Resource: _____

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#	Point-Rated Requirement	Points Max	Point Grid	Bidder's Response	
				Demonstrated Experience	Insert Page # of Resume

Resource Category: B.2 Business Architect – Level 3

Name of proposed Resource: _____

#	Point-Rated Requirement	Points Max	Point Grid	Demonstrated Experience	Insert Page # of Resume
	certification related to Business Architecture (not used for any other criteria); OR

An equivalent **Canadian academic credential assessment**, if obtained outside Canada.

A copy of the post-graduate degree, diploma, certificate or academic credential assessment WILL be included with the Contractor's response to the TA. The copy WILL be a readable copy in English or French. | | | | |
| **MAX. AVAILABLE POINTS** | | **60** | | | |
| **MIN. POINTS REQUIRED** | | **39** | | | |

A.1 Application/Software Architect (Cloud Solutions) – Level 3

Resource Category: A.1 Application/Software Architect (Cloud Solutions) – Level 3

Name of proposed Resource: _____

#	Point-Rated Requirement	Points Max	Point Grid	Bidder's Response	
				Demonstrated Experience	Insert Page # of Resume
R7.1	The Contractor should demonstrate that the Proposed Resource has:

A university degree or post-secondary diploma in Computer Science or a related field in Information Technology, obtained through a recognized Canadian university or college; OR

An equivalent **Canadian** | 10 | No Degree/Diploma = 0 points

Degree/Diploma = 10 points | | |

Resource Category: A.1 Application/Software Architect (Cloud Solutions) – Level 3

Name of proposed Resource: _____

#	Point-Rated Requirement	Points Max	Point Grid	Bidder's Response	
				Demonstrated Experience	Insert Page # of Resume
	academic credential assessment, if obtained outside Canada. A copy of the university degree, college diploma or academic credential assessment WILL be included with the Contractor's response to the TA. The copy WILL be a readable copy in English or French.				
R7.2	The Contractor should demonstrate that the Proposed Resource has experience in excess of the minimum five (5) years within the last ten (10) years mandatory requirement in M7.3 performing the following tasks within a public cloud environment: • Creating the conceptual, logical and physical designs for application architectures and their interoperability; • Researching, analyzing, recommending and selecting technical approaches to address challenging development and integration problems with application architectures; and • Developing implementation plans for the deployment of application architectures Note: A qualifying project will have a minimum duration of six (6) months	**20**	5+ years up to 6 years = 5 points 6+ years up to 7 years = 10 points 7+ years up to 8 years = 15 points More than 8 years = 20 points		
R7.3	The Contractor should demonstrate that the Proposed Resource has experience	**15**	For each activity: Less than 1 year		

Resource Category: A.1 Application/Software Architect (Cloud Solutions) – Level 3

Name of proposed Resource: _____

#	Point-Rated Requirement	Points Max	Point Grid	Bidder's Response	
				Demonstrated Experience	Insert Page # of Resume
	within the last twelve (12) years as an Application/Software Architect performing the following activities: • Developing deployment strategies for architectures in the cloud that included secure remote access such as VPN gateways (client to gateway, gateway to gateway); • Developing deployment strategies for cloud architectures that included private (on-premise) networks for the storage and processing of more sensitive data; • Developing deployment strategies for architectures of re-usable environments designed to test new data or application operations without affecting production usage. Note: A qualifying project will have a minimum duration of six (6) months		= 0 points 1 year up to 3 years = 2 points 3+ years up to 5 years = 4 points More than 5 years = 5 points		
R7.4	The Contractor should demonstrate that the Proposed Resource has experience within the last twelve (12) years as an Application / Software Architect performing the following activities: • Incorporating serverless code in application architectures; • Designing scaling sets of virtual machines to keep costs low while still	20	For each activity: Less than 1 year = 0 points 1 year up to 3 years = 2 points 3+ years up to 5 years = 4 points More than 5 years = 5 points		

Resource Category: A.1 Application/Software Architect (Cloud Solutions) – Level 3

Name of proposed Resource: _____

#	Point-Rated Requirement	Points Max	Point Grid	Bidder's Response	
				Demonstrated Experience	Insert Page # of Resume
	providing acceptable response times during peak usage; • Designing cloud-based authentication solutions allowing for single sign-on (SSO) among applications; and • Designing cloud-based authentication solutions that implement multi-factor authentication. Note: A qualifying project will have a minimum duration of six (6) months				
R7.5	The Contractor should demonstrate that the Proposed Resource has experience within the last twelve (12) years as an Application/Software Architect performing any of the following tasks: • Developing deployment strategies for business intelligence tools within cloud architecture that address both structured and unstructured data; • Designing data warehouse-as-a-service solutions; • Designing data lakes that scale with ingested data but also discard data due to low value or if it contravenes policy to retain it Note: A qualifying project will have a minimum duration of twelve (12) months	5	0 projects = 0 points 1+ project = 5 points		

Resource Category: A.1 Application/Software Architect (Cloud Solutions) – Level 3				
Name of proposed Resource: _____				
#	**Point-Rated Requirement**	**Points Max**	**Point Grid**	**Bidder's Response**	
				Demonstrated Experience	**Insert Page # of Resume**
MAX. AVAILABLE POINTS		**70**			
MIN. POINTS REQUIRED		**45**			

A.7 Programmer/Analyst (Cloud Solutions) – Level 3

Resource Category: A.7 Programmer/Analyst (Cloud Solutions) – Level 3				
Name of proposed Resource: _____				
#	**Point-Rated Requirement**	**Points Max**	**Point Grid**	**Bidder's Response**	
				Demonstrated Experience	**Insert Page # of Resume**
R8.1	The Contractor should demonstrate that the proposed resource has experience, in excess of the minimum 5 years mandatory requirement in M8.1, designing, developing, testing and deploying code and software for a cloud computing environment. Note: A qualifying project will have a minimum duration of six (6) months	**20**	5+ years to 6 years = 12 points 6+ years to 7 years = 16 points More than 7+ years = 20 points		
R8.2	The Contractor should demonstrate that the proposed resource has: One (1) of the following certifications applicable to Infrastructure as a Service (IaaS) platforms from one or more Leaders in the Gartner 2019 Magic Quadrant for IaaS Cloud (i.e. AWS, Azure, or Google): • AWS Certified Developer • Azure Developer Associate	**10**	0 Certifications = 0 points 1 or more Certifications = 10 points		

Resource Category: A.7 Programmer/Analyst (Cloud Solutions) – Level 3

Name of proposed Resource: _____

#	Point-Rated Requirement	Points Max	Point Grid	Bidder's Response	
				Demonstrated Experience	**Insert Page # of Resume**
	• Google Professional Cloud Developer Note: A copy of the certification should be provided.				
R8.3	The Contractor should demonstrate that the proposed resource has experience designing, developing, testing and deploying code and software for one or more of the following types of solution projects: • Mobile computing • Artificial Intelligence or Machine Learning • Robotic process automation • Biometrics • Analytic Pipelines Note: A qualifying project will have a minimum duration of twelve (12) months Projects should be fully described including the platform, technology and specific features/functionalities (high-level) deployed.	6	0 projects = 0 points 1 project = 2 points 2 projects = 4 points 3+ projects = 6 points		
R8.4	The Contractor should demonstrate that the proposed resource has experience designing, developing, testing and deploying code and software for web-based solutions including the following:	15	Less than 3 years = 0 points 3 years up to 4 years = 10 points 4+ years up to 5 years = 12 points		

#	Point-Rated Requirement	Points Max	Point Grid	Bidder's Response	
				Demonstrated Experience	Insert Page # of Resume
	• back-end and web-tier components for data collected externally (to the organization) and/or internally; • application code to process the data in some manner • security controls Note: A qualifying project will have a minimum duration of six (6) months. Projects should be described including the architecture, data collected (including source/method) and processing functionality (ies) deployed.		More than 5 years = 15 points		
R8.5	The Contractor should demonstrate that the proposed resource has experience designing, developing and implementing web-based applications using the following languages: • Python, • Vue JS, • Angular Note: A qualifying project will have a minimum duration of six (6) months	15	Points will be allocated per language as follows: Less than 2 years = 0 points 2 years up to 3 years = 2 points 3+ years up to 4 years = 3 points 4+ years up to 5 years = 4 points More than 5 years = 5 points		
R8.6	The Contractor should demonstrate that the proposed resource has experience in *reverse*	5	Less than 1 year = 0 points More than 1 year		

Resource Category: A.7 Programmer/Analyst (Cloud Solutions) – Level 3

Name of proposed Resource: _____

Resource Category: A.7 Programmer/Analyst (Cloud Solutions) – Level 3

Name of proposed Resource: _____

#	Point-Rated Requirement	Points Max	Point Grid	Bidder's Response	
				Demonstrated Experience	Insert Page # of Resume
	engineering legacy software applications created in one or more of the following: • COBOL (Mainframe) • C/C++ • J2EE Note: A qualifying project will have a minimum duration of six (6) months.		= 5 points		
R8.7	The Contractor should demonstrate that the proposed resource has experience developing and deploying applications using AWS Developer tools.	4	Less than 1 year = 0 points 1 year up to 3 years = 2 points More than 3 years = 4 points		
R8.8	The Contractor should demonstrate that the Proposed Resource has: A university degree or post-secondary diploma in Computer Science or a related field in Information Technology, obtained through a recognized Canadian university or college; OR An equivalent *Canadian academic credential assessment*, if obtained outside Canada. A copy of the university degree, college diploma or academic credential assessment WILL be included with the Contractor's response to the TA. The copy WILL be a readable copy in English or French.	5	No Degree/Diploma = 0 points Degree/Diploma = 5 points		

Resource Category: A.7 Programmer/Analyst (Cloud Solutions) – Level 3				
Name of proposed Resource: _____				
#	**Point-Rated Requirement**	**Points Max**	**Point Grid**	**Bidder's Response**
				Demonstrated Experience	**Insert Page # of Resume**
MAX. AVAILABLE POINTS		**80**			
MIN. POINTS REQUIRED		**52**			

I.1 Data Conversion Specialist (Cloud Data Scientist)– Level 3

Resource Category: I.1 Data Conversion Specialist (Cloud Data Scientist)– Level 3					
Name of proposed Resource: _____					
#	**Point-Rated Requirement**	**Points Max**	**Point Grid**	**Bidder's Response**	
				Demonstrated Experience	**Insert Page # of Resume**
R9.1	The Contractor should demonstrate that the proposed resource has experience in excess of the mandatory minimum 5 years requirement in M9.1 performing all of the following activities: • Using methodologies from Machine Learning, Deep Learning and Artificial Intelligence; • Applying Machine Learning using diverse types of data, diverse data sources and different types of learning models. • Developing queries to isolate data with high value within a Data Warehouse, Data Mart or Data Lake; • Performing exploratory data analysis, rapid prototyping and presenting creative ideas to exploit data to drive deeper insights and business value;	20	5+ years up to 6 years = 5 points 6+ years up to 7 years = 10 points 7+ years up to 8 years = 15 points More than 8 years = 20 points		

Resource Category: I.1 Data Conversion Specialist (Cloud Data Scientist)– Level 3

Name of proposed Resource: _____

#	Point-Rated Requirement	Points Max	Point Grid	Bidder's Response	
				Demonstrated Experience	Insert Page # of Resume
	• Providing proactive data analysis of large structured and unstructured datasets involving a wide range of systems across multiple disparate data sets; and • Developing data analytic / visualization plans to support high-quality, fact-based business decisions Note: A qualifying project will have a minimum duration of six (6) months				
R9.2	The Contractor should demonstrate that the proposed resource has experience in excess of the mandatory minimum 5 years requirement in M9.2 performing five or more of the following activities: • Working with scalable data platforms such as; Power BI, Hadoop, Spark, Redshift, NoSQL (dynamoDB / MongoDB); • Building the tools and supporting data structures needed to analyze data and perform data cleansing activities; • Determining problematic issues with data and proposing feasible resolutions; • Organizing, mapping, analyzing numerous data sets to incorporate them into one centralized data repository; • Performing exploration of	20	5+ years up to 6 years = 5 points 6+ years up to 7 years = 10 points 7+ years up to 8 years = 15 points More than 8 years = 20 points		

Resource Category: I.1 Data Conversion Specialist (Cloud Data Scientist)– Level 3

Name of proposed Resource: _____

#	Point-Rated Requirement	Points Max	Point Grid	Bidder's Response	
				Demonstrated Experience	Insert Page # of Resume
	data, including analysis, mining of correlations and result verification; • Developing and deploying solutions that addressed data aggregation challenges, including data being distributed across numerous databases or sources; and • Developing and implementing strategies for data enrichment Note: A qualifying project will have a minimum duration of six (6) months.				
R9.3	The Contractor should demonstrate that the proposed resource has experience within the last ten (10) years developing and testing custom algorithms and mathematical models as required to solve unique business challenges: Note: A qualifying project will have a minimum duration of six (6) months.	20	Less than 2 years = 0 points 2 years up to 5 years = 5 points 5+ years up to 6 years = 10 points 6+ years up to 7 years = 15 points More than 7 years = 20 points		
R9.4	The Contractor should demonstrate that the proposed resource has experience within the last ten (10) years performing the following tasks: • Developing strategies to develop and filter data sets related to macroeconomic models	20	Less than 2 years = 0 points 2 years up to 5 years = 5 points 5+ years up to 6 years = 10 points 6+ years up to 7 years = 15 points		

Resource Category: I.1 Data Conversion Specialist (Cloud Data Scientist)– Level 3

Name of proposed Resource: _____

#	Point-Rated Requirement	Points Max	Point Grid	Bidder's Response	
				Demonstrated Experience	Insert Page # of Resume
	within Data Lakes; and • Developing visualizations relating to macroeconomic models. Note: A qualifying project will have a minimum duration of six (6) months.		More than 7 years = 20 points		
R9.5	The Contractor should demonstrate that the proposed resource has experience within the last ten (10) years performing the following tasks: • Developing strategies to develop and filter large (greater than 250GB) data sets for reports and analysis; • Designing data transformation routines to be performed on data sources being ingested; and • Performing data extract and load operations as required Note: A qualifying project will have a minimum duration of six (6) months.	20	Less than 2 years = 0 points 2+ years up to 5 years = 5 points 5+ years up to 6 years = 10 points 6+ years up to 7 years = 15 points More than 7 years = 20 points		
R9.6	The Contractor should demonstrate that the proposed resource has completed or obtained: A post-graduate diploma, post-graduate certificate or industry certification related to	10	No diploma/certificate = 0 points 1+ post-graduate diploma/certificate = 10 points		

Resource Category: I.1 Data Conversion Specialist (Cloud Data Scientist)– Level 3

Name of proposed Resource: _____

#	Point-Rated Requirement	Points Max	Point Grid	Bidder's Response	
				Demonstrated Experience	Insert Page # of Resume
	any of the following: - Data Science; - Machine Learning - Artificial Intelligence - Natural Language Programming The Contractor should include a copy of the diploma(s) or certificate(s).				
MAX. AVAILABLE POINTS		**110**			
MIN. POINTS REQUIRED		**71**			

I.1 Data Conversion Specialist (Cloud Data Migrations)– Level 3

Resource Category: I.1 Data Conversion Specialist (Cloud Data Migrations)– Level 3

Name of proposed Resource: _____

#	Point-Rated Requirement	Points Max	Point Grid	Bidder's Response	
				Demonstrated Experience	Insert Page # of Resume
R10.1	The Contractor should demonstrate that the Proposed Resource has: A university degree or post-secondary diploma in Computer Science or a related field in Information Technology, obtained through a recognized Canadian university or college; OR An equivalent *Canadian academic credential assessment*, if obtained outside Canada. A copy of the university	5	No Degree/Diploma = 0 points Degree/Diploma = 5 points		

Resource Category: I.1 Data Conversion Specialist (Cloud Data Migrations)– Level 3

Name of proposed Resource: _____

#	Point-Rated Requirement	Points Max	Point Grid	Bidder's Response	
				Demonstrated Experience	Insert Page # of Resume
	degree, college diploma or academic credential assessment WILL be included with the Contractor's response to the TA. The copy WILL be a readable copy in English or French.				
R10.2	The Contractor should demonstrate that the Proposed Resource has experience architecting and migrating **Production** data into a cloud environment designed to meet any of the following security control profiles: • the Government of Canada Protected B Medium integrity Medium availability (PBMM) Profile. • FEDRAMP Moderate or High Level • ISO 27001, ISO 27017 and ISO 27018 Note: A qualifying project will have a minimum duration of six (6) months	20	Less than 1 year = 0 points 1 year up to 3 years = 8 points 3+ years up to 4 years = 14 points More than 4 years = 20 points		
R10.3	The Contractor should demonstrate that the Proposed Resource has: One or more of the following certifications: • Azure Solutions Architect Expert • Amazon Solutions Architect Associate • Professional Cloud Architect (GCP)	10	0 certification = 0 points 1 or more certifications = 10 points		

Resource Category: I.1 Data Conversion Specialist (Cloud Data Migrations)– Level 3

Name of proposed Resource: _____

#	Point-Rated Requirement	Points Max	Point Grid	Bidder's Response	
				Demonstrated Experience	Insert Page # of Resume
	A copy of the certificate(s) should be provided.				
R10.4	The Contractor should demonstrate that the Proposed Resource has additional experience, in excess of the minimum of five (5) years of demonstrated experience as per Mandatory Criteria M10.3, performing all of the following tasks: • Developing and planning data migration strategies for secure application migrations to the cloud; • Designing and building solutions and/or use appropriate tools to migrate existing applications and their databases from an in-premise database environment to a secure cloud environment; • Developing data validation approach, test plan, scenarios and scripts as necessary to demonstrate completeness, integrity and security of the migrated data to the cloud; and • Performing post-migration activities. Note: A qualifying project will have a minimum duration of six (6) months	20	5+ years up to 6 years = 12 points 6+ years up to 7 years = 16 points More than 7 years = 20 points		
R10.5	The Contractor should demonstrate that the proposed	8	Less than 1 year		

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#	Point-Rated Requirement	Points Max	Point Grid	Bidder's Response	
				Demonstrated Experience	Insert Page # of Resume
	resource has experience using AWS online and offline Data Migration tools.		= 0 points 1 year up to 3 years = 2 points 3+ years up to 4 years = 4 points 4+ years up to 5 years = 6 points More than 5 years = 8 points		
MAX. AVAILABLE POINTS		**63**			
MIN. POINTS REQUIRED		**40**			

Resource Category: I.1 Data Conversion Specialist (Cloud Data Migrations)– Level 3

Name of proposed Resource: _____

C.11 Information Technology Security Vulnerability Analysis Specialist (Cloud) – Level 3

Resource Category: C.11 Information Technology Security Vulnerability Analysis Specialist (Cloud) – Level 3

Name of proposed Resource: _____

#	Point-Rated Requirement	Points Max	Point Grid	Bidder's Response	
				Demonstrated Experience	Insert Page # of Resume
R11.1	The Contractor should demonstrate that the Proposed Resource has system administrative, design, development or support experience in the following areas: • Public Cloud Infrastructure • Secure Application Development • Virtual Networking	10	For each area: Less than 1 year = 0 points More than 1 year = 2 points		

Resource Category: C.11 Information Technology Security Vulnerability Analysis Specialist (Cloud) – Level 3

Name of proposed Resource: _____

#	Point-Rated Requirement	Points Max	Point Grid	Bidder's Response	
				Demonstrated Experience	Insert Page # of Resume
	• Big Data • Cloud Security Note: A qualifying project will have a minimum duration of six (6) months and can be used to demonstrate more than one area.				
R11.2	The Contractor should demonstrate that the Proposed Resource has experience analyzing security event logs from operating systems, intrusion detection systems, network, and remote access solutions Note: A qualifying project will have a minimum duration of three (3) months	10	Less than 1 year = 0 points 1 year up to 3 years = 2 points 3+ years up to 5 years = 5 points More than 5 years = 10 points		
R11.3	The Contractor should demonstrate that the Proposed Resource has experience testing web and/or mobile application security for the **OWASP Top 10** Most Critical Application Security Risks and providing assistance and guidance to developers to ensure a high level of application security. Note: A qualifying project will have a minimum duration of three (3) months	20	Less than 1 year = 0 points 1 year up to 3 years = 10 points 3+ years up to 5 years = 15 points More than 5 years = 20 points		
R11.4	The Contractor should demonstrate that the Proposed Resource has experience performing Vulnerability Assessments and Penetration Testing for public Cloud-based	30	3 points per project		

<table>
<tr><td colspan="6">Resource Category: C.11 Information Technology Security Vulnerability Analysis Specialist (Cloud) – Level 3

Name of proposed Resource: _____</td></tr>
</table>

#	Point-Rated Requirement	Points Max	Point Grid	Bidder's Response	
				Demonstrated Experience	Insert Page # of Resume
	environments, services or solutions including the following activities: • Conducting thorough vulnerability scans and penetration testing to identify vulnerabilities that may leave the organization or data open to threats or theft; and • Producing an actionable and prioritized list of deficiencies with explanations and technical recommendations Note: A qualifying project will have a minimum duration of 20 days.				
R11.5	The Contractor should demonstrate that the Proposed Resource has: A university degree or post-secondary diploma in Computer Science or a related field in Information Technology, obtained through a recognized Canadian university or college; OR An equivalent *Canadian academic credential assessment*, if obtained outside Canada. A copy of the university degree, college diploma or academic credential assessment WILL be included with the Contractor's	10	No Degree/Diploma = 0 points Degree/Diploma = 10 points		

Resource Category: C.11 Information Technology Security Vulnerability Analysis Specialist (Cloud) – Level 3

Name of proposed Resource: _____

#	Point-Rated Requirement	Points Max	Point Grid	Bidder's Response	
				Demonstrated Experience	Insert Page # of Resume
	response to the TA. The copy WILL be a readable copy in English or French.				
MAX. AVAILABLE POINTS		**80**			
MIN. POINTS REQUIRED		**52**			

AT ATTACHMENT 4.2 - POINT-RATED TECHNICAL CRITERIA

CORPORATE RATED REQUIREMENTS:

DELETE:

CR#	Rated Technical Criteria	Maximum Points	Points Allocation	Bidder's Response
CR1	The Bidder should demonstrate its experience and understanding of the public-cloud space as it relates to the Government of Canada by providing an example of a public-cloud migration roadmap (a linear representation of detailed activities over time) that was delivered within the past three years (prior to solicitation issue date) to any Canadian public sector organization* OR to a federal-level government Department or Agency for one of the Border Five** countries supporting its move to public-cloud infrastructure. * public sector organization is defined as any Department, Agency or Crown Corporation of the Canadian Federal Government, Canadian Provincial Governments,	**32**	4 points for each demonstrated characteristic described below No demonstration = 0 points 1. Roadmap includes the client's high-level strategic objectives or business case for migration to the public cloud services. 2. Roadmap includes a High-level analysis of the current and future state of the client's application workloads and cloud capabilities; 3. Roadmap includes an indication of the challenges in terms of workloads, data	

CR#	Rated Technical Criteria	Maximum Points	Points Allocation	Bidder's Response

	and Canadian Municipal governments (representing Pop. 1+ Million).
	
	** Border Five countries include: Canada, United States, United Kingdom, Australia and New Zealand.
	
	The roadmap should include:
	
	• High-level activities to be undertaken as part of the cloud adoption and migration strategy in the organization;
	
	• Activities occur over a timeline (minimum of three (3) years) and are broken down into at least three (3) implementation phases with the ultimate goal of achieving a cloud-optimized government department or agency;
	
	• Activities grouped into a minimum of five (5) strategic areas, such as:
	   o Governance
	   o Workforce
	   o Technology
	   o Operations
	   o Security
	
	The following information should be provided with the Roadmap using the Form CR1.
	
	1. The name of the client organization;
	2. The Contract number or reference number(s), i.e. Task Authorization(s), Purchase Order(s), etc;
			and critical services;
			
			4. Roadmap includes the incremental steps that must be taken to transition to the future state;
			
			5. Roadmap includes prioritization, milestones, timelines, high-level effort and cost estimates;
			
			6. Roadmap addresses at least five (5) strategic areas;
			
			7. Roadmap suggests tools and competencies that are available or must be acquired.
			
			8. Roadmap indicates an estimation of the economies and business value in the recommended approach
			
			OR, alternatively:
			
			• A letter signed by the client (or email with signature) confirming that the Public-Cloud Migration Roadmap cannot be shared with the CBSA by reason of Intellectual Property ownership or Sensitivity of the information AND checking off which of the following areas they fully agree were addressed in the delivered Roadmap:
			o Roadmap includes the client's high-level strategic objectives or business case for migration to the public cloud services.
			o Roadmap includes a High-level analysis of the current and future	

CR#	Rated Technical Criteria	Maximum Points	Points Allocation	Bidder's Response
	3. The start and completion dates of the Contract; 4. The Project title; 5. Contact information for the reference person at the client organization: Name, title, telephone number, and email address.		state of the client's application workloads and cloud capabilities; o Roadmap includes an indication of the challenges in terms of workloads, data and critical services; o Roadmap includes the incremental steps that must be taken to transition to the future state; o Roadmap includes prioritization, milestones, timelines, high-level effort and cost estimates; o Roadmap addresses at least five (5) strategic areas; o Roadmap suggests tools and competencies that are available or must be acquired. o Roadmap indicates an estimation of the economies and business value in the recommended approach **3 points per characteristic up to 24 points** **AND 4 points** • The Contract Statement of Work demonstrating that a Public-Cloud Migration Roadmap was in the scope of the contract the Bidder had with the client **AND 4 points** • In the case of	

CR#	Rated Technical Criteria	Maximum Points	Points Allocation	Bidder's Response
			Intellectual Property ownership: o A copy of the contract with reference to where the intellectual property ownership is stated, or o The title of the IP, the type of IP for the company it is for, and its usage • In the case of Security of information: o A copy of the contract with the security of information highlighted	

INSERT:

CR#	Rated Technical Criteria	Maximum Points	Points Allocation	Bidder's Response
CR1	The Bidder should demonstrate its experience and understanding of the public-cloud space as it relates to the Government of Canada by providing an example of a public-cloud migration roadmap (a linear representation of detailed activities over time) that was delivered within the past three years (prior to solicitation issue date) to any Canadian public sector organization* OR to a qualifying** government Department or Agency for one of the Border Five*** countries supporting its move to public-cloud infrastructure * public sector organization is defined as any Department, Agency or Crown Corporation of the Canadian Federal Government,	32	4 points for each demonstrated characteristic described below No demonstration = 0 points 1. Roadmap includes the client's high-level strategic objectives or business case for migration to the public cloud services. 2. Roadmap includes a High-level analysis of the current and future state of the client's application workloads and cloud capabilities; 3. Roadmap includes an indication of the challenges in terms of workloads, data	

Canadian Provincial Governments, and Canadian Municipal governments (representing Pop. 1+ Million).

** A qualifying government department or agency for one of the Border Five countries includes all federal departments or agencies and any state or municipal government representing a population of 1+ Million.

*** Border Five countries include: Canada, United States, United Kingdom, Australia and New Zealand.

The roadmap should include:

- High-level activities to be undertaken as part of the cloud adoption and migration strategy in the organization;

- Activities occur over a timeline (minimum of three (3) years) and are broken down into at least three (3) implementation phases with the ultimate goal of achieving a cloud-optimized government department or agency;

- Activities grouped into a minimum of five (5) strategic areas, such as:

  o Governance

  o Workforce

  o Technology

  o Operations

  o Security

The following information should be provided with the Roadmap using

and critical services;

4. Roadmap includes the incremental steps that must be taken to transition to the future state;

5. Roadmap includes prioritization, milestones, timelines, high-level effort and cost estimates;

6. Roadmap addresses at least five (5) strategic areas;

7. Roadmap suggests tools and competencies that are available or must be acquired.

8. Roadmap indicates an estimation of the economies and business value in the recommended approach

OR, alternatively:

- A letter signed by the client (or email with signature) confirming that the Public-Cloud Migration Roadmap cannot be shared with the CBSA by reason of Intellectual Property ownership or Sensitivity of the information AND checking off which of the following areas they fully agree were addressed in the delivered Roadmap:

  o Roadmap includes the client's high-level strategic objectives or business case for migration to the public cloud services.

  o Roadmap includes a High-level analysis of the current and future state of the client's application workloads and cloud capabilities;

the Form CR1. 6. The name of the client organization; 7. The Contract number or reference number(s), i.e. Task Authorization(s), Purchase Order(s), etc; 8. The start and completion dates of the Contract; 9. The Project title; 10. Contact information for the reference person at the client organization: Name, title, telephone number, and email address.		o Roadmap includes an indication of the challenges in terms of workloads, data and critical services; o Roadmap includes the incremental steps that must be taken to transition to the future state; o Roadmap includes prioritization, milestones, timelines, high-level effort and cost estimates; o Roadmap addresses at least five (5) strategic areas; o Roadmap suggests tools and competencies that are available or must be acquired. o Roadmap indicates an estimation of the economies and business value in the recommended approach **3 points per characteristic up to 24 points** **AND 4 points** • The Contract Statement of Work demonstrating that a Public-Cloud Migration Roadmap was in the scope of the contract the Bidder had with the client **AND 4 points** • In the case of Intellectual Property ownership: o A copy of the contract with reference to where the intellectual	

			property ownership is stated, or ○ The title of the IP, the type of IP for the company it is for, and its usage • In the case of Security of information: ○ A copy of the contract with the security of information highlighted	

AT ATTACHMENT 4.3

BIDDER'S RESPONSE FORMS TO CORPORATE REQUIREMENTS

DELETE:

FORM CR1

FORM CR1 PUBLIC CLOUD MIGRATION ROADMAP	
The Bidder should attach an example of a public-cloud migration roadmap (a linear representation of detailed activities over time) that was delivered within the past three years (prior to solicitation issue date) to any Canadian public sector organization* OR to a federal-level government Department or Agency for one of the Border Five** countries supporting its move to public-cloud infrastructure.	
SECTION 1: CLIENT INFORMATION	
Client Organization Name	
Client Contact Name and Title	
Address	
Telephone	
E-mail	
SECTION 2: CONTRACT INFORMATION	

Contract/Task Authorization #	
Start Date	
Completion Date	
Project Title:	

☐ Attached is a copy of the Public Cloud Migration Roadmap

OR

☐ Attached are alternate documents as described in criteria:
  - o Client letter with information described in criteria
  - o Copy of Statement of Work
  - o Copy of Contract IP Clause OR Copy of Contract Security of Information Clause pertaining to the Roadmap deliverable

INSERT:

FORM CR1

FORM CR1 **PUBLIC CLOUD MIGRATION ROADMAP**	
The Bidder should attach an example of a public-cloud migration roadmap (a linear representation of detailed activities over time) that was delivered within the past three years (prior to solicitation issue date) to any Canadian public sector organization* OR to a qualifying federal-level government Department or Agency for one of the Border Five** countries supporting its move to public-cloud infrastructure	
SECTION 1: CLIENT INFORMATION	
Client Organization Name	
Client Contact Name and Title	
Address	
Telephone	
E-mail	
SECTION 2: CONTRACT INFORMATION	
Contract/Task Authorization #	
Start Date	
Completion Date	

Project Title:	

☐   Attached is a copy of the Public Cloud Migration Roadmap

OR

☐   Attached are alternate documents as described in criteria:
  o   Client letter with information described in criteria
  o   Copy of Statement of Work
  o   Copy of Contract IP Clause OR Copy of Contract Security of Information Clause pertaining to the Roadmap deliverable

ALL OTHER TERMS AND CONDITIONS OF THE RFP REMAIN UNCHANGED