

ANNEX A - STATEMENT OF WORK

1.0 Title: COVID-19 Pandemic Requirement – Informatics Professional Services

2.0 Objective

***** THIS CONTRACT IS BEING PUT IN PLACE BY CANADA AS PART OF ITS RESPONSE TO THE COVID-19 PANDEMIC *****

The public health threat posed by the COVID-19 pandemic has led all levels of government to take unprecedented measures to help slow the spread of COVID-19 and thereby minimise serious illness, death and social disruption resulting from the pandemic. Difficult choices are being made in a context of considerable uncertainty, as knowledge about COVID-19 and the impact of unprecedented public health measures evolve rapidly. In March 2020, COVID-19 was declared a pandemic by the World Health Organization (WHO). As it began to spread across the world, the Government of Canada (GoC) enacted a number of public health measures, including actions to tighten Canada's border and reduce international travel.

The Canada Border Services Agency (CBSA) requires a variety of Information Management (IM)/Information Technology (IT) professional resource services to support changes to the operational environment to better respond to the needs of the public, public safety and employee safety given the threat of Covid19 and its variants. Engendering trust in the health and safety within Canada's travel industry, commercial industry and safety at the front lines for Border Services Officers (BSOs) protective measures in-line with the need to address the risks of Covid, the CBSA needs to react and adapt, leveraging IT to meet these needs.

These immediate health and safety requirements will leverage information technology tools and capabilities to provide safe social distancing and touch-less alternative methods for the management of the border, by protecting Canadians, travelers to Canada and CBSA Officers against potential exposure to the Covid19 virus and variants.

Work will focus on the following areas:

1. Border Services Officers' Tools – Protective Measures in-line with Covid-19 environment.
2. Engender trust in the health and safety within Canada's air industry by implementing alternatives to move away from airport high touch/zero social distancing/paper methods to airport low touch/high social distancing/paper-less alternative methods.
3. Increase and enhance remote border and migrant workers reporting opportunities and capabilities (social distancing) at land border crossings, marine (pleasure boats), train and private/remote airports.
4. Implement modern risk assessment tools to support and enable predictive analytics to address the growing volumes of low-value shipments (contact-less delivery).
5. Ensure the safety of all travelers crossing ports of entry with proof of vaccination, digital credentials and reporting of Covid19 test results to the appropriate health authority.
6. Increase and enhance safety within the commercial industry in reducing risk of Covid transmission by implementing low touch/no touch methods.

This will include, but will not be limited to work in the following technical areas: mobile applications development (both iOS and Android), web applications, smart mobile technologies, biometrics, digital

credentials, CBSA public cloud (services Amazon Web Services (AWS), Azure, etc), infrastructure and operations), predictive analytics, geolocation (remote border), Application Programming Interface (API) development, cyber security, near field communication, optical character recognition, document reading, electronic data manifest ingestion, architecture (mobile, security, cloud), digitization of paper forms (and process), user experience, design sessions, user-analytics, accessibility requirements, hands-free capabilities/technologies integration, systems integration, federation, integrated control systems, sensor technology, experimentation framework, smart orchestration, Border Services Officers Risk Assessment augmentation technology, artificial intelligence and machine learning.

3.0 Background

CBSA is responsible for providing integrated services supporting national security and public safety priorities while facilitating the free flow of people and goods. CBSA manages this priority through its design, development, implementation and ongoing support of IM/IT tools and systems at the Agency, while maintaining the integrity and availability of all technology infrastructures and applications.

Information, Science and Technology Branch (ISTB) provides technology leadership of operational IT applications/programs and corporate business applications at CBSA. ISTB provides delivery of technology products, applications and services to meet business needs while investing in modern IT infrastructure to maintain, build on and innovate current and future IM/IT Agency initiatives.

The Border Technologies Innovation Directorate (BTID) is responsible for the prototyping, development, and deployment of innovative and transformative initiatives while overseeing Enterprise Architecture for ISTB. These initiatives include, but are not limited to, critical systems and applications that serve as common components for internal and external stakeholders. As well, BTID is accountable for the design, development and delivery of enterprise and corporate IT/IM solutions in support of CBSA's mandate.

The BTID is responsible for the design, development, planning and analysis, maintenance and implementation/roll out of IM/IT innovation enterprise programs across CBSA. BTID is the National Centre of Expertise (NCOE) for all innovation IT development projects. BTID is accountable for the coordination, technical lead on and delivery of the IM/IT critical innovation projects.

As a result of the COVID 19 pandemic, CBSA is looking to engage IT Professional Services to help them to develop critical solutions in the areas pertaining to our national ArriveCan application, Artificial Intelligence (AI) driven tools for CBSA's frontline officers (BSO's), remote Border crossing capabilities, touchless services (leveraging biometrics) across our traveler, commercial & Enforcement & Intelligence operational and program business lines, cloud and e-commerce solutions to facilitate an increased amount of shipments crossing the border due to COVID. All solutions are put in place to increase safety and security to all Canadians during this pandemic and onward.

4.0 Scope of the Work

The intent of these solutions is to provide safe, digital, data driven and secure alternatives for CBSA to continue to conduct their business and fulfil their mandates during the COVID pandemic and onward. These solutions will primarily reduce exposure to potential risks for Canadians, travelers and front line Border Services Officers when travelers and shipments are entering Canada from abroad.

The Contractor must provide IM/IT professional services on an as and when required basis in the National Capital Region (NCR) (to be outlined in Task Authorizations sent for the Work) and in accordance with best practices. Projects may be in any of the following stages: scoping and approval, experimentation, prototyping, minimal viable product, piloting, operationalization, transition to IT OPS, identification, in the midst of work, or delivery. CBSA requires the following IT Professional Services:

Workstream 1 – Application and Data Services

(a)	RESOURCE CATEGORY	Level of Expertise
A.1	Application/Software Architect	Level 3
I.5	IM Architect – Cloud	Level 3
I.10	Technical Architect	Level 3
I.5	IM Architect – Data/ AI	Level 3
I.10	Technical Architect - Mobile	Level 3
A.16	Web Multi Media Content Consultant	Level 3
A.6	Programmer / Software Developer (iOS/ Android)	Level 3
A.14	Web Developer	Level 3
P.11	Quality Assurance Specialist / Analyst	Level 3

The Work will involve, but will not be limited to, the ability of industry to provide such IT Services as outlined below:

- a. **Business Architecture:** A description of the structure and interaction between the business strategy, Organizational Design, Functions and/or Services Capabilities, related business, value streams, value chains, Processes producing product deliverables and information records of Business values, achieving results and information needs in compliance with the Record Keeping Directive and other information management policies and best practices. Business Architects often work with Service Architects, Business Analysts and Business Process modelers.
- b. **Information & Data Architecture:** The structure of an organization's logical and physical data assets and data management resources. The data architect defines the collection, storage and movement of data (data models and data flow), normalize data where applicable or efficient across an organization. The Information Architect, Data scientist, extract meaning from data or information and make recommendations as to how to optimize their value.
- c. **Applications Architecture:** A description of the structure and interaction of the applications as groups of capabilities that provide key business functions, services related processes. They can be involved in management of the data assets inclusive of Critical Services, Business Impact Assessments, Business Continuity Plan, Disaster Recovery Plans. Application Architects are well versed into the modern ways to build software as Services, ERPs approaches, and make recommendations as to how they should be built whether the application is a Commercially Of the Shelf (CoTS) solution or a development effort.
- d. **Technology Architecture:** Are responsible for designing the high level structure of new technology Solutions, including emerging and potentially disruptive technologies that Solution teams may use. The description of the structure and interaction of the platform services, and logical and physical technology components often include related risks and potential roadblocks. This includes IT infrastructure, middleware, networks, communications, end user devices, service and systems management, hybrid cloud services, processing and related standards.
- e. **Solution Architecture:** Is the practice of defining and describing an architecture of a system delivered in the context of a specific solution and as such it may encompass description of an entire system or only specific parts. The production of complete sets of Enterprise Solution Architecture documents for specific solutions may include making recommendations guiding the reuse of existing solutions, the refactoring of application code, the acquisition of solution from Industry (CoTS) or the building of solutions when none exist bringing together elements and components from the aforementioned Architectural dimensions.

5.0 Tasks

The Contractor must provide support for IM/IT professional services on an as and when required basis. Each validly issued Task Authorization will outline the type of resource(s), the work and tasks to be completed and the location of the Work, whether in the NCR or remotely.

Tasks include, but are not limited to the following:

Workstream 1: Application and Data Services

A.1 – Application/Software Architect – Level 3

Responsibilities could include but are not limited to

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

The Application/Software Architect will be responsible for, but not limited to, the following tasks:

- Develop technical architectures, frameworks and strategies, for adoption and investments either for an organization or for a major application area, to meet the business and application requirements
- Identify the policies and requirements that drive out a particular solution
- Analyze and evaluate alternative and emerging technology solutions towards digital innovation of both business and technical areas and related integration to solve business problems
- Ensure the integration of all aspects of technology solutions
- Provide expertise in Cloud advisory and architecture services aligned with CBSA and TBS guiding principles.
- Provide advice, and progressive awareness towards the GC Architecture standards and assist in building related communities of practices.
- Monitor industry trends to ensure that solutions fit with government and industry directions for technology
- Analyze functional requirements to identify information, procedures and decision flows
- Evaluate existing procedures and methods, identify and document database content, structure, and application sub-systems, and develop data dictionary
- Define and document interfaces of manual to automated operations within application sub-systems, to external systems and between new and existing systems.
- conceptualize, plan and conduct research and analysis on new and existing application systems
- develop conceptual, logical and physical architectures
- develop solutions for complex IT projects involving technological components that include business requirements and systems development

- design functionality on IM/IT projects
- provide guidance to the development team during implementation of the design
- analyze and evaluate alternative technology solutions for application and software development to meet business requirements (or solve business problems)
- monitor industry trends to ensure that solutions fit with government and industry directions for technology
- develop solutions with an operational data store and/or a data warehouse
- evaluate EC's existing procedures and methods for application/software development, identify and document database content, structure and application subsystems and develop data dictionaries
- define input/output sources, including detailed plan for technical design phase and obtain approval of the Technical Authority of the system proposal
- Upon request, perform other related tasks of solution architects as may be assigned by the Technical Authority or delegate.

I.5 – IM ARCHITECT - CLOUD – Level 3

Responsibilities could include but are not limited to

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

The IM Architect (Cloud) will be responsible for, but not limited to, the following tasks:

- Cloud applications, services, and data base architecture options within AWS and MS Azure,
- Implement near-real-time SQL data flows for Data Warehousing, Cloud-to-Cloud data flows, Data Mining, Business Intelligence, analytics, and reporting.
- OLAP, SSAS / Data Cube storage and retrieval techniques to optimize retrieval and analysis of data spread across multiple SQL databases / disparate tables and files. There is a need to retrieve data based on dynamic criteria such as time-periods, geographic locations, and other parameters.
- Big Data Analytics algorithms, analysis, and languages/ecosystems for scalable implementation; including migrating existing Matlab analyses to cloud computing scalable languages and ecosystems. For example, R and Python on Spark for scalable multi-threaded computing.
- MS Azure cloud applications, services, data base options, implementing near-real-time data flows, analytics and visualization / reporting.
- SQL data base development in multiple environments, design for a stable, reliable, high performance environment, and troubleshooting / optimizing legacy cloud data flows.

I.5 – IM Architect - Data/ AI – Level 3

Responsibilities could include but are not limited to

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

The IM Architect (Data) will be responsible for, but not limited to, the following tasks:

- Identify the policies and requirements that drive out a particular solution
- Analyze current Information and Data architectures and plan and produce target states.
- Analyze and evaluate alternative technology solutions to meet business problems
- Ensure the integration of all aspects of technology solutions
- Monitor industry trends to ensure that solutions fit with government and industry directions for technology
- Analyze functional requirements to identify information and data, procedures and decision flows
- Evaluate existing procedures and methods, identify and document database content, structure, and application sub-systems, and develop data dictionary
- Define and document interfaces of manual to automated operations within application sub-systems, to external systems and between new and existing systems, including data models, data flows and normalization and standardization procedures, controlled vocabularies and dictionaries.
- Define input/output sources, including detailed plan for technical design phase, and obtain approval of the system proposal
- Identify and document system specific standards relating to programming, documentation and testing, covering program libraries, data dictionaries, naming conventions, etc
- Experience using ERWin, Sprax Architect and data modelling notations such as IDEF producing solution specific and Enterprise level Data Models (EDM), Data Flows and applicability for Interoperability purposes – Enterprise Service Bus (ESB), Application Programming Interfaces (APIs), potential standard messaging between business applications and related system software.
- Produce documentation specifying the resulting design and recommendations of the analysis
- define and assess client information and data requirements
- Implement the information and data architecture, flows and models, dictionaries, controlled vocabularies across CBSA. Produce Subject Area models, Information & data flows, Entity or Object diagrams
- Identify and evaluate potential options for metadata management
- Develop strategy and framework documents and action plans
- Make strategic recommendations to senior management (i.e. written strategy documents for the use of senior management in the Government of Canada environment)
- Present recommendations to senior management
- Facilitate Working Sessions to identify Information and Data requirements, flows, standards
- Analyze, define and document business data requirements and system data requirements
- Analyze, define and document metadata requirements for information systems
- Develop technical documents for enterprise information architecture for review and acceptance by senior management

I.10 - Technical Architect - Level 3

Responsibilities could include but are not limited to

- Develop technical architectures, frameworks and strategies, either for an organization or for a major application area, to meet the business and application requirements
- Identify policies and requirements that drive out a particular solution
- Analyze and evaluate alternative technology solutions to meet business problems
- Ensure the integration of all aspects of technology solutions
- Evaluate hardware and software relative to their ability to support specified requirements and, by determining potential and actual bottlenecks, and improve system performance through recommended hardware changes
- Review computer software systems and data requirements as well as communication and response needs and determine operating systems and languages needed to support them

The Technical Architect will be responsible for, but not limited to, the following tasks:

- Develop technical architectures, frameworks and strategies, either for an organization or for a major application area, to meet the business and application requirements.
- Identify policies and requirements that drive out a particular solution.
- Analyze and evaluate alternative technology solutions to meet business problems.
- Ensure the integration of all aspects of technology solutions.
- Evaluate hardware and software relative to their ability to support specified requirements and, by determining potential and actual bottlenecks, and improve system performance through recommended hardware changes.
- Review computer software systems and data requirements as well as communication and response needs and determine operating systems and languages needed to support them
- Make recommendations as to the use and placement in an architectural and physical/design sense of newer main stream technologies to replace current legacy and obsolete technology components and approaches, potential use of emergent or potentially disruptive technologies such as Artificial Intelligence, Machine Learning or Blockchain. Use cases for example.

I.10 - Technical Architect (Mobile) – Level 3

Responsibilities could include but are not limited to

- Develop technical architectures, frameworks and strategies, either for an organization or for a major application area, to meet the business and application requirements
- Identify policies and requirements that drive out a particular solution
- Analyze and evaluate alternative technology solutions to meet business problems
- Ensure the integration of all aspects of technology solutions
- Evaluate hardware and software relative to their ability to support specified requirements and, by determining potential and actual bottlenecks, and improve system performance through recommended hardware changes
- Review computer software systems and data requirements as well as communication and response needs and determine operating systems and languages needed to support them

The Technical Architect (Mobile) will be responsible for, but not limited to, the following tasks:

- Develop Mobile technical architectures, frameworks and strategies, either for an organization or for a major application area, to meet the business and application requirements.
- Identify the policies and requirements that drive out a particular solution.
- Analyze and evaluate alternative technology solutions to meet business problems.

- Ensure the integration of all aspects of technology solutions.
- Monitor industry trends to ensure that solutions fit with government and industry directions for technology.
- Provide information, direction and support for emerging technologies.
- Perform impact analysis of technology changes.
- Provide support to applications and/or technical support teams in the proper application of existing infrastructure.
- Review application and program design or technical infrastructure design to ensure adherence to standards and to recommend performance improvements.
- Evaluate capacity planning, backup and restoration procedures for storage capabilities;
- Assist in the development of data disaster recovery plans, as they relate to storage capabilities and continuity;
- Ensure the integration of all aspects of technology solutions;
- Monitor industry trends to ensure that solutions fit with government and industry directions for technology;
- Providing information, direction and support for emerging technologies;
- Performing impact analysis of technology changes;
- Reviewing application and program design or technical infrastructure design to ensure adherence to standards and to recommend performance improvements;
- Oversee policies and procedures to ensure consistent and seamless storage continuity and capabilities; and,
- Other tasks associated with Mobile management, as required.

A.6– Programmer / Software Developer (iOS/Android) - Level 3

Responsibilities could include but are not limited to

- Develop and prepare diagrammatic plans for solution of business, scientific and technical problems by means of computer systems of significant size and complexity
- Analyze the problems outlined by the systems analysts/designers in terms of such factors as style and extent of information to be transferred to and from storage units, variety of items to be processed, extent of sorting, and format of final printed results
- Select and incorporate available software programs
- Design detailed programs, flow charts, and diagrams indicating mathematical computation and sequence of machine operations necessary to copy and process data and print the results
- Translate detailed flow charts into coded machine instructions and confer with technical personnel in planning programs
- Verify accuracy and completeness of programs by preparing sample data, and testing them by means of system acceptance test runs made by operating personnel
- Correct program errors by revising instructions or altering the sequence of operations
- Test instructions, and assemble specifications, flow charts, diagrams, layouts, programming and operating instructions to document applications for later modification or reference

The Programmer / Software Developer will be responsible for, but not limited to, the following tasks:

- Develop technical architectures, frameworks and strategies, either for an organization or for a major application area, to meet the business and application requirements.
- Develop and prepare diagrammatic plans for solution of business, scientific and technical problems by means of computer systems of significant size and complexity
- Analyze the problems outlined by the systems analysts/designers in terms of such factors as style and extent of information to be transferred to and from storage units, variety of items to be processed, extent of sorting, and format of final printed results
- Select and incorporate available software programs
- Design detailed programs, flow charts, and diagrams indicating mathematical computation and sequence of machine operations necessary to copy and process data and print the results

- Translate detailed flow charts into coded machine instructions and confer with technical personnel in planning programs
- Verify accuracy and completeness of programs by preparing sample data, and testing them by means of system acceptance test runs made by operating personnel
- Correct program errors by revising instructions or altering the sequence of operations
- Test instructions, and assemble specifications, flow charts, diagrams, layouts, programming and operating instructions to document applications for later modification or reference
- Design or extend the design of mobile applications taking into considerations iOS and Android accessibility platform guidelines in order to correct current accessibility deficiencies and to deliver new business functionality
- Ensure that the mobile applications are adhering to WCAG 2.0 guidelines where applicable
- Develop and upgrade iOS and Android applications based on iOS and Android accessibility platform frameworks, methodologies and API's
- Unit test mobile applications to ensure that applications are compliant with platform accessibility guidelines

A.14 – Web Developer - Level 3

Responsibilities could include but are not limited to

- Develop technical architectures, frameworks and strategies, either for an organization or for a major application area, to meet the business and application requirements
- Identify policies and requirements that drive out a particular solution
- Analyze and evaluate alternative technology solutions to meet business problems
- Ensure the integration of all aspects of technology solutions
- Evaluate hardware and software relative to their ability to support specified requirements and, by determining potential and actual bottlenecks, and improve system performance through recommended hardware changes
- Review computer software systems and data requirements as well as communication and response needs and determine operating systems and languages needed to support them

The Web Developer will be responsible for, but not limited to, the following tasks:

- Develop and prepare diagrammatic plans for web based service delivery over the internet
- Analyze the problems outlined by systems analysts/designers in terms of such factors as style and extent of information to be transferred across the internet
- Select and use the best available web development tools for linking the internet based client to the departmental “back end” information delivery programs and databases
- Design high-usability web pages to meet the requirement
- Verify accuracy and completeness of programs by preparing sample data, and testing them by means of system acceptance test runs made by operating personnel
- Correct program errors by revising instructions or altering the sequence of operations
- Test instructions, and assemble specifications, flow charts, diagrams, layouts, programming and operating instructions to document applications for later modification or reference
- Design or extend the design of web application taking into considerations WCAG 2.1 accessibility guidelines in order to correct current accessibility deficiencies and to deliver new business functionality
- Develop and/or extend web application meet or exceed WCAG 2.1 AAA web standards
- Unit test web applications to ensure that applications are compliant with WCAG 2.1 accessibility guidelines

A.16 – Web Multi Media Content Consultant - Level 3

Responsibilities could include but are not limited to

- Create web pages including multi-media design
- Develop and implement usability tests, analyse results and modify design accordingly
- Develop flowcharts (web site flow maps) depicting navigation and basic content
- Develop line drawings or block diagrams illustrating the priority of information, links, navigation and space requirements
- Develop content diagrams showing the interactive connection between web pages
- Develop interactive prototypes showing basic form and functionality used for both usability testing and presentations

The Web Content Multi Media Consultant will be responsible for, but not limited to, the following tasks:

- Create web pages including multi-media design
- Develop and implement usability tests, analyse results and modify design accordingly
- Develop flowcharts (web site flow maps) depicting navigation and basic content
- Develop line drawings or block diagrams illustrating the priority of information, links, navigation and space requirements
- Develop content diagrams showing the interactive connection between web pages
- Develop interactive prototypes showing basic form and functionality used for both usability testing and presentations

P.11 –Quality Assurance Specialist / Analyst - Level 3

Responsibilities could include but are not limited to:

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

The Quality Assurance Specialist / Analyst will be responsible for, but not limited to, the following tasks:

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

6.0 Deliverables

The Contractor must provide the following deliverables in accordance with validly issued Task Authorizations which include, but are not limited to:

- “Touchless border” target models
- Rapid diagnostic and scope/landscape summaries
- High-level data integration target operating models
- Industry leading practice frameworks and adoption approach roadmaps
- Application Programming Interface(s) (API) strategy to deliver connectivity for ArriveCAN
- Detailed operational work plans and playbooks
- Written and verbal advice;

- Issues papers/Briefing Notes;
- Presentation decks and materials;
- Meeting facilitation and reports (e.g. Monthly Progress Reports);
- Management Action Plans;
- Work plans for specific initiatives;
- Business Cases;
- Business Planning, including risk planning and risk analysis, Risk Management Plans, and Statement of Requirements;
- Tracking against plans – including level of effort and resource estimation as part of IM/IT business planning;
- Trend Analyses;
- Fit/Gap Analyses;
- Guides, manuals, reports to be disseminated to various stakeholders as required;
- Meeting agendas, schedules and minutes;
- Synthesis report of facilitated meetings;
- Activity reports;
- Project Management Plans and project documentation such as Project Schedules, Lessons Learned, Progress Reports, Deficiency Reports, Project Forecasts, Road Maps; and Post Project Review Reports; and
- Conversation notes, design documentation, change management documentation, site inspection reports and other Work requested under the Task Authorization.

The level of support versus management services provided by the Contractor's resources for items listed above will vary depending on the needs of the Work.

Deliverables to be submitted in hard and soft copies in the appropriate software formats (e.g. MS Project or MS Office Suite applications as identified by the Technical Authority. All electronic deliverables must comply with departmental software standards, currently MS Office Suite latest version. Where required, the project management team will provide the Contractor with the required forms and templates to meet these standards.

7.0 Client Support

The Client will provide all documentation and information necessary for the Work.

8.0 Work Location

Work locations may vary across the NCR depending on the requirement. The Contractor's resources may be required to work onsite at CBSA site offices or project site locations in the NCR or remotely due to the COVID-19 Pandemic, depending on the Task Authorization issued.

CBSA will provide, in accordance with CBSA security requirements, and only to the specified resource personnel, access to identified databases or applications resident on CBSA computers or networks for the sole purpose of executing tasks associated with this Contract. CBSA, at its sole discretion, will identify the nature and characteristics of such access.

CBSA will provide, in accordance with CBSA security requirements, specified consultants with CBSA issued laptops. All CBSA information and assets must remain resident within Canada.

9.0 Travel

There are no travel and living related expenses associated with this Contract.

10.0 Language of Work

The Work will be performed in English.

11.0 Accessibility

The Government of Canada strives to ensure that the goods and services it procures are inclusive by design and accessible by default, in accordance with the Accessible Canada Act, its associated regulations and standards, and Treasury Board Contracting Policy.

The Work will include development, architecture and integration of CBSA applications including the ArriveCan web and mobile applications to ensure the removal of barriers and provide ease of access in compliance with Bill C-65.

In accordance with Bill C-65 - Accessibility Plans — Regulations Under This Act

Link:

https://lop.parl.ca/sites/PublicWebsite/default/en_CA/ResearchPublications/LegislativeSummaries/421C65E#:~:text=Bill%20C%E2%80%9165%2C%20An%20Act%20to%20amend%20the%20Canada,Hajdu%2C%20Minister%20of%20Employment%2C%20Workforce%20Development%20and%20Labour.

Initial accessibility plan

- 65 (1) A regulated entity referred to in subsection 60(1) must, before the expiry of one year after the day fixed or determined by regulations made under subsection 117(1) that apply to that regulated entity, prepare and publish, in accordance with this Act and regulations made under subsection 117(1), an accessibility plan respecting

(a) its policies, programs, practices and services in relation to the identification and removal of barriers, and the prevention of new barriers, in

(i) the areas referred to in paragraphs 5(a) and (g),

(ii) the built environment, other than passenger aircraft, passenger trains, passenger buses, passenger vessels, aerodrome passenger terminals, railway passenger stations, bus passenger stations or marine passenger terminals, and

(iii) the area referred to in paragraph 5(c.1) as it relates to the areas referred to in paragraphs 5(a) and (g) and to the built environment referred to in subparagraph (ii); and

(b) the provisions of regulations made under subsection 117(1) that apply to it.

APPENDIX A TO ANNEX A

TASKING ASSESSMENT PROCEDURE

1. Where a requirement for a specific task is identified, a draft Task Authorization Form (TA Form) as attached at Appendix B to Annex A will be provided to the Contractor in accordance with the allocation methodology stated in the Contract Article titled "Allocation of Task Authorizations". Once a draft TA Form is received, the Contractor must submit to the Technical Authority a quotation of rates to supply the requested Resource Categories based on the information identified in the TA Form, as well as its corresponding proposed resource(s). The quotation must be signed and submitted to Canada within the time for response identified in the TA Form. The Contractor will be given a minimum of 2 working days (or any longer time period specified in the draft TA) turnaround time to submit a quotation.
2. With each quotation the Contractor must propose the required number of resources and for each proposed resource the Contractor must supply a résumé, the requested security clearance information and must complete the Response Tables at [Appendix C of Annex A](#) applicable to the Resource Categories identified in the draft TA. The same individual must not be proposed for more than one Resource Category. The résumés must demonstrate that each proposed individual meets the qualification requirements described (including any educational requirements, work experience requirements, and professional designation or membership requirements). With respect to the proposed resources:
 - (i) Proposed resources may be employees of the Contractor or employees of a subcontractor, or these individuals may be independent contractors to whom the Contractor would subcontract a portion of the Work. (Refer to Appendix D to Annex A, Certifications).
 - (ii) For educational requirements for a particular degree, designation or certificate, Canada will only consider educational programmes that were successfully completed by the resource before the date the draft TA was first issued to the Contractor.
 - (iii) For requirements relating to professional designation or membership, the resource must have the required designation or membership by the time of draft TA issuance and must continue, where applicable, to be a member in good standing of the profession or membership throughout the assessment period and Contract Period. Where the designation or membership must be demonstrated through a certification, diploma or degree, such document must be current, valid and issued by the entity specified in this Contract or if the entity is not specified, the issuer must have been an accredited or otherwise recognized body, institution or entity at the time the document was issued.
 - (iv) For work experience, Canada will not consider experience gained as part of an educational programme, except for experience gained through a formal co-operative programme at a post-secondary institution.
 - (v) For any requirements that specify a particular time period (e.g., 2 years) of work experience, Canada will disregard any information about experience if the résumé does not include the relevant dates (month and year) for the experience claimed (i.e., the start date and end date). Canada will evaluate only the duration that the resource actually worked on a project or projects (from his or her start date to end date), instead of the overall start and end date of a project or a combination of projects in which a resource has participated.
 - (vi) A résumé must not simply indicate the title of the individual's position, but must demonstrate that the resource has the required work experience by explaining the responsibilities and work performed by the individual while in that position. Only listing experience without providing any supporting data to describe responsibilities, duties and relevance to the requirement, or reusing the same wording as the TA Form, will not be considered "demonstrated" for the purposes of the assessment. The Contractor should provide complete details as to where, when, month and year, and how, through which

activities/responsibilities, the stated qualifications / experience were obtained. In situations in which a proposed resource worked at the same time on more than one project, the duration of any overlapping time period will be counted only once toward any requirements that relate to the individual's length of experience.

3. The qualifications and experience of the proposed resources will be assessed against the requirements set out in Appendix C to Annex A to determine each proposed resource's compliance with the mandatory and rated criteria. Canada may request proof of successful completion of formal training, as well as reference information. Canada may conduct reference checks to verify the accuracy of the information provided. If reference checks are done, they will be conducted in writing by e-mail (unless the contact at the reference is only available by telephone). Canada will not assess any points or consider a mandatory criterion met unless the response is received within 5 working days. On the third working day after sending out the e-mails, if Canada has not received a response, Canada will notify the Contractor by e-mail, to allow the Contractor to contact its reference directly to ensure that it responds to Canada within 5 working days. Wherever information provided by a reference differs from the information supplied by the Contractor, the information supplied by the reference will be the information assessed. Points will not be allocated or a mandatory criteria considered as met if the reference customer is not a customer of the Contractor itself (for example, the customer cannot be the customer of an affiliate of the Contractor). Nor will points be allocated or a mandatory criteria considered as met if the customer is itself an affiliate or other entity that does not deal at arm's length with the Contractor Crown references will be accepted.
4. During the assessment of the resources proposed, should the references for two or more resources required under that TA either be unavailable or fail to substantiate the required qualifications of the proposed resources to perform the required services, the Contractor's quotation may be found to be non-responsive.
5. Only quotations that meet all of the mandatory criteria will be considered for assessment of the point rated criteria. Each resource proposed must attain the required minimum score for the point rated criteria for the applicable Resource Category. If the minimum score for any proposed resource is less than what is required, the Contractor's quotation will be found to be non-responsive.
6. Once the quotation has been accepted by the Technical Authority, the TA Form will be signed by Canada and provided to the Contractor for signature. The TA Form must be appropriately signed by Canada prior to commencement of any work. The Contractor must not commence work until a validly issued TA Form (the Task Authorization) has been received, and any work performed in its absence is done at the Contractor's own risk.

**APPENDIX B TO ANNEX A
TASK AUTHORIZATION FORM**

TASK AUTHORIZATION (TA) FORM		
Contractor:		Contract No.
Task Authorization No.: (Amendment #):		Date:
Financial coding:		Commitment #:
1. STATEMENT OF WORK (WORK ACTIVITIES, CERTIFICATIONS AND DELIVERABLES)		
<p>BACKGROUND</p> <p>TASKS</p> <p>DELIVERABLES</p> <p>RESOURCE ESSENTIAL TECHNOLOGY REQUIREMENT(S)</p> <p>() (To be identified in TA) () (To be identified in TA) () (To be identified in TA) () (To be identified in TA) () (To be identified in TA)</p> <p>Technical Authority: Email:</p> <p>The Technical Authority is the CBSA Representative (or delegated representative) responsible for the management of this TA. Any changes to the TA must be authorized in writing by the Technical Authority and the Contracting Authority when applicable. The Contractor is not to perform work in excess of or outside the scope of this TA based on verbal or written requests or instructions from any government personnel other than the aforementioned officer.</p> <p><u>PLEASE SEND INVOICES TO:</u></p> <p>The Technical Authority: Email:</p> <p>The Technical Authority (or delegated representative) is responsible for all matters concerning the technical content of the Work under this TA. Any proposed changes to the scope of the Work are to be discussed with the Technical Authority, but any resulting change is only effective and enforceable if a written TA amendment is issued by the Technical Authority or the PWGSC Contracting Authority.</p>		
2. PERIOD OF SERVICES:	FROM (DATE):	TO (DATE):
3. WORK LOCATION:		

4. TRAVEL REQUIREMENTS:				
5. LANGUAGE REQUIREMENTS:				
6. LEVEL OF SECURITY CLEARANCE REQUIRED				
7. COST				
CATEGORY	NAME OF RESOURCE	PER DIEM RATE	ESTIMATED # OF DAYS	TOTAL COST
				\$
	ESTIMATED COST			\$
	APPLICABLE TAX			\$
	Sub Total			\$
	TOTAL TRAVEL & LIVING COST (INCLUDING APPLICABLE TAX)			\$
FIRM PRICE OR MAXIMUM TA PRICE				\$
8 SIGNATURES				
Technical Authority:		Signature:		Date:
		On File		
Contracting Authority:		Signature:		Date:
Check Either Option				
___ The Contractor hereby accepts this task authorization				
___ The Contractor does not accept this task authorization				
Name of Contractor authorized to sign (type or print):		Title of Contractor authorized to sign (type or print):		Date:
Signature:				

APPENDIX C TO ANNEX A- REVISED - January 19, 2022
RESOURCES ASSESSMENT CRITERIA AND RESPONSE TABLE

APPLICATION AND DATA SERVICES - LEVEL 3 (WS3284483925)

To facilitate resource assessment, Contractors 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.

Resource Category: A.1–Application/Software Architect – Level 3

Name of Proposed Resource: _____

Item	Mandatory Technical Criteria	Met	Not Met	Cross Reference to the Proposal
<p>MT1.1</p>	<p>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:</p> <ul style="list-style-type: none"> • Developing technical architectures, frameworks and strategies, to meet the business and application requirements; • Analyzing and evaluating alternative technology solutions to meet business problems; • Ensuring the integration of all aspects of technology solutions; • Evaluating existing procedures and methods, identifying and documenting database content, structure, and application sub-systems, and developing data dictionary; • Defining and documenting interfaces of manual to automated operations within application sub-systems, to external systems and between new and existing systems; and • Defining input/output sources, including detailed plan for technical design phase, and obtaining approval of the system proposal. <p>Note: To qualify, a project must have a minimum duration of six (6) months.</p> <p>To demonstrate compliance with all criteria, the Contractor must include the following information:</p> <ul style="list-style-type: none"> • Project name; • Client organization; • Project start /end dates and duration; • Project description; • Description of role and tasks performed by the resource. • Client contact reference – email/phone number, role of the reference, how did the reference manage the contract in order to confirm? 			
<p>MT1.2</p>	<p>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:</p> <ul style="list-style-type: none"> • 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. <p>Note: To qualify, a project must have a minimum duration of six</p>			

	<p>(6) months.</p> <p>To demonstrate compliance with all criteria, the Contractor must include the following information:</p> <ul style="list-style-type: none"> • Project name; • Client organization; • Project start /end dates and duration; • Project description; • Description of role and tasks performed by the resource. • Client contact reference – email/phone number, role of the reference, how did the reference manage the contract in order to confirm? 			
<p>MT1.3</p>	<p>The Contractor MUST demonstrate that the proposed resource has a minimum of five (5) years' experience within the last eight (8) years designing and implementing cloud solutions employing ALL of the following cloud technologies and services:</p> <ul style="list-style-type: none"> • 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 <p>Note: To qualify, a project must have a minimum duration of six (6) months</p> <p>To demonstrate compliance with all criteria, the Contractor must include the following information:</p> <ul style="list-style-type: none"> • Project name; • Client organization; • Project start /end dates and duration; • Project description; • Description of role and tasks performed by the resource • Client contact reference – email/phone number, role of the reference, how did the reference manage the contract in order to confirm? 			
<p>MT1.4</p>	<p>The Contractor MUST demonstrate that the proposed resource has a minimum of one (1) year experience designing and implementing cloud solutions for a *public sector organization.</p> <p>*Public sector is defined as a municipal/provincial/territorial or federal Government within Canada.</p> <p>Note: To qualify, a project must have a minimum duration of six (6) months.</p> <p>To demonstrate compliance with all criteria, the Contractor must include the following information:</p> <ul style="list-style-type: none"> • Project name; • Client organization; • Project start /end dates and duration; • Project description; • Description of role and tasks performed by the resource • Client contact reference – email/phone number, role of the reference, how did the reference manage the 			

	contract in order to confirm?			
MT1.5	<p>The Contractor MUST demonstrate that the proposed resource has:</p> <p>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):</p> <ul style="list-style-type: none"> • Azure Solutions Architect Expert • Amazon Solutions Architect Associate • Professional Cloud Architect (GCP) <p>A copy of the certificate(s) must be provided.</p>			

Resource Category: I.10 – Technical Architect Mobile – Level 3				
Name of Proposed Resource: _____				
Item	Mandatory Requirement	Met	Not Met	Cross Reference to the Proposal
MT2.1	<p>The Contractor MUST demonstrate that the proposed resource has a minimum of eight (8) years' experience developing mobile application working with MS Azure or AWS.</p> <p>To demonstrate compliance with all criteria, the Contractor must include the following information:</p> <ul style="list-style-type: none"> • Project name; • Client organization; • Project start /end dates and duration; • Project description; • Description of role and tasks performed by the resource • Client contact reference – email/phone number, role of the reference, how did the reference manage the contract in order to confirm? 			
MT2.2	<p>The Contractor MUST demonstrate that the proposed resource has a minimum of ten(10) years' experience performing all of the following tasks within a public cloud environment from the date of The Task Authorization request:</p> <ul style="list-style-type: none"> • Creating the conceptual, logical and physical 			

	<p>designs for mobile application architectures and their interoperability;</p> <ul style="list-style-type: none"> • 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 mobile application architectures. <p>To demonstrate compliance with all criteria, the Contractor must include the following information:</p> <ul style="list-style-type: none"> • Project name; • Client organization; • Project start /end dates and duration; • Project description; • Description of role and tasks performed by the resource • Client contact reference – email/phone number, role of the reference, how did the reference manage the contract in order to confirm? 			
<p>MT2.3</p>	<p>The Contractor MUST demonstrate that the proposed resource has a minimum of one (1) year of experience designing and implementing a minimum of three (3) mobile solutions for a Government of Canada Client on either MS Azure or AWS and at least one at the Accessibility level of AA WCAG 2.1 from the date of The Task Authorization request.</p> <p>To demonstrate compliance with all criteria, the Contractor must include the following information:</p> <ul style="list-style-type: none"> • Project name; • Client organization; • Project start /end dates and duration; • Project description; • Description of role and tasks performed by the resource • Client contact reference – email/phone number, role of the reference, how did the reference manage the contract in order to confirm? 			

<p>MT2.4</p>	<p>The Contractor MUST demonstrate that the proposed resource has a minimum of ten (10) years of experience developing mobile solutions integrated with location based services from the date of The Task Authorization request.</p> <p>To demonstrate compliance with all criteria, the Contractor must include the following information:</p> <ul style="list-style-type: none"> • Project name; • Client organization; • Project start /end dates and duration; • Project description; • Description of role and tasks performed by the resource • Client contact reference – email/phone number, role of the reference, how did the reference manage the contract in order to confirm? 			
<p>MT2.5</p>	<p>The Contractor MUST demonstrate that the proposed resource has a minimum of ten (10) years of experience developing mobile applications meeting top security standards, such as OWASP from the date of The Task Authorization request.</p> <p>To demonstrate compliance with all criteria, the Contractor must include the following information:</p> <ul style="list-style-type: none"> • Project name; • Client organization; • Project start /end dates and duration; • Project description; • Description of role and tasks performed by the resource • Client contact reference – email/phone number, role of the reference, how did the reference manage the contract in order to confirm? 			

Resource Category: I.5 – IM Architect – Data/AI – Level 3				
Name of Proposed Resource: _____				
Item	Mandatory Requirement	Met	Not Met	Cross Reference to the Proposal
MT3.1	<p>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:</p> <ul style="list-style-type: none"> • 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. <p>Note: To qualify, a project must have a minimum duration of six (6) months</p> <p>To demonstrate compliance with all criteria, the Contractor must include the following information:</p> <ul style="list-style-type: none"> • Project name; • Client organization; • Project start /end dates and duration; • Project description; • Description of role and tasks performed by the resource • Client contact reference – email/phone number, role of the reference, how did the reference manage the contract in order to confirm? 			
MT3.2	<p>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:</p> <ul style="list-style-type: none"> • Working with scalable data platforms such as; 			

	<p>Power BI, Hadoop, Spark, Redshift, NoSQL (dynamoDB / MongoDB);</p> <ul style="list-style-type: none"> • 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; • 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. <p>Note: To qualify, a project must have a minimum duration of six (6) months</p> <p>To demonstrate compliance with all criteria, the Contractor must include the following information:</p> <ul style="list-style-type: none"> • Project name; • Client organization; • Project start /end dates and duration; • Project description; • Description of role and tasks performed by the resource • Client contact reference – email/phone number, role of the reference, how did the reference manage the contract in order to confirm? 			
<p>MT3.3</p>	<p>The Contractor MUST demonstrate that the proposed resource has a minimum of three (3) years' experience within the last five (5) years from the date of The Task Authorization request performing a minimum of three (3) of the following tasks and activities:</p> <ul style="list-style-type: none"> • 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 			

	<ul style="list-style-type: none"> • Mentoring other data scientists in the design, implementation, testing, prototyping, and deploying of data analytic solutions. <p>Note: To qualify, a project must have a minimum duration of six (6) months</p> <p>To demonstrate compliance with all criteria, the Contractor must include the following information:</p> <ul style="list-style-type: none"> • Project name; • Client organization; • Project start /end dates and duration; • Project description; • Description of role and tasks performed by the resource • Client contact reference – email/phone number, role of the reference, how did the reference manage the contract in order to confirm? 			
MT3.4	<p>The Contractor MUST demonstrate the proposed resource holds:</p> <p>A Masters' degree in a quantitative discipline such as applied mathematics, computer science, data science, statistics or econometrics,</p> <p>OR</p> <p>An equivalent Canadian academic credential assessment, if obtained outside Canada.</p> <p>The Contractor must include a copy of the degree(s).</p>			

Resource Category: I.10 – Technical Architect – Level 3				
Name of Proposed Resource: _____				
Item	Mandatory Requirement	Met	Not Met	Cross Reference to the Proposal
MT4.1	<p>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:</p> <ul style="list-style-type: none"> • Gathering and documenting business requirements; • Developing Systems Architecture; 			

	<ul style="list-style-type: none"> • 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.). <p>Note: To qualify, a project must have a minimum duration of six (6) months</p> <p>To demonstrate compliance with all criteria, the Contractor must include the following information:</p> <ul style="list-style-type: none"> • Project name; • Client organization; • Project start /end dates and duration; • Project description; • Description of role and tasks performed by the resource • Client contact reference – email/phone number, role of the reference, how did the reference manage the contract in order to confirm? 			
<p>MT4.2</p>	<p>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:</p> <ul style="list-style-type: none"> • 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 <p>Note: To qualify, a project must have a minimum duration of six (6) months</p> <p>To demonstrate compliance with all criteria, the Contractor must include the following information:</p> <ul style="list-style-type: none"> • Project name; 			

	<ul style="list-style-type: none"> • Client organization; • Project start /end dates and duration; • Project description; • Description of role and tasks performed by the resource • Client contact reference – email/phone number, role of the reference, how did the reference manage the contract in order to confirm? 			
MT4.3	<p>The Contractor MUST demonstrate that the proposed resource has a minimum of eighteen (18) months' experience in the last five (5) years from the date of The Task Authorization request architecting and executing a solution to migrate an existing Enterprise-class secure* application or service to the cloud.</p> <p>*Secure is defined as meeting one of the following security control profiles:</p> <ul style="list-style-type: none"> o the Government of Canada Protected B Medium integrity Medium availability (PBMM). o FEDRAMP Moderate or High Level o ISO27001, ISO27017 and ISO27018 <p>Note: To qualify, a project must have a minimum duration of six (6) months</p> <p>To demonstrate compliance with all criteria, the Contractor must include the following information:</p> <ul style="list-style-type: none"> • Project name; • Client organization; • Project start /end dates and duration; • Project description; • Description of role and tasks performed by the resource • Client contact reference – email/phone number, role of the reference, how did the reference manage the contract in order to confirm? 			
MT4.4	<p>The Contractor MUST demonstrate that the proposed resource has a minimum of two (2) years' experience within the last ten (10) years from the date of The Task Authorization request, designing, developing (coding), testing, implementing and supporting application solutions.</p>			

	<p>To demonstrate compliance with all criteria, the Contractor must include the following information:</p> <ul style="list-style-type: none"> • Project name; • Client organization; • Project start /end dates and duration; • Project description; • Description of role and tasks performed by the resource • Client contact reference – email/phone number, role of the reference, how did the reference manage the contract in order to confirm? 			
MT4.5	<p>The Contractor MUST demonstrate that the proposed resource has:</p> <p>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):</p> <ul style="list-style-type: none"> • Azure Solutions Architect Expert • Amazon Solutions Architect Associate • Professional Cloud Architect (GCP) <p>A copy of the certificate(s) must be provided with the bid.</p>			

Resource Category: A.16 – Web Multi Media Content Consultant – Level 3				
Name of Proposed Resource: _____				
Item	Mandatory Requirement	Met	Not Met	Cross Reference to the Proposal
MT5.1	<p>The Contractor must demonstrate that the proposed resource has a minimum of ten (10) years of demonstrated experience within the last twelve (12) years (as of The Task Authorization request) working as a UX design consultant within *Large organizations tasked with the following;</p> <ul style="list-style-type: none"> • Conceptualizing and defining a strategy to adopt user centered design principles for a project or product development. 			

	<ul style="list-style-type: none"> • Developing innovative and practical user-centric design solutions. • Identifying tangible benefits to “sell” user experience designs to clients. <p>*Large organizations defined as Private or Public Sector and having 500 or more employees.</p> <p>To demonstrate compliance with all criteria, the Contractor must include the following information:</p> <ul style="list-style-type: none"> • Project name; • Client organization; • Project start /end dates and duration; • Project description; • Description of role and tasks performed by the resource • Client contact reference – email/phone number, role of the reference, how did the reference manage the contract in order to confirm? 			
<p>MT5.2</p>	<p>The Contractor must demonstrate that the proposed resource has a minimum of eight (8) years of demonstrated experience within the last ten (10) years (as of The Task Authorization request) working as a UX design consultant within *Large organizations tasked with all the following;</p> <ul style="list-style-type: none"> • Planning and Leading user centered design research activities (e.g User Interviews, usability testing, user observation, surveys), conducting evaluations or usability reviews and providing recommendations for improvising applications or websites. • Presenting and discussing user centered design findings and recommendations with project stakeholders and technical teams. • Incorporating Web Content Accessibility Guidelines (WCAG) into application designs and or Canada.ca templates. • Taking user research insights or business requirements and building product designs to meet business requirements, wireframes and static or interactive prototypes. 			

	<p style="text-align: center;">*Large organizations defined as Private or Public Sector and having 500 or more employees. .</p> <p>To demonstrate compliance with all criteria, the Contractor must include the following information:</p> <ul style="list-style-type: none"> • Project name; • Client organization; • Project start /end dates and duration; • Project description; • Description of role and tasks performed by the resource • Client contact reference – email/phone number, role of the reference, how did the reference manage the contract in order to confirm? 			
<p>MT5.3</p>	<p>The Contractor must demonstrate that the proposed resource has a minimum of eight (8) years of demonstrated experience within the last ten (10) years (as of The Task Authorization request) working as a UX design consultant within *Large organizations tasked with all the following;</p> <ul style="list-style-type: none"> • Analyzing and determining business rules, design interactions and flows. • Gathering and documenting user requirements (use cases or user stories) • Translating requirements into features and functionality for the organizations various platforms. <p>*Large organizations defined as Private or Public Sector and having 500 or more employees.</p> <p>To demonstrate compliance with all criteria, the Contractor must include the following information:</p> <ul style="list-style-type: none"> • Project name; • Client organization; • Project start /end dates and duration; • Project description; • Description of role and tasks performed by the resource 			

	<ul style="list-style-type: none"> Client contact reference – email/phone number, role of the reference, how did the reference manage the contract in order to confirm? 			
MT5.4	<p>The Contractor must demonstrate that the proposed resource has a minimum of eight (8) years of demonstrated experience within the last ten (10) years (as of The Task Authorization request) working as a UX design consultant within *Large organizations tasked with all the following:</p> <ul style="list-style-type: none"> Designing UX implementations that matured and improved the user experience when interacting with the organizations interfaces. Designing web user interfaces that used multi-page forms. <p>*Large organizations defined as Private or Public Sector and having 500 or more employees.</p> <p>To demonstrate compliance with all criteria, the Contractor must include the following information:</p> <ul style="list-style-type: none"> Project name; Client organization; Project start /end dates and duration; Project description; Description of role and tasks performed by the resource Client contact reference – email/phone number, role of the reference, how did the reference manage the contract in order to confirm? 			

Resource Category: A.6- Programmer/Software Developer (iOS/Android) – Level 3				
Name of Proposed Resource: _____				
Item	Mandatory Requirement	Met	Not Met	Cross Reference to the Proposal
MT6.1	<p>The Contractor MUST demonstrate that the Proposed Resource has a minimum of five (5) years' experience within the last ten (10) years from date of The Task Authorization request, designing, developing, testing and deploying code and software for a mobile application on the public cloud.</p> <p>Note: To qualify, a project must have a minimum duration of six</p>			

	<p>(6) months.</p> <p>To demonstrate compliance with all criteria, the Contractor must include the following information:</p> <ul style="list-style-type: none"> • Project name; • Client organization; • Project start /end dates and duration; • Project description; • Description of role and tasks performed by the resource • Client contact reference – email/phone number, role of the reference, how did the reference manage the contract in order to confirm? 			
<p>MT6.2</p>	<p>The Contractor MUST demonstrate that the Proposed Resource has a minimum of seven (10) years' experience within the last ten (10) years designing, developing and implementing mobile-based applications for two of the platforms below</p> <ul style="list-style-type: none"> • iOS • Android • Blackberry <p>Note: To qualify, a project must have a minimum duration of six (6) months.</p> <p>To demonstrate compliance with all criteria, the Contractor must include the following information:</p> <ul style="list-style-type: none"> • Project name; • Client organization; • Project start /end dates and duration; • Project description; • Description of role and tasks performed by the resource • Client contact reference – email/phone number, role of the reference, how did the reference manage the contract in order to confirm? 			
<p>MT6.3</p>	<p>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.</p>			

	<p>Note: To qualify, a project must have a minimum duration of six (6) months.</p> <p>To demonstrate compliance with all criteria, the Contractor must include the following information:</p> <ul style="list-style-type: none"> • Project name; • Client organization; • Project start /end dates and duration; • Project description; • Description of role and tasks performed by the resource • Client contact reference – email/phone number, role of the reference, how did the reference manage the contract in order to confirm? 			
<p>MT6.4</p>	<p>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:</p> <ul style="list-style-type: none"> • Biometric security models and multi-factor authentication, secure enclave processing; • Mobile device-based multi factor authentication; and • Cloud-based identity access management. <p>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.</p> <p>To demonstrate compliance with all criteria, the Contractor must include the following information:</p> <ul style="list-style-type: none"> • Project name; • Client organization; • Project start /end dates and duration; • Project description; • Description of role and tasks performed by the resource • Client contact reference – email/phone number, role of the reference, how did the reference manage the contract in order to confirm? 			

<p>MT6.5</p>	<p>The Contractor MUST demonstrate that the proposed resource has a minimum 5 years+ experience of developing mobile applications working with AWS or Azure clouds.</p> <p>Note: To qualify, a project must have a minimum duration of six (6) months.</p> <p>To demonstrate compliance with all criteria, the Contractor must include the following information:</p> <ul style="list-style-type: none"> • Project name; • Client organization; • Project start /end dates and duration; • Project description; • Description of role and tasks performed by the resource • Client contact reference – email/phone number, role of the reference, how did the reference manage the contract in order to confirm? 			
<p>MT6.6</p>	<p>The Contractor MUST demonstrate that the proposed resource has a minimum of more than 1 year of experience developing 3 or more mobile applications for the Government of Canada.</p> <ul style="list-style-type: none"> • More than 1 year experience developing Government mobile application integrated with public cloud services such as AWS or Azure • Led development of Government mobile application with more than 1 million users • Led development of Government mobile application with AA mobile accessibility <p>Note: To qualify, a project must have a minimum duration of six (6) months.</p> <p>To demonstrate compliance with all criteria, the Contractor must include the following information:</p> <ul style="list-style-type: none"> • Project name; • Client organization; • Project start /end dates and duration; • Project description; 			

	<ul style="list-style-type: none"> Description of role and tasks performed by the resource <p>Client contact reference – email/phone number, role of the reference, how did the reference manage the contract in order to confirm?</p>			
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Resource Category: A.14 - Web Developer - Level 3

Name of Proposed Resource: _____

Item	Mandatory Requirement	Met	Not Met	Cross Reference to the Proposal
MT7.1	<p>The Contractor must demonstrate that the proposed resource has ten plus (10+) years of demonstrated Web Developer experience tasked with the following responsibilities:</p> <ul style="list-style-type: none"> a) Analysis, design b) Coding, testing c) Implementation d) Support of web applications. <p>Note: A qualifying project will have a minimum duration of six (6) months.</p> <p>To demonstrate compliance with all criteria, the Contractor must include the following information:</p> <ul style="list-style-type: none"> • Project name; • Client organization; • Project start /end dates and duration; • Project description; • Description of role and tasks performed by the resource. • Client contact reference – email/phone number, role of the reference, how did the reference manage the contract in order to confirm? 			
MT7.2	<p>The Contractor must demonstrate that the proposed resource has a minimum of five (5) years' experience within the last ten (10) years developing web applications using the following development products:</p> <ul style="list-style-type: none"> a) Angular JS b) GitHub c) JQuery d) Sass <p>Note: A qualifying project will have a minimum duration of six (6) months.</p> <p>To demonstrate compliance with all criteria, the Contractor must include the following information:</p> <ul style="list-style-type: none"> • Project name; • Client organization; • Project start /end dates and duration; 			

	<ul style="list-style-type: none"> • Project description; • Description of role and tasks performed by the resource. • Client contact reference – email/phone number, role of the reference, how did the reference manage the contract in order to confirm? 			
MT7.3	<p>The Contractor must demonstrate that the proposed resource has a minimum of five (5) years' experience (within the last 10 years) using the following client/server-side technologies;</p> <ul style="list-style-type: none"> a) HTML b) CSS c) JavaScript libraries/frameworks d) AJAX <p>Note: A qualifying project will have a minimum duration of six (6) months.</p> <p>To demonstrate compliance with all criteria, the Contractor must include the following information:</p> <ul style="list-style-type: none"> • Project name; • Client organization; • Project start /end dates and duration; • Project description; • Description of role and tasks performed by the resource. • Client contact reference – email/phone number, role of the reference, how did the reference manage the contract in order to confirm? 			
MT7.4	<p>The Contractor must demonstrate that the proposed resource has a minimum of five (5) years' experience (within the last 10 years) using either Microsoft SQL Server (2016 minimum) or IBM Db2 tasked with the following;</p> <ul style="list-style-type: none"> a) Developing and maintaining scripts/code including queries, stored procedures, triggers and user functions. b) Relational database design, normalization, data manipulation and control. <p>Note: A qualifying project must have a minimum duration of six (6) months.</p> <p>To demonstrate compliance with all criteria, the Contractor must include the following information:</p> <ul style="list-style-type: none"> • Project name; • Client organization; • Project start /end dates and duration; • Project description; • Description of role and tasks performed by the resource. • Client contact reference – email/phone number, role of the reference, how did the reference manage the contract in order to confirm? 			
MT7.5	<p>The Contractor must demonstrate that the proposed resource has worked on at least two (2) relevant Provincial or Federal Government* web application projects' consulting assignments within the last five (5) years.</p>			

	<p>Each project must have a continuous (full time equivalent) work effort duration of six (6) months or greater and have a complimentary mobile application.</p> <p>*Government refers to federal or provincial level government within Canada</p> <p>Note: A qualifying project must have a minimum duration of six (6) months.</p> <p>To demonstrate compliance with all criteria, the Contractor must include the following information:</p> <ul style="list-style-type: none"> • Project name; • Client organization; • Project start /end dates and duration; • Project description; • Description of role and tasks performed by the resource. • Client contact reference – email/phone number, role of the reference, how did the reference manage the contract in order to confirm?. 			
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Resource Category P.11 Quality Assurance Specialist – Level 3

Name of Proposed Resource: _____

Item	Mandatory Requirement	Met	Not Met	Cross Reference to the Proposal
MT8.1	<p>The proposed resource must have a minimum of (2) years professional work experience within the last five (5) years on a large (Over 10 million Dollars) IM/IT Project to implement new legislative change for a Canadian and International Trademarks Legacy system performing all of the following;</p> <ul style="list-style-type: none"> • Conducting testing reviews and summarizing testing results • Defining, building and managing test environments. • Developing test strategies and plans • Leading Scum Meetings • Perform formal reviews of business requirements <p>Note: A qualifying project will have a minimum duration of six (6) months.</p> <p>To demonstrate compliance with all criteria, the Contractor must include the following information:</p> <ul style="list-style-type: none"> • Project name; • Client organization; • Project start /end dates and duration; • Project description; • Description of role and tasks performed by the resource. • Client contact reference – email/phone number, role of 			

	the reference, how did the reference manage the contract in order to confirm?			
MT8.2	<p>The Contractor must provide two (2) relevant Federal Government of Canada (including crown corporations and agencies) IT client references within the last ten (10) years where the proposed resource has worked as a Project Leader/Team Lead on Government of Canada (GoC) IT application development projects.</p> <p>Projects must have a minimum work effort duration of six (6) months or greater.</p> <p>Note: Each reference cited must be for a separate client organization. The client contact reference name cited must be a Government of Canada employee overseeing the output of the Work of the proposed resource.</p> <p>Note: A qualifying project must have a minimum duration of six (6) months.</p> <p>To demonstrate compliance with all criteria, the Contractor must include the following information:</p> <ul style="list-style-type: none"> • Project name; • Client organization; • Project start /end dates and duration; • Project description; • Description of role and tasks performed by the resource. • Client contact reference – email/phone number, role of the reference, how did the reference manage the contract in order to confirm? 			
MT8.3	<p>Contractor proposed resources must have a minimum of five (5) years' experience, within the last ten (10) years, performing 3 of the 5 below tasks in a IT application project:</p> <ul style="list-style-type: none"> • Demonstrated professional applications development work experience applying software development methodologies such as Agile, Waterfall. • Briefing senior management (Director level and/or above) • Coordinating functional and regression testing • Managing projects with multiple stakeholders • Leading and overseeing all user acceptance software testing requirements including, functional test in-line with requirements specification, and regression testing for specified iterations; <p>Note: A qualifying project must have a minimum duration of six (6) months.</p>			

	<p>To demonstrate compliance with all criteria, the Contractor must include the following information:</p> <ul style="list-style-type: none"> • Project name; • Client organization; • Project start /end dates and duration; • Project description; • Description of role and tasks performed by the resource. • Client contact reference – email/phone number, role of the reference, how did the reference manage the contract in order to confirm? 			
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Resource Category: A.1 –Application/Software Architect – Level 3				
Name of Proposed Resource: _____				
#	Point-Rated Requirement	Points Max	Points Grid	Demonstrated Experience Cross-reference to Proposal/Project# /Resume
RT1.1	<p>The Contractor should demonstrate that the proposed resource has:</p> <p>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;</p> <p>OR</p> <p>An equivalent Canadian academic credential assessment, if obtained outside Canada.</p> <p>A copy of the university degree, college diploma or academic credential assessment must be included with the Contractor’s response to the TA. The copy provided by the supplier must be a readable copy in English or French.</p>	10	<p>No Degree/Diploma = 0 points</p> <p>Degree/Diploma = 10 points</p> <p>Maximum 10 points</p>	
RT1.2	<p>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 MT1.4 performing the following tasks within a public cloud environment:</p> <ul style="list-style-type: none"> • Creating the conceptual, logical and physical designs for application architectures and their interoperability; • Researching, analyzing, 	20	<p>5+ years up to 6 years = 5 points</p> <p>6+ years up to 7 years = 10 points</p> <p>7+ years up to 8 years = 15 points</p> <p>More than 8 years = 20 points</p> <p>Maximum 20 points</p>	

	<p>recommending and selecting technical approaches to address challenging development and integration problems with application architectures; and</p> <ul style="list-style-type: none"> • Developing implementation plans for the deployment of application architectures <p>Note: A qualifying project must have a minimum duration of six (6) months.</p> <p>To demonstrate compliance with all criteria, the Contractor should include the following information:</p> <ul style="list-style-type: none"> • Project name; • Client organization; • Project start /end dates and duration; • Project description; • Description of role and tasks performed by the resource • Client contact reference – email/phone number, role of the reference, how did the reference manage the contract in order to confirm? 			
<p>RT1.3</p>	<p>The Contractor should demonstrate that the proposed resource has experience within the last twelve (12) years as an Application/Software Architect performing the following three (3) activities:</p> <p>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.</p> <p>To demonstrate compliance with all criteria, the Contractor must include the following information:</p> <ul style="list-style-type: none"> • Project name; • Client organization; • Project start /end dates and duration; 	<p>15</p>	<p><u>For each activity:</u></p> <p>Less than 1 year = 0 points</p> <p>1 year up to 3 years = 2 points</p> <p>3+ years up to 5 years = 4 points</p> <p>More than 5 years = 5 points</p> <p>*Each activity will be allocated up to a maximum of 5 points. Therefore the total points available for this criteria is 15 points for the 3 activities combined.</p>	

	<ul style="list-style-type: none"> • Project description; • Description of role and tasks performed by the resource • Client contact reference – email/phone number, role of the reference, how did the reference manage the contract in order to confirm? 			
RT1.4	<p>The Contractor should demonstrate that the proposed resource has experience within the last twelve (12) years as an Application / Software Architect performing the following four (4) activities:</p> <ul style="list-style-type: none"> • Incorporating serverless code in application architectures; • Designing scaling sets of virtual machines to keep costs low while still 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. <p>Note: A qualifying project must have a minimum duration of six (6) months.</p> <p>To demonstrate compliance with all criteria, the Contractor must include the following information:</p> <ul style="list-style-type: none"> • Project name; • Client organization; • Project start /end dates and duration; • Project description; • Description of role and tasks performed by the resource • Client contact reference – email/phone number, role of the reference, how did the reference manage the contract in order to confirm? 	20	<p><u>For each activity:</u></p> <p>Less than 1 year = 0 points</p> <p>1 year up to 3 years = 2 points</p> <p>3+ years up to 5 years = 4 points</p> <p>More than 5 years = 5 points</p> <p>*Each activity will be allocated up to a maximum of 5 points each. Therefore the total award of points for each activity is maximum 5 points . Total points available for this criteria is maximum 20 points for the 4 activities combined.</p> <p>Maximum 20 points</p>	
RT1.5	<p>The Contractor should demonstrate that the proposed resource has experience within the last twelve (12) years as an Application/Software Architect</p>	5	<p>0 projects = 0 points</p> <p>1+ project = 5 points</p>	

	<p>performing any of the following tasks:</p> <ul style="list-style-type: none"> a Developing deployment strategies for business intelligence tools within cloud architecture that address both structured and unstructured data; b Designing data warehouse-as-a-service solutions; c Designing data lakes that scale with ingested data but also discard data due to low value or if it contravenes policy to retain it <p>Note: A qualifying project must have a minimum duration of twelve (12) months.</p> <p>To demonstrate compliance with all criteria, the Contractor must include the following information:</p> <ul style="list-style-type: none"> • Project name; • Client organization; • Project start /end dates and duration; • Project description; • Description of role and tasks performed by the resource • Client contact reference – email/phone number, role of the reference, how did the reference manage the contract in order to confirm? 			
Maximum Available Points				70
Minimum Points Required				45
Contractor's Score				

Resource Category I.10 – Technical Architect Mobile – Level 3

Name of Proposed Resource: _____

#	Point-Rated Requirement	Points Max	Points Grid	Demonstrated Experience Cross-reference to Proposal/Project# /Resume
RT2.1	<p>The Contractor should demonstrate that the proposed resource has:</p> <p>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</p> <p>An equivalent Canadian academic credential assessment, if obtained outside Canada.</p> <p>A copy of the university degree, college diploma or academic credential assessment must be included with the Contractor's response. The copy must be a readable copy in English or French</p>	10	<p>No Degree/Diploma = 0 points</p> <p>Degree/Diploma = 10 points</p>	
RT2.2	<p>The Contractor should demonstrate that the proposed resource has experience in developing applications for iOS, Android or BlackBerry developed using Swift, Objective C, Java, Kotlin</p> <p>To demonstrate compliance with all criteria, the Contractor should include the following information:</p> <ul style="list-style-type: none"> • Project name; • Client organization; • Project start /end dates and duration; • Project description; • Description of role and tasks performed by the resource • Client contact reference – 	20	<p>10 – 14 years = 5 points</p> <p>14 -19 years = 10 points</p> <p>19+ years = 20 points</p>	

	email/phone number, role of the reference, how did the reference manage the contract in order to confirm?			
RT2.3	<p>The Contractor should demonstrate that the proposed resource has experience within the last ten (10) years as a Technical Architect performing the following activities from the date of The Task Authorization request:</p> <ul style="list-style-type: none"> • Incorporating serverless code in application architectures; • Designing scaling sets of virtual machines to keep costs low while still 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 	20	<p><u>For each activity:</u></p> <p>Less than 1 year = 0 points</p> <p>1 year up to 3 years = 2 points</p> <p>3+ years up to 5 years = 4 points</p> <p>More than 5 years = 5 points</p> <p>*To be very clear each Activity will be allocated up to a maximum of 5 points each for the 4 activities. Therefore the total award of points for each activity is maximum 5 points each. Total points available for this criteria is maximum 20 points for the 4 activities combined.</p>	
Maximum Available Points				50
Minimum Points Required				35
Contractor's Score				

Resource Category: I.5 – IM Architect – Data/AI – Level 3

Name of Proposed Resource: _____

#	Point-Rated Requirement	Points Max	Points Grid	Demonstrated Experience Cross-reference to Proposal/Project# /Resume
<p>RT 3.1</p>	<p>The Contractor should demonstrate that the proposed resource has experience in excess of the mandatory minimum 5 years requirement in MT3.1 performing all of the following activities:</p> <ul style="list-style-type: none"> • 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 / visualization plans to support high-quality, fact-based business decisions. <p>Note: A qualifying project must have a minimum duration of six (6) months</p> <p>To demonstrate compliance with all criteria, the Contractor should include the following information:</p> <ul style="list-style-type: none"> • Project name; • Client organization; 	<p>20</p>	<p>5+ years up to 6 years = 5 points</p> <p>6+ years up to 7 years = 10 points</p> <p>7+ years up to 8 years = 15 points</p> <p>More than 8 years = 20 points</p>	

	<ul style="list-style-type: none"> • Project start /end dates and duration; • Project description; • Description of role and tasks performed by the resource • Client contact reference – email/phone number 			
RT 3.2	<p>The Contractor should demonstrate that the proposed resource has experience in excess of the mandatory minimum 5 years requirement in MT3.2 performing five or more of the following activities:</p> <ul style="list-style-type: none"> • 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 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 <p>Note: A qualifying project must have a minimum duration of six (6) months.</p> <p>To demonstrate compliance with all criteria, the Contractor must include the following information:</p> <ul style="list-style-type: none"> • Project name; • Client organization; • Project start /end dates and 	<p>20</p>	<p>5+ years up to 6 years = 5 points</p> <p>6+ years up to 7 years = 10 points</p> <p>7+ years up to 8 years = 15 points</p> <p>More than 8 years = 20 points</p>	

	<p>duration;</p> <ul style="list-style-type: none"> • Project description; • Description of role and tasks performed by the resource. • Client contact reference – email/phone number, role of the reference, how did the reference manage the contract in order to confirm? 			
RT 3.3	<p>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:</p> <p>Note: A qualifying project must have a minimum duration of six (6) months.</p> <p>To demonstrate compliance with all criteria, the Contractor must include the following information:</p> <ul style="list-style-type: none"> • Project name; • Client organization; • Project start /end dates and duration; • Project description; • Description of role and tasks performed by the resource. • Client contact reference – email/phone number, role of the reference, how did the reference manage the contract in order to confirm? 	20	<p>Less than 2 years = 0 points</p> <p>2 years up to 5 years = 5 points</p> <p>5+ years up to 6 years = 10 points</p> <p>6+ years up to 7 years = 15 points</p> <p>More than 7 years = 20 points</p>	
RT 3.4	<p>The Contractor should demonstrate that the proposed resource has experience within the last ten (10) years from the date of The Task Authorization request: performing the following tasks:</p> <ul style="list-style-type: none"> • Developing strategies to develop and filter data sets related to macroeconomic models within Data Lakes; and • Developing visualizations relating to macroeconomic models. 	20	<p>Less than 2 years = 0 points</p> <p>2 years up to 5 years = 5 points</p> <p>5+ years up to 6 years = 10 points</p> <p>6+ years up to 7 years = 15 points</p> <p>More than 7 years = 20</p>	

	<p>Note: A qualifying project will have a minimum duration of six (6) months.</p> <p>To demonstrate compliance with all criteria, the Contractor should include the following information:</p> <ul style="list-style-type: none"> • Project name; • Client organization; • Project start /end dates and duration; • Project description; • Description of role and tasks performed by the resource. • Client contact reference – email/phone number, role of the reference, how did the reference manage the contract in order to confirm? 		points	
<p>RT 3.5</p>	<p>The Contractor should demonstrate that the proposed resource has experience within the last ten (10) years from the date of The Task Authorization request: performing the following tasks:</p> <ul style="list-style-type: none"> • 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 <p>Note: A qualifying project will have a minimum duration of six (6) months.</p> <p>To demonstrate compliance with all criteria, the Contractor should include the following information:</p> <ul style="list-style-type: none"> • Project name; • Client organization; • Project start /end dates and duration; 	<p>20</p>	<p>Less than 2 years = 0 points</p> <p>2+ years up to 5 years = 5 points</p> <p>5+ years up to 6 years = 10 points</p> <p>6+ years up to 7 years = 15 points</p> <p>More than 7 years = 20 points</p>	

	<ul style="list-style-type: none"> Project description; Description of role and tasks performed by the resource. Client contact reference – email/phone number, role of the reference, how did the reference manage the contract in order to confirm? 			
RT 3.6	<p>The Contractor should demonstrate that the proposed resource has completed or obtained:</p> <p>A post-graduate diploma, post-graduate certificate or industry certification related to any of the following:</p> <ul style="list-style-type: none"> Data Science; Machine Learning Artificial Intelligence Natural Language Programming <p>The Contractor must include a copy of the diploma(s) or certificate(s).</p>	10	<p>No diploma/certificate = 0 points</p> <p>1+ post-graduate diploma/certificate = 10 points</p>	
Maximum Available Points				110
Minimum Points Required				71
Contractor's Score				

Resource Category: I.10 – Technical Architect – Level 3				
Name of Proposed Resource: _____				
#	Point-Rated Requirements	Points Max	Points Grid	Demonstrated Experience Cross-reference to Proposal/Project# /Resume
RT4.1	<p>The Contractor should demonstrate that the proposed resource has:</p> <p>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</p> <p>An equivalent Canadian academic credential assessment, if obtained outside Canada.</p> <p>A copy of the university degree, college diploma or academic credential</p>	10	<p>No Degree/Diploma = 0 points</p> <p>Degree/Diploma = 10 points</p>	

	<p>assessment must be included with the Contractor response. The copy must be a readable copy in English or French.</p>			
<p>RT4.2</p>	<p>The Contractor should demonstrate that the proposed resource has experience performing the following tasks supporting Legacy-to-Cloud application migration projects:</p> <ul style="list-style-type: none"> • Collecting relevant data on customers' 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 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. <p>Note: A qualifying project must have a minimum duration of twelve (12) months and contain completion of at least three</p>	<p>30</p>	<p>Note: There are 6 points per project up to maximum of 5 projects (30 points maximum).</p> <p>*1 point for each area of experience up to a maximum of 6 points for each project.</p> <p>5 projects x up to 6 points for each project up to a maximum of 30 points available</p>	

	<p>of the listed tasks.</p> <p>To demonstrate compliance with all criteria, the Contractor must include the following information:</p> <ul style="list-style-type: none"> • Project name; • Client organization; • Project start /end dates and duration; • Project description; • Description of role and tasks performed by the resource. • Client contact reference – email/phone number, role of the reference, how did the reference manage the contract in order to confirm? 			
<p>RT4.3</p>	<p>The Contractor should demonstrate that the proposed resource has experience with large or complex* data migrations including five or more of the following tasks:</p> <ul style="list-style-type: none"> • Developing the strategy • Creating the plan • Analyzing data quality • Resolving data issues • Validating accuracy, performance, accessibility, security and reliability • Loading • Switch-over • Optimization <p>* 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.</p> <p>Note: A qualifying project must have a minimum duration of six (6) months.</p> <p>To demonstrate compliance with all criteria, the Contractor must include the following information:</p> <ul style="list-style-type: none"> • Project name; • Client organization; • Project start /end dates and duration; • Project description; • Description of role and tasks performed by the resource. • Client contact reference – email/phone number, role of the 	<p>20</p>	<p>Up to 10 points for demonstration of tasks as follows:</p> <p>5 to 6 tasks = 5 points</p> <p>7 to 8 tasks = 10 points</p> <p>Up to 10 points for the number of years of experience as follows:</p> <p>1 year up to 3 years = 2 points</p> <p>3+ years up to 4 years = 5 points</p> <p>4+ years up to 5 years = 8 points</p> <p>More than 5 years = 10 points</p>	

	reference, how did the reference manage the contract in order to confirm?			
RT4.4	<p>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.</p> <p>Note: A qualifying project must have a minimum duration of six (6) months.</p> <p>To demonstrate compliance with all criteria, the Contractor must include the following information:</p> <ul style="list-style-type: none"> • Project name; • Client organization; • Project start /end dates and duration; • Project description; • Description of role and tasks performed by the resource. • Client contact reference – email/phone number, role of the reference, how did the reference manage the contract in order to confirm? 	15	<p>1 project = 3 points</p> <p>2 projects = 6 points</p> <p>3 projects = 10 points</p> <p>4 or more projects = 15 points</p>	
RT4.5	<p>The Contractor should demonstrate that the proposed resource has experience with one of the following activities and tasks in a Cloud environment:</p> <ul style="list-style-type: none"> • 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. <p>Note: A qualifying project must have a minimum duration of twelve (12) months.</p> <p>To demonstrate compliance with all criteria, the Contractor must include the following information:</p> <ul style="list-style-type: none"> • Project name; • Client organization; • Project start /end dates and duration; • Project description; • Description of role and tasks performed by the resource. • Client contact reference – 	5	<p>0 projects = 0 points</p> <p>1 or more projects = 5 points</p>	

	email/phone number, role of the reference, how did the reference manage the contract in order to confirm?			
Maximum Available Points				80
Minimum Points Required				52
Contractor's Score				

Resource Category: A.16 – Web Multi Media Content Consultant – Level 3

Name of Proposed Resource: _____

#	Point-Rated Requirement	Points Max	Points Grid	Demonstrated Experience Cross-reference to Proposal/Project# /Resume
RT5.1	<p>The Contractor should demonstrate the proposed resource's work experience as a UX design consultant was tasked with the following;</p> <ul style="list-style-type: none"> Creating and delivering presentations and reports on user experience implementation and user focus groups to *Executives. <p>*Executives defined as Director level and above</p> <p>To demonstrate compliance with all criteria, the Contractor should include the following information:</p> <ul style="list-style-type: none"> Project name; Client organization; Project start /end dates and duration; Project description; Description of role and tasks performed by the resource Client contact reference – email/phone number, role of the reference, how did the reference manage the contract in order to confirm? 	20	<p>less than 2 years = 0 points</p> <p>more than 2 years up to 3 years = 8 points</p> <p>more than 3 years up to 4 years = 12 points</p> <p>more than 4 years up to 5 years = 16 points</p> <p>more than 5 years = 20 points</p>	
RT5.2	<p>The Contractor should demonstrate the proposed resource's work experience as a UX design consultant tasked with;</p>	20	less than 5 years = 0 points	

	<ul style="list-style-type: none"> Mentoring internal teams 1 on 1 and via group coaching on UX design, information presentation and implementation. <p>To demonstrate compliance with all criteria, the Contractor should include the following information:</p> <ul style="list-style-type: none"> Project name; Client organization; Project start /end dates and duration; Project description; Description of role and tasks performed by the resource. Client contact reference – email/phone number, role of the reference, how did the reference manage the contract in order to confirm? 		<p>more than 5 years up to 6 years = 8 points</p> <p>more than 6 years up to 7 years = 12 points</p> <p>more than 7 years up to 8 years = 16 points</p> <p>more than 8 years = 20 points</p>	
RT5.3	<p>The Contractor should demonstrate the proposed resource’s work experience implementing Web Standards for all the following:</p> <ul style="list-style-type: none"> Accessibility; Usability; Optimizing Websites and Applications for Mobile Devices <p>To demonstrate compliance with all criteria, the Contractor should include the following information:</p> <ul style="list-style-type: none"> Project name; Client organization; Project start /end dates and duration; Project description; Description of role and tasks performed by the resource. Client contact reference – email/phone number, role of the reference, how did the reference manage the contract in order to confirm? 	20	<p>less than 2 years = 0 points</p> <p>more than 2 years up to 3 years = 8 points</p> <p>more than 3 years up to 4 years = 12 points</p> <p>more than 4 years up to 5 years = 16 points</p> <p>more than 5 years = 20 points</p>	
RT5.4	<p>The Contractor should demonstrate the proposed resource’s work experience with the following:</p> <ul style="list-style-type: none"> Facilitating user research or design sessions with large groups including external stakeholders. 	20	<p>less than 2 years = 0 points</p> <p>more than 2 years up to 3 years = 8 points</p> <p>more than 3 years up to 4 years = 12 points</p> <p>more than 4 years up to 5 years = 16 points</p> <p>more than 5 years = 20 points</p>	

	<p>To demonstrate compliance with all criteria, the Contractor should include the following information:</p> <ul style="list-style-type: none"> • Project name; • Client organization; • Project start /end dates and duration; • Project description; • Description of role and tasks performed by the resource. • Client contact reference – email/phone number, role of the reference, how did the reference manage the contract in order to confirm? 			
RT5.5	<p>The Contractor should demonstrate that the proposed resource holds;</p> <ul style="list-style-type: none"> • A degree, diploma or certificate in visual design, web design, design thinking, industrial design or related design field. The Contractor should provide proof of education completion from a recognized Canadian university or college, or the equivalent as established by a recognized Canadian academic credentials assessment service, if obtained outside of Canada <p>A Copy of any degree, certificate or diploma must be provided with the Contractor response.</p>	5	<p>No certificate/diploma/degree = 0 points</p> <p>Certificate/degree/diploma = 5 points</p>	
Maximum Available Points				85
Minimum Points Required				59
Contractor's Score				

Resource Category: A.6- Programmer/Software Developer (iOS/Android) – Level 3				
Name of Proposed Resource: _____				
#	Point-Rated Requirement	Points Max	Points Grid	Demonstrated Experience Cross-reference to Proposal/Project # /Resume

RT6.1	<p>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 mobile application on the public cloud</p> <p>Note: A qualifying project must have a minimum duration of six (6) months</p> <p>To demonstrate compliance with all criteria, the Contractor should include the following information:</p> <ul style="list-style-type: none"> • Project name; • Client organization; • Project start /end dates and duration; • Project description; • Description of role and tasks performed by the resource • Client contact reference – email/phone number, role of the reference, how did the reference manage the contract in order to confirm? 	20	<p>5+ years to 6 years = 8 points</p> <p>6+ years to 7 years = 12 points</p> <p>7+ years to 8 years = 16 points</p> <p>More than 8 years = 20 points</p>	
RT6.2	<p>The Contractor should demonstrate that the proposed resource has:</p> <p>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):</p> <ul style="list-style-type: none"> • AWS Certified Developer • Azure Developer Associate • Google Professional Cloud Developer <p>Note: A copy of the certification must be provided.</p>	10	<p>No Certifications = 0 points</p> <p>1 or more Certifications = 10 points</p>	
RT6.3	<p>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:</p> <ul style="list-style-type: none"> • Mobile computing • Artificial Intelligence or Machine Learning • Biometrics <p>Note: A qualifying project must have a minimum duration of twelve</p>	6	<p>0 projects = 0 points</p> <p>1 project = 2 points</p> <p>2 projects = 4 points</p> <p>3 or more projects = 6 points</p>	

	<p>(12) months</p> <p>Projects should be fully described including the platform, technology and specific features/functionalities (high-level) deployed.</p> <p>To demonstrate compliance with all criteria, the Contractor should include the following information:</p> <ul style="list-style-type: none"> • Project name; • Client organization; • Project start /end dates and duration; • Project description; • Description of role and tasks performed by the resource. • Client contact reference – email/phone number, role of the reference, how did the reference manage the contract in order to confirm? 			
<p>RT6.4</p>	<p>The Contractor should demonstrate that the proposed resource has experience designing, developing, testing and deploying code and software for mobile application solutions including the following:</p> <ul style="list-style-type: none"> • 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 <p>Note: A qualifying project must have a minimum duration of six (6) months.</p> <p>Projects should be described including the architecture, data collected (including source/method) and processing functionality (ies) deployed.</p> <p>To demonstrate compliance with all criteria, the Contractor should include the following information:</p> <ul style="list-style-type: none"> • Project name; • Client organization; 	<p>10</p>	<p>Less than 3 years = 0 points</p> <p>3 years up to 4 years = 6 points</p> <p>4+ years up to 5 years = 8 points</p> <p>More than 5 years = 10 points</p>	

	<ul style="list-style-type: none"> • Project start /end dates and duration; • Project description; • Description of role and tasks performed by the resource. • Client contact reference – email/phone number, role of the reference, how did the reference manage the contract in order to confirm? 			
RT6.5	<p>The Contractor should demonstrate that the proposed resource has experience designing, developing and implementing mobile applications using the following languages:</p> <ul style="list-style-type: none"> • Swift, • Objective C • Java, • Kotlin • Angular <p>Note: A qualifying project must have a minimum duration of six (6) months.</p> <p>To demonstrate compliance with all criteria, the Contractor should include the following information:</p> <ul style="list-style-type: none"> • Project name; • Client organization; • Project start /end dates and duration; • Project description; • Description of role and tasks performed by the resource. • Client contact reference – email/phone number, role of the reference, how did the reference manage the contract in order to confirm? 	20	<p>Less than 5 years = 0 points</p> <p>6 years up to 7 years = 5 points</p> <p>8+ years up to 9 years = 10 points</p> <p>10+ years up to 14 years = 15 points</p> <p>More than 15 years = 20 points</p>	
RT6.6	<p>The Contractor should demonstrate that the proposed resource has experience in reverse engineering legacy software applications created in one or more of the following:</p> <ul style="list-style-type: none"> • COBOL (Mainframe) • C/C++ • J2EE <p>Note: A qualifying project must have a minimum duration of six (6) months.</p>	5	<p>Less than 1 year = 0 points</p> <p>More than 1 year = 5 points</p>	

RT6.7	<p>The Contractor should demonstrate that the proposed resource has experience developing and deploying mobile applications using AWS tools.</p> <p>Note: A qualifying project must have a minimum duration of six (6) months.</p> <p>To demonstrate compliance with all criteria, the Contractor should include the following information:</p> <ul style="list-style-type: none"> • Project name; • Client organization; • Project start /end dates and duration; • Project description; • Description of role and tasks performed by the resource. • Client contact reference – email/phone number, role of the reference, how did the reference manage the contract in order to confirm? 	4	<p>Less than 1 year = 0 points</p> <p>1 year up to 3 years = 2 points</p> <p>More than 5 years = 4 points</p>	
RT6.8	<p>The Contractor should demonstrate that the proposed resource has:</p> <p>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</p> <p>An equivalent Canadian academic credential assessment, if obtained outside Canada.</p> <p>A copy of the university degree, college diploma or academic credential assessment must be included with the Contractor's response to the TA. The copy must be a readable copy in English or French.</p>	5	<p>No Degree/Diploma= 0 points</p> <p>Degree/Diploma = 5 points</p>	
Maximum Available Points				80
Minimum Points Required				56
Contractor's Score				

Resource Category: A.14 - Web Developer - Level 3

Name of Proposed Resource: _____

#	Point-Rated Requirement	Points Max	Points Grid	Demonstrated Experience Cross-reference to Proposal/Project# /Resume
RT7.1	<p>The Contractor should demonstrate the proposed resource's professional experience within the last ten (10) years developing web applications using the following client/server -side technologies (as per MT2.3)</p> <ul style="list-style-type: none"> a) HTML b) CSS c) JavaScript d) AJAX <p>Note: A qualifying project will have a minimum duration of six (6) months.</p> <p>To demonstrate compliance with all criteria, the Contractor should include the following information:</p> <ul style="list-style-type: none"> • Project name; • Client organization; • Project start /end dates and duration; • Project description; • Description of role and tasks performed by the resource. • Client contact reference – email/phone number, role of the reference, how did the reference manage the contract in order to confirm? 	20	<p>less than 5 years = 0 points more than 5 years up to 7 years = 5 points more than 7 years up to 8 years = 10 points more than 8 years up to 9 years = 15 points more than 9 years = 20 points</p>	
RT7.2	<p>The Contractor should demonstrate the resource's professional work experience as a web developer within the Federal Government of Canada designing, developing, modifying, enhancing and testing web projects/applications that complied with government web application standards and/or guidelines.</p> <p>Note: A qualifying project must have a minimum duration of six (6) months.</p> <p>To demonstrate compliance with all criteria, the Contractor should include the following information:</p> <ul style="list-style-type: none"> • Project name; • Client organization; • Project start /end dates and 	20	<p>less than 1 year = 0 points more than 1 year up to 2 years = 5 points more than 2 years up to 3 years = 10 points more than 3 years up to 4 years = 15 points more than 4 years = 20 points</p>	

	<p>duration;</p> <ul style="list-style-type: none"> • Project description; • Description of role and tasks performed by the resource. • Client contact reference – email/phone number, role of the reference, how did the reference manage the contract in order to confirm? 			
RT7.3	<p>The Contractor should demonstrate the resource’s professional work experience within the last ten (10) years, participating in user interface design sessions, recommending and applying user interface principles, content organization, page flows, interaction design and navigation schemes</p> <p>Note: A qualifying project must have a minimum duration of six (6) months.</p> <p>To demonstrate compliance with all criteria, the Contractor should include the following information:</p> <ul style="list-style-type: none"> • Project name; • Client organization; • Project start /end dates and duration; • Project description; • Description of role and tasks performed by the resource. • Client contact reference – email/phone number, role of the reference, how did the reference manage the contract in order to confirm? 	20	<p>less than 2 years = 0 points</p> <p>more than 2 years up to 3 years = 5 points</p> <p>more than 3 years up to 4 years = 10 points</p> <p>more than 4 years up to 5 years = 15 points</p> <p>more than 5 years = 20 points</p>	
RT7.4	<p>The Contractor should demonstrate the resource’s professional work experience within the last ten (10) years, writing the following technical documents;</p> <ul style="list-style-type: none"> - Design Specifications, - IT Functional Specifications, - System/Process flowcharts. - <p>Note: A qualifying project must have a minimum duration of six (6) months.</p> <p>To demonstrate compliance with all criteria, the Contractor should include the following information:</p> <ul style="list-style-type: none"> • Project name; • Client organization; • Project start /end dates and duration; 	20	<p>less than 2 years = 0 points</p> <p>more than 2 years up to 3 years = 5 points</p> <p>more than 3 years up to 4 years = 10 points</p> <p>more than 4 years up to 5 years = 15 points</p> <p>more than 5 years = 20 points</p>	

	<ul style="list-style-type: none"> • Project description; • Description of role and tasks performed by the resource. • Client contact reference – email/phone number, role of the reference, how did the reference manage the contract in order to confirm? 			
RT7.5	<p>The Contractor should demonstrate the resource's professional work experience within the last ten (10) years,, researching and/or applying current trends, methodologies, standards, practices and/or products in a web development environment.</p> <p>Note: A qualifying project must have a minimum duration of six (6) months.</p> <p>To demonstrate compliance with all criteria, the Contractor should include the following information:</p> <ul style="list-style-type: none"> • Project name; • Client organization; • Project start /end dates and duration; • Project description; • Description of role and tasks performed by the resource. • Client contact reference – email/phone number, role of the reference, how did the reference manage the contract in order to confirm? 	20	<u>Evaluation Breakdown:</u> less than 2 years = 0 points more than 2 years up to 3 years = 5 points more than 3 years up to 4 years = 10 points more than 4 years up to 5 years = 15 points more than 5 years = 20 points	
Minimum Pass Mark				100
Minimum Points Required				70
Contractor's Score				

Resource Category: P.11 Quality Assurance Specialist – Level 3

Name of Proposed Resource: _____

#	Point-Rated Requirement	Points Max	Points Grid	Demonstrated Experience Cross-reference to Proposal/Project# /Resume
RT8.1	<p>The Contractor should clearly substantiate and demonstrate that the proposed resource has a minimum of five (5) years' experience in the past ten (10) years:</p> <ul style="list-style-type: none"> • Demonstrated professional applications development work experience applying software development methodologies such as Agile, Waterfall, etc • Briefing senior management (Director level and/or above) <p>Note: A qualifying project must have a minimum duration of six (6) months.</p> <p>To demonstrate compliance with all criteria, the Contractor should include the following information:</p> <ul style="list-style-type: none"> • Project name; • Client organization; • Project start /end dates and duration; • Project description; • Description of role and tasks performed by the resource. • Client contact reference – email/phone number, role of the reference, how did the reference manage the contract in order to confirm? 	20	<p>Less than 60 months= 0 pts</p> <p>60 to 83 months= 5 pts</p> <p>84 to 107 months= 10 pts</p> <p>108 to 119 months= 15 pts</p> <p>Greater than 120 months = 20 points</p>	
RT8.2	<p>The Contractor should clearly demonstrate that the proposed resource has professional work experience chairing and facilitating meetings with project stakeholders and technical teams in order to review, clarify and confirm project deliverables such as requirements, technical documents and prototypes in 5 years' experience within the</p>	20	<p>Less than 60 months= 0 pts</p> <p>60 to 83 months= 2 pts</p> <p>84 to 107 months= 4 pts</p> <p>108 to 119 months= 6 pts</p>	

	<p>past ten (10) years.</p> <p>Note: A qualifying project must have a minimum duration of six (6) months.</p> <p>To demonstrate compliance with all criteria, the Contractor should include the following information:</p> <ul style="list-style-type: none"> • Project name; • Client organization; • Project start /end dates and duration; • Project description; • Description of role and tasks performed by the resource. • Client contact reference – email/phone number, role of the reference, how did the reference manage the contract in order to confirm? 		<p>Greater than 120 months = 10 points</p>	
<p>RT8.3</p>	<p>The Contractor should clearly substantiate and demonstrate that the proposed resource has a minimum of five (5) years' experience in the past ten (10) years from the date of The Task Authorization request:</p> <ul style="list-style-type: none"> • Coordinating functional and regression testing • Managing projects with multiple stakeholders <p>Note: A qualifying project must have a minimum duration of six (6) months.</p> <p>To demonstrate compliance with all criteria, the Contractor should include the following information:</p> <ul style="list-style-type: none"> • Project name; • Client organization; • Project start /end dates and duration; • Project description; • Description of role and tasks 	<p>10</p>	<p>Less than 60 months= 0 pts</p> <p>60 to 83 months= 2 pts</p> <p>84 to 107 months= 4 pts</p> <p>108 to 119 months= 6 pts</p> <p>Greater than 120 months = 10 points</p>	

	<p>performed by the resource.</p> <ul style="list-style-type: none"> Client contact reference – email/phone number, role of the reference, how did the reference manage the contract in order to confirm? 			
RT8.4	<p>The Contractor should clearly substantiate and demonstrate that the proposed resource has a minimum of five (5) years' experience in the past ten (10) years:</p> <p>Developing test approaches, test plans, schedule (MS Project, JIRA) and provided estimates to support Legacy, N-tier and web application development</p> <p>Note: A qualifying project must have a minimum duration of six (6) months.</p> <p>To demonstrate compliance with all criteria, the Contractor should include the following information:</p> <ul style="list-style-type: none"> Project name; Client organization; Project start /end dates and duration; Project description; Description of role and tasks performed by the resource. Client contact reference – email/phone number, role of the reference, how did the reference manage the contract in order to confirm? 	20	<p>Less than 60 months= 0 pts</p> <p>60 to 83 months= 5 pts</p> <p>84 to 107 months= 10 pts</p> <p>108 to 119 months= 15 pts</p> <p>Greater than 120 months = 20 points</p>	
RT8.5	<p>The Contractor should clearly substantiate and demonstrate that the proposed resource has a minimum of five (5) years' experience in the past ten (10) years :</p> <ul style="list-style-type: none"> Leading and overseeing all user acceptance software testing requirements including, functional test in-line with requirements specification, and regression testing for specified iterations <p>Note: A qualifying project must have a minimum duration of six (6) months.</p>	20	<p>Less than 60 months= 0 pts</p> <p>60 to 83 months= 5 pts</p> <p>84 to 107 months= 10 pts</p> <p>108 to 119 months= 15 pts</p> <p>Greater than 120 months = 20 points</p>	

	<p>To demonstrate compliance with all criteria, the Contractor should include the following information:</p> <ul style="list-style-type: none"> • Project name; • Client organization; • Project start /end dates and duration; • Project description; • Description of role and tasks performed by the resource. • Client contact reference – email/phone number, role of the reference, how did the reference manage the contract in order to confirm? 			
Minimum Pass Mark				90
Minimum Points Required				63
Contractor's Score				

APPENDIX D TO ANNEX A

CERTIFICATIONS AT THE TA STAGE

The following Certifications are to be used, as applicable. If they apply, they must be signed and attached to the Contractor's quotation when it is submitted to Canada.

1. CERTIFICATION OF EDUCATION AND EXPERIENCE

The Contractor certifies that all the information provided in the résumés and supporting material proposed for completing the subject work, particularly the information pertaining to education, achievements, experience and work history, has been verified by the Contractor to be true and accurate. Furthermore, the Contractor warrants that every individual proposed by the Contractor for the requirement is capable of performing the Work described in the Task Authorization.

Print name of authorized individual & sign above

Date

2. CERTIFICATION OF AVAILABILITY OF PERSONNEL

The Contractor certifies that, should it be authorized to provide services under this Task Authorization, the persons proposed in the quotation will be available to commence performance of the work within a reasonable time from the date of issuance of the valid Task Authorization, or within the time specified in the TA Form, and will remain available to perform the work in relation to the fulfillment of the requirement.

Print name of authorized individual & sign above

Date

3. CERTIFICATION OF STATUS OF PERSONNEL

If the Contractor has proposed any individual who is not an employee of the Contractor, the Contractor certifies that it has permission from that individual to propose his/her services in relation to the Work to be performed under this TA and to submit his/her résumé to Canada. At any time during the Contract Period the Contractor must, upon request from the Contracting Authority, provide the written confirmation, signed by the individual, of the permission that was given to the Contractor of his/her availability. Failure to comply with the request may result in a default under the Contract in accordance with the General Conditions.

Print name of authorized individual & sign above

Date

4. CERTIFICATION OF LANGUAGE - English

The Contractor certifies that the proposed resource(s) in response to this draft Task Authorization is/are fluent in English. The individual(s) proposed must be able to communicate orally and in writing in English without any assistance and with minimal errors.

Print name of authorized individual & sign above

Date

ANNEX B - BASIS OF PAYMENT

CONTRACT PERIOD:				
Date of Contract Award to three years later				
Resource Category	Level of Expertise	Firm Per Diem Rate		
		Year 1	Year 2	Year 3
A.1 Application/Software Architect	Level 3			
I.5 IM Architect – Cloud	Level 3			
I.10 Technical Architect	Level 3			
I.5 IM Architect – Data/ AI	Level 3			
I.10 Technical Architect - Mobile	Level 3			
A.16 Web Multi Media Content Consultant	Level 3			
A.6 Programmer / Software Developer (iOS/Android)	Level 3			
A.14 Web Developer	Level 3			
P.11 Quality Assurance Specialist / Analyst	Level 3			

ANNEX C - SECURITY REQUIREMENTS CHECK LIST

COMMON-PS-SRCL#6



Government of Canada / Gouvernement du Canada

Contract Number / Numéro du contrat 1000360966
Security Classification / Classification de sécurité UNCLASSIFIED

SECURITY REQUIREMENTS CHECK LIST (SRCL) LISTE DE VÉRIFICATION DES EXIGENCES RELATIVES À LA SÉCURITÉ (LVERS)

PART A - CONTRACT INFORMATION / PARTIE A - INFORMATION CONTRACTUELLE			
1. Originating Government Department or Organization / Ministère ou organisme gouvernemental d'origine		2. Branch or Directorate / Direction générale ou Direction	
CBSA		ISTB	
3. a) Subcontract Number / Numéro du contrat de sous-traitance		3. b) Name and Address of Subcontractor / Nom et adresse du sous-traitant	
4. Brief Description of Work / Brève description du travail IT Pro Services - Covid19			
5. a) Will the supplier require access to Controlled Goods? Le fournisseur aura-t-il accès à des marchandises contrôlées?		<input checked="" type="checkbox"/> No Non	<input type="checkbox"/> Yes Oui
5. b) Will the supplier require access to unclassified military technical data subject to the provisions of the Technical Data Control Regulations? Le fournisseur aura-t-il accès à des données techniques militaires non classifiées qui sont assujetties aux dispositions du Règlement sur le contrôle des données techniques?		<input checked="" type="checkbox"/> No Non	<input type="checkbox"/> Yes Oui
5. Indicate the type of access required / Indiquer le type d'accès requis			
6. a) Will the supplier and its employees require access to PROTECTED and/or CLASSIFIED information or assets? Le fournisseur ainsi que les employés auront-ils accès à des renseignements ou à des biens PROTÉGÉS et/ou CLASSIFIÉS? (Specify the level of access using the chart in Question 7. c) (Préciser le niveau d'accès en utilisant le tableau qui se trouve à la question 7. c)		<input type="checkbox"/> No Non	<input checked="" type="checkbox"/> Yes Oui
6. b) Will the supplier and its employees (e.g. cleaners, maintenance personnel) require access to restricted access areas? No access to PROTECTED and/or CLASSIFIED information or assets is permitted. Le fournisseur et ses employés (p. ex. nettoyeurs, personnel d'entretien) auront-ils accès à des zones d'accès restreintes? L'accès à des renseignements ou à des biens PROTÉGÉS et/ou CLASSIFIÉS n'est pas autorisé.		<input checked="" type="checkbox"/> No Non	<input type="checkbox"/> Yes Oui
6. c) Is this a commercial courier or delivery requirement with no overnight storage? S'agit-il d'un contrat de messagerie ou de livraison commerciale sans entreposage de nuit?		<input checked="" type="checkbox"/> No Non	<input type="checkbox"/> Yes Oui
7. a) Indicate the type of information that the supplier will be required to access / Indiquer le type d'information auquel le fournisseur devra avoir accès			
Canada <input checked="" type="checkbox"/>	NATO / OTAN <input type="checkbox"/>	Foreign / Étranger <input type="checkbox"/>	
7. b) Release restrictions / Restrictions relatives à la diffusion			
No release restrictions Aucune restriction relative à la diffusion <input checked="" type="checkbox"/>	All NATO countries Tous les pays de l'OTAN <input type="checkbox"/>	No release restrictions Aucune restriction relative à la diffusion <input type="checkbox"/>	
Not releasable À ne pas diffuser <input type="checkbox"/>			
Restricted to: / Limité à: <input type="checkbox"/> Specify country(ies): / Préciser le(s) pays:	Restricted to: / Limité à: <input type="checkbox"/> Specify country(ies): / Préciser le(s) pays:	Restricted to: / Limité à: <input type="checkbox"/> Specify country(ies): / Préciser le(s) pays:	
7. c) Level of information / Niveau d'information			
PROTECTED A PROTÉGÉ A <input checked="" type="checkbox"/>	NATO UNCLASSIFIED NATO NON CLASSIFIÉ <input type="checkbox"/>	PROTECTED A PROTÉGÉ A <input type="checkbox"/>	
PROTECTED B PROTÉGÉ B <input checked="" type="checkbox"/>	NATO RESTRICTED NATO DIFFUSION RESTREINTE <input type="checkbox"/>	PROTECTED B PROTÉGÉ B <input type="checkbox"/>	
PROTECTED C PROTÉGÉ C <input type="checkbox"/>	NATO CONFIDENTIAL NATO CONFIDENTIEL <input type="checkbox"/>	PROTECTED C PROTÉGÉ C <input type="checkbox"/>	
CONFIDENTIAL CONFIDENTIEL <input type="checkbox"/>	NATO SECRET NATO SECRET <input type="checkbox"/>	CONFIDENTIAL CONFIDENTIEL <input type="checkbox"/>	
SECRET SECRET <input type="checkbox"/>	COSMIC TOP SECRET COSMIC TRÈS SECRET <input type="checkbox"/>	SECRET SECRET <input type="checkbox"/>	
TOP SECRET TRÈS SECRET <input type="checkbox"/>		TOP SECRET TRÈS SECRET <input type="checkbox"/>	
TOP SECRET (SIGINT) TRÈS SECRET (SIGINT) <input type="checkbox"/>		TOP SECRET (SIGINT) TRÈS SECRET (SIGINT) <input type="checkbox"/>	



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PART A (continued) / PARTIE A (suite)

8. Will the supplier require access to PROTECTED and/or CLASSIFIED COMSEC information or assets?
Le fournisseur aura-t-il accès à des renseignements ou à des biens COMSEC désignés PROTÉGÉS et/ou CLASSIFIÉS? No / Non Yes / Oui
If Yes, indicate the level of sensitivity:
Dans l'affirmative, indiquer le niveau de sensibilité :

9. Will the supplier require access to extremely sensitive INFOSEC information or assets?
Le fournisseur aura-t-il accès à des renseignements ou à des biens INFOSEC de nature extrêmement délicate? No / Non Yes / Oui
Short Title(s) of material / Titre(s) abrégé(s) du matériel :
Document Number / Numéro du document :

PART B - PERSONNEL (SUPPLIER) / PARTIE B - PERSONNEL (FOURNISSEUR)

10. a) Personnel security screening level required / Niveau de contrôle de la sécurité du personnel requis

<input checked="" type="checkbox"/> RELIABILITY STATUS COTE DE FIABILITE	<input type="checkbox"/> CONFIDENTIAL CONFIDENTIEL	<input type="checkbox"/> SECRET SECRET	<input type="checkbox"/> TOP SECRET TRÈS SECRET
<input type="checkbox"/> TOP SECRET - SIGINT TRÈS SECRET - SIGINT	<input type="checkbox"/> NATO CONFIDENTIAL NATO CONFIDENTIEL	<input type="checkbox"/> NATO SECRET NATO SECRET	<input type="checkbox"/> COSMIC TOP SECRET COSMIC TRÈS SECRET
<input type="checkbox"/> SITE ACCESS ACCÈS AUX EMPLACEMENTS			

Special comments:
Commentaires spéciaux : _____

NOTE: If multiple levels of screening are identified, a Security Classification Guide must be provided.
REMARQUE: Si plusieurs niveaux de contrôle de sécurité sont requis, un guide de classification de la sécurité doit être fourni.

10. b) May unscreened personnel be used for portions of the work?
Du personnel sans autorisation sécuritaire peut-il se voir confier des parties du travail? No / Non Yes / Oui
If Yes, will unscreened personnel be escorted?
Dans l'affirmative, le personnel en question sera-t-il escorté? No / Non Yes / Oui

PART C - SAFEGUARDS (SUPPLIER) / PARTIE C - MESURES DE PROTECTION (FOURNISSEUR)

INFORMATION / ASSETS / RENSEIGNEMENTS / BIENS

11. a) Will the supplier be required to receive and store PROTECTED and/or CLASSIFIED information or assets on its site or premises?
Le fournisseur sera-t-il tenu de recevoir et d'entreposer sur place des renseignements ou des biens PROTÉGÉS et/ou CLASSIFIÉS? No / Non Yes / Oui

11. b) Will the supplier be required to safeguard COMSEC information or assets?
Le fournisseur sera-t-il tenu de protéger des renseignements ou des biens COMSEC? No / Non Yes / Oui

PRODUCTION

11. c) Will the production (manufacture, and/or repair and/or modification) of PROTECTED and/or CLASSIFIED material or equipment occur at the supplier's site or premises?
Les installations du fournisseur serviront-elles à la production (fabrication et/ou réparation et/ou modification) de matériel PROTÉGÉ et/ou CLASSIFIÉ? No / Non Yes / Oui

INFORMATION TECHNOLOGY (IT) MEDIA / SUPPORT RELATIF À LA TECHNOLOGIE DE L'INFORMATION (TI)

11. d) Will the supplier be required to use its IT systems to electronically process, produce or store PROTECTED and/or CLASSIFIED information or data?
Le fournisseur sera-t-il tenu d'utiliser ses propres systèmes informatiques pour traiter, produire ou stocker électroniquement des renseignements ou des données PROTÉGÉS et/ou CLASSIFIÉS? No / Non Yes / Oui

11. e) Will there be an electronic link between the supplier's IT systems and the government department or agency?
Disposera-t-on d'un lien électronique entre le système informatique du fournisseur et celui du ministère ou de l'agence gouvernementale? No / Non Yes / Oui



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Gouvernement du Canada

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PART C - (continued) / PARTIE C - (suite)

For users completing the form **manually** use the summary chart below to indicate the category(ies) and level(s) of safeguarding required at the supplier's site(s) or premises.
Les utilisateurs qui remplissent le formulaire **manuellement** doivent utiliser le tableau récapitulatif ci-dessous pour indiquer, pour chaque catégorie, les niveaux de sauvegarde requis aux installations du fournisseur.

For users completing the form **online** (via the Internet), the summary chart is automatically populated by your responses to previous questions.
Dans le cas des utilisateurs qui remplissent le formulaire **en ligne** (par Internet), les réponses aux questions précédentes sont automatiquement saisies dans le tableau récapitulatif.

SUMMARY CHART / TABLEAU RÉCAPITULATIF

Category Catégorie	PROTECTED PROTÉGÉ			CLASSIFIED CLASSIFIÉ		NATO				COMSEC							
	A	B	C	CONFIDENTIAL	SECRET	TOP SECRET	NATO RESTRICTED	NATO CONFIDENTIAL	NATO SECRET	COMSEC TOP SECRET COMSEC TRÈS SECRET	PROTECTED PROTÉGÉ			CONFIDENTIAL	SECRET	TOP SECRET	
						TRÈS SECRET	NATO DIFFUSION RESTRICTÉE	NATO CONFIDENTIEL	A		B	C	CONFIDENTIEL				TRÈS SECRET
Information / Assets Renseignements / Biens																	
Production																	
T Media / Support TI																	
T Link / Lien électronique																	

12. a) Is the description of the work contained within this SRCL PROTECTED and/or CLASSIFIED?
La description du travail visé par la présente LVERS est-elle de nature PROTÉGÉE et/ou CLASSIFIÉE? No / Non Yes / Oui

If Yes, classify this form by annotating the top and bottom in the area entitled "Security Classification".
Dans l'affirmative, classifiez le présent formulaire en indiquant le niveau de sécurité dans la case intitulée « Classification de sécurité » au haut et au bas du formulaire.

12. b) Will the documentation attached to this SRCL be PROTECTED and/or CLASSIFIED?
La documentation associée à la présente LVERS sera-t-elle PROTÉGÉE et/ou CLASSIFIÉE? No / Non Yes / Oui

If Yes, classify this form by annotating the top and bottom in the area entitled "Security Classification" and indicate with attachments (e.g. SECRET with Attachments).
Dans l'affirmative, classifiez le présent formulaire en indiquant le niveau de sécurité dans la case intitulée « Classification de sécurité » au haut et au bas du formulaire et indiquez qu'il y a des pièces jointes (p. ex. SECRET avec des pièces jointes).

APPENDIX A TO ANNEX C - SECURITY CLASSIFICATION GUIDE

The related Statement of Work (SOW) defines the professional services required to assist CBSA with **Application and Data Services** related tasks. The SOW covers aspects related to the provision of multiple personnel at any given time for the duration of the Contract.

Various categories of professional services will be required.

Applications and Data Services

Resource Category	Level	Minimum Security Clearance
A.1 Application/Software Architect	3	Reliability
I.5 IM Architect – Cloud	3	Reliability
I.10 Technical Architect	3	Reliability
I.5 IM Architect – Data/ AI	3	Reliability
I .10 Technical Architect - Mobile	3	Reliability
A.16 Web Multi Media Content Consultant	3	Reliability
A.6 Programmer / Software Developer (iOS/ Android)	3	Reliability
A.14 Web Developer	3	Reliability
P.11 Quality Assurance Specialist / Analyst	3	Reliability

All resources assigned to this Contract without exception must be cleared at a minimum to the Reliability Level.