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PART 1 - GENERAL INFORMATION

1. Introduction

The Request for Supply Arrangements (RFSA) is divided into six parts plus attachments and annexes, as follows:

- Part 1 General Information: provides a general description of the requirement;
- Part 2 Supplier Instructions: provides the instructions applicable to the clauses and conditions of the RFSA;
- Part 3 Arrangement Preparation Instructions: provides suppliers with instructions on how to prepare the arrangement to address the evaluation criteria specified;
- Part 4 Evaluation Procedures and Basis of Selection: indicates how the evaluation will be conducted, the evaluation criteria which must be addressed in the arrangement, the security requirement, and the basis of selection;
- Part 5 Certifications: includes the certifications to be provided; and
- Part 6 6A, Supply Arrangement, 6B, Bid Solicitation, and 6C, Resulting Contract Clauses:
 - 6A, includes the Supply Arrangement (SA) with the applicable clauses and conditions;
 - 6B, includes the instructions for the bid solicitation process within the scope of the SA;
 - 6C, includes general information for the conditions which will apply to any contract entered into pursuant to the SA.

The Annexes include

- Annex A Requirements for Services
- Annex B Generic Security Requirements Check List
- Annex C Utilization Reports
- Annex D Description of categories

2. Summary

- 2.1 This bid solicitation is to satisfy the Government of Canada's requirement for the provision of **ProServices** (Professional services below the NAFTA threshold) to locations throughout Canada, excluding any locations in areas subject to any of the Comprehensive Land Claims Agreements (the "Services"). Each bid may result in a Supply Arrangement. All suppliers capable of meeting the requirements of this bid solicitation are invited to submit a bid for the Services containing an arrangement for a Supply Arrangement.

2.2 Streams

The Services include the following Streams:

IT Streams:

- Stream 1 (A) - Application Services Stream
- Stream 2 (G) - Geomatics Services
- Stream 3 (I) - IM/IT Services
- Stream 4 (B) - Business Services

Stream 5 (P) - Project Management Services
Stream 6 (C) - Cyber Protection Services/IT Security Services
Stream 7 (T) - Technical Engineering and Maintenance

Non-IT Streams

Stream 8 - Human Resources Services
Stream 9 - Business Consulting/Change Management
Stream 10 - Project Management Services
Stream 11 - Real Property Project Management Services
Stream 12 - Technical, Engineering and Maintenance Services

Each Stream is further subdivided into single resource categories.

Bids will be evaluated on a "Category/Stream" basis. Therefore, if a bidder wishes to submit a bid for services in only one specific Category/Stream, then it has the opportunity to do so. It is not mandatory to provide a bid for all Categories/Streams to be issued an instrument.

2.3 **Bid Solicitation**

It is intended that this bid solicitation follow the guidelines set out by PWGSC's Professional Services National Procurement Strategy; however those guidelines are not incorporated into this document. The bid solicitation documents contain all the requirements relating to the bid solicitation. Any other information or documentation provided to or obtained by a bidder from any source is not relevant.

In as much as possible, PWGSC will issue a bid solicitation intended to replace the Supply Arrangements for the Services on an annual basis, although PWGSC reserves the right to choose to proceed with a different procurement vehicle for the requirement if it considers such action appropriate. Each such recompetition (a "refresh bid solicitation") requires all bidders including those who may have received instruments under the previous solicitation, to submit a bid in response to the bid solicitation in order to continue to provide services under its resulting Supply Arrangements. The terms and conditions of each recompetition (refresh bid solicitation) may add, modify or remove Categories/Streams, and may otherwise modify the requirements of the previous bid solicitation. As such, each recompetition (refresh bid solicitation) stands alone, separate and apart from any previous bid solicitation. While some aspects of a bidder's bid may incorporate by reference information already in the possession of Canada, all the requirements of a refresh bid solicitation must be met by each bidder by refresh bid solicitation closing date.

Refresh:

After the date of issuance of the Supply Arrangements, a perpetual refresh process will be initiated which enables the pre-qualification of new suppliers and/or further pre-qualification to add streams and/or categories for existing Suppliers already included in the ePortal of the Centralized Professional Services System (CPSS).

Suppliers may submit a bid for a Supply Arrangement at any time by responding to the most recent refresh terms and conditions posted on Government Electronic Tendering System (GETS). Canada reserves the right to issue supply arrangements to bidders who qualify throughout the entire period of the Supply Arrangement. Evaluations of such arrangements will be processed on a quarterly basis, with targeted schedules identifying bid due dates for each quarterly evaluation cycle.

3. Security Requirement

There is a security requirement associated with the requirement of the Supply Arrangement. For additional information, see Part 4 - Evaluation Procedures and Basis of Selection, and Part 6 - Supply Arrangement and Resulting Contract Clauses.

4. Bidder's Conference

A bidders' conference will be held at Gatineau, Quebec, in May 2013. Exact details on the format of the conference, time the conference will begin and the exact location, will be posted on MERX and the ProServices website. An overview of what ProServices is will be reviewed during the conference and questions will be answered. Webex demos on the use of the CPSS Supplier Module - Data Collection Component will be available at that time, but will not form part of the conference.

Bidders are requested to communicate with the Contracting Authority before the conference to confirm attendance. Bidders should provide, in writing, to the Contracting Authority, the names of the person(s) who will be attending and a list of issues they wish to table at least five (5) working days before the scheduled conference.

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

5. Debriefings

After issuance of a supply arrangement, suppliers may request a debriefing on the results of the request for supply arrangements process. Suppliers should make the request to the Supply Arrangement Authority within 15 working days of receipt of the results of the request for supply arrangements process. The debriefing may be in writing, by telephone or in person.

6. Key Terms

- 6.1 As part of the Professional Services National Procurement Strategy, a single ePortal has been created, the Centralized Professional Services System (CPSS). CPSS is comprised of a Supplier Module and a Client Module. Under the CPSS Supplier Module, a dashboard is accessible for all Suppliers to view information on current and upcoming solicitations for professional services. To input data as part of the solicitation process, existing Suppliers in CPSS use their current Main Supplier Contact credentials. Potential new Suppliers must enroll to establish a Main Supplier Contact and obtain credentials. Enrolment can be initiated/completed at any time, with a response time of minutes to receive credentials. Instructions, including enrolment in the Supplier Module, are available at: <http://www.tpsgc-pwgsc.gc.ca/app-acq/spc-cps/spc-cps-eng.html> .
- 6.2 A **new Bidder** refers to a bidder that was not awarded an SO or an SA under TBIPS refresh or the TSPS refresh.
- 6.3 An **existing or current SO and/or SA Holder** refers to a bidder, that was awarded a SO and/or SA under the TBIPS or the TSPS refreshes.
- 6.4 CPSS contains information on methods of supply, which will include Task Based Informatics Professional Services (TBIPS) and/or Task and Solutions Professional Services (TSPS), and reflects standardized business rules and is comprised of a **Supplier Module, a Client Module**

and a **Maintenance Module**. The **Supplier Module** allows a supplier, through a Main Supplier Contact to:

- i) create and manage Contacts (Supplier personnel, using credentials received in response to actions by the Main Supplier Contact, who can input data for the Supplier into the Data Collection Component and/or Supplier personnel who can view data displayed in the Client Module for use by Government of Canada personnel);
- ii) input and submit data as part of a solicitation process;
- iii) track the progress/status of data input against bid solicitation(s) and retrieved the data for use in other solicitations;
- iv) modify an arrangement as permitted by a solicitation's terms;
- v) view information pertaining to that supplier and edit certain elements of that supplier's profile. The **Client Module** is used by Government of Canada personnel to process procurement functions. The **Maintenance Module** is used to administer CPSS and the methods of supply contained therein.

6.5 The **Data Collection Component** or **DCC** of the CPSS Supplier Module replaces the concept of "Response Templates" that have been used in other professional services solicitations for TBIPS and TSPS. The DCC will display information on methods of supply in a "dashboard" format, providing both information that has been submitted by a supplier and information on upcoming and closed solicitations for professional services.

6.6 Each supplier must enroll and identify a **Main Supplier Contact** or **MSC**. The MSC will receive credentials that enable the MSC to access the Supplier Module, as defined in Article 5.4 above. Enrolment is conducted on-line and can be initiated by a supplier at any time, with a typical response time of minutes to receive credentials, where all the necessary information is received by Canada. Instructions for enrolment in the CPSS Supplier Module and other support on the use of the DCC, are available at:
<http://www.tpsgc-pwgsc.gc.ca/app-acq/spc-cps/spc-cps-eng.html>

When participating in any solicitation processes that involve the use of the DCC, suppliers are responsible for safeguarding credentials released to the MSC and supplier's Contacts, to enable access the Supplier Module. Suppliers are also responsible for the input of accurate data in the DCC. Canada will not delay or cancel any solicitation or call-up process due to a supplier's inability to access, modify or validate such credentials.

Should a supplier have questions or concerns regarding enrolment or any other aspect of the electronic transmission of data through the DCC, the supplier is encouraged to submit these questions or concerns, as early as possible in the bid solicitation period, in accordance with the Article titled "Enquiries - Request for Bids".

PART 2 - SUPPLIER INSTRUCTIONS

1. Standard Instructions, Clauses and Conditions

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

Suppliers who submit an arrangement agree to be bound by the instructions, clauses and conditions of the RFSA and accept the clauses and conditions of the Supply Arrangement and resulting contract(s).

The 2008 (2012-11-19) Standard Instructions - Request for Supply Arrangements - Goods or Services, are incorporated by reference into and form part of the RFSA.

Subsection 5.4 of 2008, Standard Instructions - Request for Supply Arrangements - Goods or Services, is amended as follows:

Delete: sixty (60) days

Insert: two hundred and twenty (220) days

1.1 Bid Participation

- a) Although this solicitation may result in a Bidder receiving a Supply Arrangement, a Bidder's bid must contain its response to all the requirements of this bid solicitation. The bid may include an arrangement for a Supply Arrangement in some or all Streams and/or Categories; however, a Bidder may not submit a second bid for the same Regions, Streams and/or Categories.
- b) One legal entity may participate in the submission of:
 - (i) one bid from the legal entity alone, or
 - (ii) one bid from the legal entity and one bid submitted in a joint venture, or
 - (iii) two bids submitted in joint venture.

No more than two bids generated from the same legal entity is permitted in response to this solicitation. If a legal entity participates in more than two bids, Canada will choose in its discretion which two bids to consider. If a legal entity chooses to participate in two bids, each bid must be a physically separate document, clearly marked as a separate bid. Each bid will be evaluated independently without regard to other bids submitted and, therefore, every bid submitted must be complete.

A pre-qualified supplier in TBIPS or TSPS can be grandfathered to ProServices, however, the limit of two bids generated from the same legal entity starts with the solicitation process conducted for TBIPS and/or TSPS, i.e. one legal entity as defined above, which means that if this limit of two has been met under TBIPS or TSPS, no further joint venture can be obtained under ProServices. An additional joint-venture to the limit of 2 legal entities is possible if the TBIPS or TSPS pre-qualified supplier currently has one legal entity. Additional categories can be obtained subject to Attachment B, Supply Arrangement Technical Evaluation..

2. Submission of Arrangements

While suppliers normally have the option to submit their tender to Canada in writing directly, by mail, or by other means, due to the unique nature of this solicitation, bids must be submitted only in the following manner:

- (i) The Bidder must submit in print to Public Works and Government Services Canada (PWGSC) Bid Receiving Unit by the date, time and place indicated on page one of the bid solicitation, the following elements of the bid:
 - the Bidder signed front page (Attachment E)
 - proof of one year in business, i.e. certificate of ownership or business registration or tax returns
 - code of conduct:
 - ♦ if incorporated, a complete list of names of all individuals who are currently directors of the Supplier;
 - ♦ if a sole proprietorship, the name of the owner, and
 - aboriginal certifications, if applicable.
- (ii) The Bidder must submit electronically through the CPSS Supplier Module - Data Collection Component (DCC), by the date and time as indicated on page one of the bid solicitation, the Online response template contained in the DCC (see Part 3 for Instructions, paragraph 1.3).

Due to the nature of the Request for Supply Arrangements, transmission of arrangements by facsimile to PWGSC will not be accepted.

3. Enquiries - Request for Supply Arrangements

All enquiries must be submitted in writing to the Supply Arrangement Authority no later than fifteen (15) calendar days before the Request for Supply Arrangements (RFSA) closing date. Enquiries received after that time may not be answered.

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

4. Applicable Laws

The Supply Arrangement (SA) and any contract awarded under the SA must be interpreted and governed, and the relations between the parties determined, by the laws in force in Ontario.

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

PART 3 - ARRANGEMENT PREPARATION INSTRUCTIONS

1.1 Arrangement Preparation Instructions

Canada requests that suppliers provide the arrangement in separately bound sections as follows:

Section I: To the PWGSC Bid Receiving Unit, one (1) hard copy of the following documents by the closing date, time, and location indicated on page one of this solicitation.

- the Bidder signed front page (Attachment E)
- proof of one year in business from date of bid closing, i.e. certificate of ownership or business registration or tax returns
- code of conduct:
 - ◆ if incorporated, a complete list of names of all individuals who are currently directors of the Supplier;;
 - ◆ if a sole proprietorship, the name of the owner, and
- aboriginal certifications, if applicable.

Section II: Online response template submitted electronically through the CPSS Supplier Module - Data Collection Component (DCC), which should include Certifications.

1.2 In April 2006, Canada issued a policy directing federal departments and agencies to take the necessary steps to incorporate environmental considerations into the procurement process Policy on Green Procurement (<http://www.tpsgc-pwgsc.gc.ca/ecologisation-greening/achats-procurement/politique-policy-eng.html>).

To assist Canada in reaching its objectives, suppliers should:

- 1) use paper containing fibre certified as originating from a sustainably-managed forest and containing minimum 30% recycled content; and
- 2) use an environmentally-preferable format including black and white printing instead of colour printing, printing double sided/duplex, using staples or clips instead of cerlox, duotangs or binders.

1.3 The Data Collection Component (DCC) of the Supplier Module in the Central Professional Services System (CPSS) :

Bidders must submit their Online response template for their technical bid as specified in this Part 3 through the CPSS Supplier Module, DCC. The DCC replaces the concept of "Response Templates" that have been used in other professional services solicitations.

The DCC allows bidders to re-submit the electronic copy of the bid up until the closing date and time of this solicitation.

To access the Data Collection Component:

1. Access the following CPSS link: <http://www.tpsgc-pwgsc.gc.ca/app-acq/spc-cps/spc-cps-eng.html>
2. Enroll in CPSS Supplier Module. Bidders must contact CPSS directly for enrolment questions or assistance: sspc.cpss@tpsgc-pwgsc.gc.ca

3. For enrolled suppliers, "Supplier Easy Steps" are available on the website:

<http://www.tpsgc-pwgsc.gc.ca/app-acq/spc-cps/espfccd-sesdcc-eng.html>

4. Enter all the required data into the Data Collection Component.

<https://sspc-fournisseur-cpss-supplier.tpsgc-pwgsc.gc.ca/Indiquerouvertureession-ShowLogin-Eng.action?lang=eng>

Section I: Technical Arrangement

For new Bidders or existing TBIPS and/or TSPS Suppliers offering a new bid:

Through the CPSS Supplier Module - Data Collection Component (DCC), Suppliers must identify the Categories, Stream(s), Region(s), Metropolitan, and local offices(s) area(s) for which they wish to be considered and, language preferences and contacts.

In their technical bid, bidders must input the following information in the **CPSS Supplier Module - DCC** for category substantiation:

- Select the streams you wish to offer, complete and save.
- Select the categories under the stream you wish to offer. All categories relevant to that particular stream will be listed in a table, complete and save.
- On the "Category - Substantiation" page, you must substantiate your category. Information on how to substantiate your category is in Attachment B - Supply Arrangement Technical Evaluation, which is attached to this document.

This bid solicitation will award arrangements based upon an evaluation that does not assess the personnel that may be provided by the bidder after the award of a Supply Arrangement. As it does not require the submission of individual resources, resumes are not requested and should not be submitted with a Bidder's bid.

Bidders must submit their technical bid by completing **the Online response template in the CPSS Supplier Module - DCC**. A complete bid includes the completed Online response template, and:

- the Bidder's signed front page (Attachment E), sent to Bid Receiving Unit (BRU), location as indicated on page 1 of the RFSA, and received by BRU by the closing date and time;
- proof of one year in business from date of bid closing, i.e. certificate of ownership or business registration or tax returns;
- code of conduct:
 - ♦ if incorporated, a complete list of names of all individuals who are currently directors of the Supplier,
 - ♦ if a sole proprietorship, the name of the owner; and
- aboriginal certifications, if applicable.

For existing TSPS and TBIPS Suppliers (i.e. grandfathering):

If a Supplier is pre-qualified under TBIPS or TSPS Standing Offers or Supply Arrangements, they must confirm this in the CPSS Supplier Module - DCC, by:

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- selecting the Grandfather Certification, and agree to the certification;
- selecting the currently offered streams, save.
- then access the category link for that stream and select what categories a pre-qualified supplier has under TBIPS and/or TSPS.
- signing the front page (also attached at Attachment E), which is to be sent to the Bid Receiving Unit (BRU), location as indicated on page 1 of the RFSA, and received by BRU by the closing date and time.

Substantiation for TBIPS and/or TSPS categories does not need to be submitted.

Section II: Certifications

Suppliers must submit the certifications required under Part 5 by completing and submitting the Online response template, through the CPSS Supplier Module - DCC: Certifications.

PART 4 - EVALUATION PROCEDURES AND BASIS OF SELECTION

1. Evaluation Procedures

- (a) Arrangements will be assessed in accordance with the entire requirement of the Request for Supply Arrangements including the technical evaluation criteria. There are several steps in the evaluation methodology, which are described below. Although the evaluation and selection will be conducted in steps, the fact that Canada has proceeded to a later step does not mean that Canada has conclusively determined that the Bidder has been successful in all the previous steps. Canada may conduct steps of the evaluation in parallel.
- (b) An evaluation team composed of representatives of Canada will evaluate the bids. Canada may hire any independent consultant, or use any Government resources, to evaluate any bid. Not all members of the evaluation team will necessarily participate in all aspects of the evaluation.
- (c) If Canada seeks clarification or verification from the Supplier about its bid, the Supplier will have two working days (or a longer period if specified in writing by the Arrangement Authority) to provide the necessary information to Canada. Failure to meet this deadline will result in the bid or a part thereof being declared non-responsive, unless the Arrangement Authority grants an extension in his or her sole discretion.

1.1. Technical Evaluation

The technical evaluation criteria for the provision of a Supply Arrangement are included in Attachment B, Supply Arrangement Technical Evaluation.

1.2 Financial Evaluation

No financial evaluation of bids is required to be issued a Supply Arrangement

2. Basis of Selection

All elements of this solicitation that are mandatory requirements are identified specifically with the words "must" or "mandatory". Bids that do not comply with each and every mandatory requirement applicable to the arrangement in their bid will be considered non-responsive for that arrangement. The evaluation steps are as follows:

Step 1 – Technical Evaluation:

Each bid will be reviewed to determine whether it contains an arrangement for a Supply Arrangement that meets the mandatory requirements of Attachment B, Supply Arrangement Technical Evaluation.

Within each bid, an arrangement must comply with the requirements of the bid solicitation and meet all mandatory requirements of Attachment B, SA Technical Evaluation to be declared responsive to the requirement for a Supply Arrangement.

Step 2 – Selection and Issuance of Supply Arrangements:

Each technically responsive bid will be recommended for the issuance of a Supply Arrangement on the terms stated in Part 6A - Supply Arrangement and Resulting Contract Clauses.

Where an Aboriginal Bidder qualifies for both an Aboriginal and Non-Aboriginal Supply Arrangement, only one Supply Arrangement will be awarded which will serve to govern Aboriginal and non-Aboriginal procurements.

3. Security Requirement

1. Before issuance of a supply arrangement, the following conditions must be met:
 - (a) the Supplier must hold a valid organization security clearance as indicated in Part 6A - Supply Arrangement;
 - (b) the Supplier's proposed individuals requiring access to classified or protected information, assets or sensitive work site(s) must meet the security requirement as indicated in Part 6A - Supply Arrangement;
 - (c) the Supplier must provide the name of all individuals who will require access to classified or protected information, assets or sensitive work sites.
2. Suppliers are reminded to obtain the required security clearance promptly. Any delay in the issuance of a supply arrangement to allow the successful supplier to obtain the required clearance will be at the entire discretion of the Supply Arrangement Authority.
3. Canada will not delay the issuance of any Supply Arrangement to allow bidders to obtain the required clearance. However, should a supplier receive its required clearance while all other requirements of the bid solicitation have been met and its bid is still valid, Canada will consider awarding a SA to that supplier.
4. Bidders may request that the Supply Arrangement Authority consider security sponsorship of their candidacy to upgrade it to the next security level that is above the bidder's current security level or to seek initial DOS clearance. Such sponsorship is only available for one level of upgrade at a time. This request may be made at any time before or after bid closing by sending the request via email to the attention of the Supply Arrangement Authority.
5. Joint venture suppliers must have a Designated Organization Screening (DOS) as well, for each member.
6. For additional information on security requirements, suppliers should consult the "Security Requirements for PWGSC Bid Solicitation - Instructions for Bidders" (<http://www.tpsgc-pwgsc.gc.ca/app-acq/lc-pl/lc-pl-eng.html#a31>) document on the Departmental Standard Procurement Documents Web site.

PART 5 - CERTIFICATIONS

Suppliers must provide the required certifications and related documentation to be issued a supply arrangement (SA). Canada will declare an arrangement non-responsive if the required certifications are not completed and submitted as requested.

Compliance with the certifications suppliers provide to Canada is subject to verification by Canada during the arrangement evaluation period (before issuance of a SA) and after issuance of a SA. The Supply Arrangement Authority will have the right to ask for additional information to verify suppliers' compliance with the certifications before issuance of a SA. The arrangement will be declared non-responsive if any certification made by the Supplier is untrue, whether made knowingly or unknowingly. Failure to comply with the certifications, to provide the related documentation or to comply with the request of the Supply Arrangement Authority for additional information will also render the arrangement non-responsive.

Mandatory Certifications Required Precedent to Issuance of a Supply Arrangement

The certifications included in the CPSS Supplier Module - Data Collection Component: Certifications should be completed and submitted as part of the "Online" response template. If any of these required certifications is not completed and submitted as requested, the Arrangement Authority will so inform the Bidder and provide a time frame within which to meet the requirement. Failure to comply with the request of the Supply Arrangement Authority and meet the requirement within that time period will render the bid non-responsive.

The following certifications are part of the CPSS Supplier Module - Data Collection Component:

1. Federal Contractor's Program for Employment Equity Certification
2. Former Public Servant
3. Workforce Reduction Program Certification
4. Grandfather Certification (see clause below)
5. Code of Conduct Certifications (see clause below)
6. Aboriginal Business Certification (if applicable, see Attachment F attached)

Grandfather Certification (#4 above)

If a Supplier is a pre-qualified supplier under either TBIPS or TSPS Standing Offers or Supply Arrangements, they must confirm this in the CPSS Supplier Module - Data Collection Component, select the Grandfather Certification, and agree to the certification. The supplier must then complete the streams and categories that they are pre-qualified in within TBIPS or TSPS, however, substantiating information for existing TBIPS and/or TSPS categories is not to be submitted, i.e. no re-qualification will occur.

One legal entity may participate in the submission of:

- (i) one bid from the legal entity alone, or
- (ii) one bid from the legal entity and one bid submitted in a joint venture, or
- (iii) two bids submitted in joint venture.

A pre-qualified supplier in TBIPS or TSPS can be grandfathered to ProServices, however, the limit of two bids generated from the same legal entity starts with the solicitation process conducted for TBIPS and/or TSPS, i.e. one legal entity as defined above, which means that if this limit of two has been met under TBIPS or TSPS, no further joint-venture can be obtained under ProServices. An additional joint-venture to the limit of 2 legal entities is possible if the TBIPS or TSPS pre-qualified supplier currently has one legal entity. Additional categories can be obtained subject to Attachment B.

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Code of Conduct and Certifications - Related documentation (#5 above)

- 5.1** By submitting an arrangement, the Supplier certifies for himself and his affiliates, their full compliance with the Code of Conduct and Certifications clause of section 01 of the Standard Instructions 2008 (2012-11-19). The related documentation hereinafter mentioned will help Canada in confirming that the certifications are true.

Suppliers who are incorporated, including those submitting arrangements as a joint venture, must provide with their arrangement or promptly thereafter a complete list of names of all individuals who are currently directors of the Supplier. Suppliers submitting arrangements as sole proprietorship, including those submitting arrangements as a joint venture, must provide the name of the owner with their arrangement or promptly thereafter. Suppliers submitting arrangements as societies, firms, partnerships or associations of persons do not need to provide lists of names. If the required names have not been received by the time the evaluation of arrangements is completed, Canada will inform the Supplier of a time frame within which to provide the information. Failure to comply will render the arrangement non-responsive. Providing the required names is a mandatory requirement for issuance of a Supply Arrangement and any resulting contract.

Canada may, at any time, request that a Supplier provide properly completed and Signed Consent Forms ([Consent to a Criminal Record Verification](http://www.tpsgc-pwgsc.gc.ca/app-acq/forms/formulaires-forms-eng.html) form- PWGSC-TPSGC 229) (<http://www.tpsgc-pwgsc.gc.ca/app-acq/forms/formulaires-forms-eng.html>) for any or all individuals aforementioned within the time specified. Failure to provide such Consent Forms within the time period provided will result in the arrangement being declared non-responsive.

Aboriginal Business Certification (#6 above)

Suppliers seeking to qualify for an Aboriginal Supply Arrangement must complete the certification in the Data Collection Component of CPSS. Suppliers must complete the required information and should include it in their Bids. Suppliers may also satisfy the requirement by reproducing the documents in another way, provided the wording of the document is not changed.

**ABORIGINAL BUSINESS CERTIFICATION
(MANDATORY FOR BIDDERS SEEKING QUALIFICATION FOR ABORIGINAL SA)**

PLEASE COMPLETE ONLY ONE OF THE TWO (2) STATEMENTS BELOW

I, _____ (*Insert Name of duly authorized representative of business*), want to be considered as an Aboriginal and Non-Aboriginal Offeror. []]

I, _____ (*Insert Name of duly authorized representative of business*), want to be considered as a Aboriginal Offeror only. []]

1. PLEASE COMPLETE THE INFORMATION REQUIRED BELOW

(a) I, _____ (*Insert Name of duly authorized representative of business*)

hereby certify that _____ (*Insert name of Bidder*) meets, and will continue to meet throughout the duration of the Aboriginal Supply Arrangement, the requirements for this program as set out in this Annex "E" to Part A entitled "Requirements for the Set-Aside Program for Aboriginal Business", which document I have read and understand.

(b) The aforementioned business agrees to ensure that any subcontractor it engages with respect to any contract awarded under any resulting Aboriginal Supply Arrangement will, if required, satisfy the requirements set out in "Requirements for the Set-Aside Program for Aboriginal Business."

(c) The aforementioned business agrees to provide to Canada, immediately upon request, information to substantiate a subcontractor's compliance with this program.

PLEASE CHECK THE APPLICABLE BOXES IN 2 AND 3 BELOW

2.	[]]	The aforementioned business is an Aboriginal business which is a sole proprietorship, band, limited company, co-operative, partnership or not-for-profit organization,
	OR []]	The aforementioned business is a joint venture between two or more Aboriginal businesses or an Aboriginal business and a non-Aboriginal business
3.	[]]	The Aboriginal business or businesses have:
	[]]	fewer than six full-time employees
	OR []]	six or more full-time employees

4. The aforementioned business agrees to immediately furnish to Canada, such evidence as may be requested by Canada from time to time, corroborating this certification. Such evidence will be open to audit during normal business hours by a representative of Canada, who may make copies and take extracts from the evidence. The aforementioned business agrees to provide all facilities for audits and to furnish information requested by Canada with respect to the certification.

5. It is understood that the civil consequences of making an untrue statement in the bid documents, or of not complying with the requirements of the Program or failing to produce satisfactory evidence to Canada regarding the requirements of the Program, may include: forfeiture of the bid deposit; retention of the holdback; disqualification of the business from participating in future contracts under the Program; and/or termination of any contract awarded pursuant to the Aboriginal SA. In the event that a contract is terminated because of an untrue statement or non-compliance with the requirements of the Program, Canada may engage another contractor to complete the performance of the contract and any additional costs incurred by Canada will, upon the request of Canada, be borne by the aforementioned business.

REQUIREMENTS FOR THE SET-ASIDE PROGRAM FOR ABORIGINAL BUSINESS

Who is eligible?

An Aboriginal business, which can be:

- a band as defined by the Indian Act
 - a sole proprietorship
- or
- a limited company
 - a co-operative
 - a partnership
 - a not-for-profit organization

in which Aboriginal persons have at least 51 percent ownership and control,

OR

A joint venture consisting of two or more Aboriginal businesses or an Aboriginal business and a non-Aboriginal business(es), provided that the Aboriginal business(es) has at least 51 percent ownership and control of the joint venture.

When an Aboriginal business has six or more full-time employees at the date of submitting the bid, at least thirty-three percent of them must be Aboriginal persons, and this ratio must be maintained throughout the duration of the contract.

Are there any other requirements attached to bidders in the Set-Aside Program for Aboriginal Business? - Yes.

- In respect of a contract, (goods, service or construction), on which a bidder is making a proposal which involves subcontracting, the bidder must certify in its bid that at least thirty-three percent of the value of the work performed under the contract will be performed by an Aboriginal business. *Value of the work performed* is considered to be the total value of the contract less any materials directly purchased by the contractor for the performance of the contract. Therefore, the bidder must notify and, where applicable, bind the subcontractor in writing with respect to the requirements that the Aboriginal Set-Aside Program (the Program) may impose on the subcontractor or subcontractors.
- The bidder's contract with a subcontractor must also, where applicable, include a provision in which the subcontractor agrees to provide the bidder with information, substantiating its compliance with the Program, and authorize the bidder to have an audit performed by Canada to examine the subcontractor's records to verify the information provided. Failure by the bidder to exact or enforce such a provision will be considered to be a breach of contract and subject to the civil consequences referred to in this document.
- As part of its bid, the bidder must complete the *Certification of Requirements for the Set-Aside Program for Aboriginal Business* (certification) stating that it:
 - meets the requirements for the Program and will continue to do so throughout the duration of the contract;
 - will, upon request, provide evidence that it meets the eligibility criteria;
 - is willing to be audited regarding the certification; and
 - acknowledges that if it is found NOT to meet the eligibility criteria, the bidder will be subject to one or more of the civil consequences set out in the certification and the contract.

How must the business prove that it meets the requirements?

It is not necessary to provide evidence of eligibility at the time the bid is submitted. However, the business should have evidence of eligibility ready in case it is audited.

The civil consequences of making an untrue statement in the bid documents, or of not complying with the requirements of the Program or failing to produce satisfactory evidence to Canada regarding the requirements of the Program, may include: forfeiture of the bid deposit; retention of the holdback; disqualification of the business from participating in future contracts under the program; and/or termination of the contract. In the event that the contract is terminated because of

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an untrue statement or non-compliance with the requirements of the Program, Canada may engage another contractor to complete the performance of the contract and any additional costs incurred by Canada will, upon the request of Canada, be borne by the business.

What evidence may be required from the business?

Ownership and control

Evidence of ownership and control of an Aboriginal business or joint venture may include incorporation documents, shareholders' or members' register; partnership agreements; joint venture agreements; business name registration; banking arrangements; governance documents; minutes of meetings of Board of Directors and Management Committees; or other legal documents.

Ownership of an Aboriginal business refers to "beneficial ownership" i.e. who is the real owner of the business. Canada may consider a variety of factors to satisfy whether Aboriginal persons have true and effective control of an Aboriginal business. (See the end of this annex for a list of the factors which may be considered by Canada.)

Employment and employees

Where an Aboriginal business has six or more full-time employees at the date of submitting the certification and is required by Canada to substantiate that at least thirty-three percent of the full-time employees are Aboriginal, the business must, upon request by Canada, immediately provide a completed *Owner/Employee Certification* form, below, for each full-time employee who is Aboriginal.

Owner/Employee Certification Form

SET-ASIDE PROGRAM FOR ABORIGINAL BUSINESS

1. I, _____ (*name of the owner and/or full-time employee*), am an owner and/or full-time employee of _____ (*name of business*), and an Aboriginal person, as described in the document "Requirements for the Set-Aside Program for Aboriginal Business".
2. I certify that the above statement is true and consent to its verification upon the request of Canada.

(Signature of the Owner and/or employee)

(Name and Title)

(Date)

Evidence as to whether an employee is or is not full-time and evidence as to the number of full-time employees may include payroll records, written offers for employment, and remittance and payroll information maintained for Canada Customs and Revenue Agency purposes as well as information related to pension and other benefit plans.

A full-time employee, for the purpose of this program, is one who is on the payroll, is entitled to all benefits that other full-time employees of the business receive, such as pension plan, vacation pay and sick leave allowance, and works at least 30 hours a week. It is the number of full-time employees on the payroll of the business at the date of bid submission that determines the ratio of Aboriginal to total employees of the business for the purpose of establishing eligibility under the Program.

Owners who are Aboriginal and full-time employees who are Aboriginal must be ready to provide evidence in support of such status. The *Owner/Employee Certification* to be completed by each owner and full-time employee who is Aboriginal will state that the person meets the eligibility criteria and that the information supplied is true and complete. This certification will provide the person's consent to the verification of the information submitted.

Subcontracts

Evidence of the proportion of work done by subcontractors may include contracts between the contractor and subcontractors, invoices, and paid cheques.

Evidence that a subcontractor is an Aboriginal business where this is required to meet the minimum Aboriginal content of the contract, is the same as evidence that a prime contractor is an Aboriginal business.

Who is an Aboriginal Person for Purposes of the Set-Aside Program for Aboriginal Business?

An Aboriginal person is an Indian, Metis or Inuit who is ordinarily a resident in Canada.

Evidence of being an Aboriginal person will consist of such proof as:

- Indian registration in Canada
- membership in an affiliate of the Metis National Council or the Congress of Aboriginal Peoples, or other recognized Aboriginal organizations in Canada
- acceptance as an Aboriginal person by an established Aboriginal community in Canada
- enrolment or entitlement to be enrolled pursuant to a comprehensive land claim agreement
- membership or entitlement to membership in a group with an accepted comprehensive claim

Evidence of being resident in Canada includes a provincial or territorial driver's licence, a lease or other appropriate document.

For further information on the Set-Aside Program for Aboriginal Business, contact the Access to Federal Procurement Directorate in the Department of Indian and Northern Affairs at (819) 997-8383 or (819) 997-8746 or fax (819) 994-0445.

Factors to Satisfy Whether Aboriginal Persons Have True and Effective Control of an Aboriginal Business.

Factors that may be considered in determining whether Aboriginal persons have at least 51% ownership and control of an Aboriginal business include:

- Capital Stock and Equity Accounts, i.e., preferred stock, convertible securities, classes of common stock, warrants, options;
- Dividend policy and payments;
- Existence of Stock Options to employees;
- Different treatment of Equity transactions for Corporations, Partnerships, Joint Ventures,
- Community organizations, Cooperatives, etc.;
- Examination of Charter Documents, i.e., corporate charter, partnership agreement, financial structure;
- Concentration of ownership or managerial control in partners, stockholders, officers trustees and directors based definition of duties;
- Principal occupations and employer of the officers and directors to determine who they represent, i.e. banker, vested ownerships;
- Minutes of directors meetings and stockholders meetings for significant decisions that affect operations and direction;
- Executive and employee compensation records for indication of level of efforts associated with position;
- Nature of the business in comparison with the type of contract being negotiated;
- Cash management practices, i.e., payment of dividends - preferred dividends in arrears;
- Tax returns to identify ownership and business history;
- Goodwill contribution/contributed asset valuation to examine and ascertain the Fair Market value of non cash capital contributions;
- Contracts with owners, officers and employees to be fair and reasonable;
- Stockholder authority, i.e. appointments of officers, directors, auditors;

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- Trust agreements made between parties to influence ownership and control decisions;
 - Partnership - allocation and distribution of net income, i.e., provision for salaries, interest on capital and distribution share ratios;
 - Litigation proceedings over ownership;
 - Transfer pricing from non-Aboriginal joint venturer;
 - Payment of management or administrative fees;
 - Guarantees made by the Aboriginal business;
 - Collateral agreements.

Set-aside for Aboriginal Business

1. This procurement is set aside under the federal government's Procurement Strategy for Aboriginal Business, as detailed in Annex 9.4 Requirements for the Set-aside Program for Aboriginal Business, of the Supply Manual
2. The Supplier:
 - i. certifies that it meets, and will continue to meet throughout the duration of the Arrangement, the requirements described in the above-mentioned annex.
 - ii. agrees that any subcontractor it engages under the Arrangement must satisfy the requirements described in the above-mentioned annex.
 - iii. agrees to provide to Canada, immediately upon request, evidence supporting any subcontractor's compliance with the requirements described in the above-mentioned annex.
3. The Supplier must check the applicable box below:
 - i. () The Supplier is an Aboriginal business that is a sole proprietorship, band, limited company, co-operative, partnership or not-for-profit organization.
OR
 - ii. () The Supplier is either a joint venture consisting of two or more Aboriginal businesses or a joint venture between an Aboriginal business and a non-Aboriginal business.
4. The Supplier must check the applicable box below:
 - i. () The Aboriginal business has fewer than six full-time employees.
OR
 - ii. () The Aboriginal business has six or more full-time employees.
5. The Supplier must, upon request by Canada, provide all information and evidence supporting this certification. The Supplier must ensure that this evidence will be available for audit during normal business hours by a representative of Canada, who may make copies and take extracts from the evidence. The Supplier must provide all reasonably required facilities for any audits.
6. By submitting an arrangement, the Supplier certifies that the information submitted by the Supplier in response to the above requirements is accurate and complete.

If requested by the Supply Arrangement Authority, the Supplier must provide the following certification for each owner and employee who is Aboriginal:

1. I am _____ (insert "an owner" and/or "a full-time employee") of _____ (insert name of business), and an Aboriginal person, as defined in Annex 9.4 of the Supply Manual, entitled "Requirements for the Set-aside Program for Aboriginal Business".
2. I certify that the above statement is true and consent to its verification upon request by Canada.

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Printed name of owner and/or employee

Signature of owner and/or employee

Date

PART 6 - SUPPLY ARRANGEMENT AND RESULTING CONTRACT CLAUSES

A. SUPPLY ARRANGEMENT

1. Arrangement

The Supply Arrangement covers the Work described in the Statement of Work or Requirements for Services at Annex A.

The Supply Arrangement includes only those Services described in the Requirements for Services at Annex A and which are also identified at Annex D - Qualified Categories

2. Security Requirement

(a) The Supplier must hold, at minimum, a valid Designated Organization Screening (DOS) issued by the Canadian Industrial Security Directorate (CISD) as specified below, in order to remain a Supplier. The Supply Arrangement Authority may verify the Supplier's security clearance with the CISD of PWGSC at any time during the period of the Supply Arrangement.

1. The Contractor must, at all times during the performance of the Contract/Supply Arrangement, hold a valid Designated Organization Screening (DOS), issued by the Canadian Industrial Security Directorate (CISD), Public Works and Government Services Canada (PWGSC).
2. The Contractor personnel requiring access to PROTECTED information, assets or sensitive work site(s) must EACH hold a valid RELIABILITY STATUS, granted or approved by CISD/PWGSC.
3. The Contractor MUST NOT remove any PROTECTED information or assets from the identified work site(s), and the Contractor must ensure that its personnel are made aware of and comply with this restriction.
4. Subcontracts which contain security requirements are NOT to be awarded without the prior written permission of CISD/PWGSC.
5. The Contractor must comply with the provisions of the:
 - a) Security Requirements Check List and security guide (if applicable), attached at Annex B;
 - b) Industrial Security Manual (Latest Edition).

(b) The requirements to be procured under this Supply Arrangement are subject to the requirements in the Security Requirement Check Lists (SRCL's) identified in each individual bid solicitation. Samples of possible SRCL's are attached at Annex B to this Supply Arrangement, but other SRCL's may be used. Each bid solicitation will identify the SRCL that will apply to any resulting contract.

(c) In the case of a joint venture, for any given resulting contract the highest level of corporate security attainable through CISD of PWGSC is the lowest level held by any single member of the joint venture. For example, a joint venture with five (5) members is comprised of four (4) members holding a valid Facility Security Clearance (FSC) at the Secret level and one member holding a valid Designated Organizational Screening (DOS). The highest corporate security level

for which the joint venture would be considered under a bid solicitation run this Supply Arrangement would be DOS, until such time as the member holding a valid DOS clearance has requested sponsorship via the Supply Arrangement Authority and obtained a valid FSC at the Secret level as issued by CISD.

3. Standard Clauses and Conditions

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

3.1 General Conditions

2020 (2012-11-19) General Conditions - Supply Arrangement - Goods or Services, apply to and form part of the Supply Arrangement.

3.2 Supply Arrangement Reporting

- (a) The Supplier must compile and maintain records on its provision of services to the federal government under contracts resulting from the Supply Arrangement. This data must include all purchases paid for by a Government of Canada Acquisitions Card. The data must be submitted on a quarterly basis to the Public Works and Government Services Canada Supply Arrangement Authority.
- (b) The Quarterly periods are defined as follows:

Quarter	Period to be Covered	Due on or before
1 st	April 1 to June 30	July 15
2 nd	July 1 to September 30	October 15
3 rd	October 1 to December 31	January 15
4 th	January 1 to March 31	April 15

- (c) Electronic reports must be completed and forwarded to the Supply Arrangement Authority no later than 15 calendar days after the end of the quarterly period at the following e-mail address: Rapportsdutilisation.UtilizationReports@tpsgc-pwgsc.gc.ca with the email subject line of: ProServices Utilization Report, Q1 (2) (3) or (4), FY 20XX-XX.

An electronic version of the form in Excel spreadsheet format will be provided to the Supplier electronically by the Supply Arrangement Authority. Each quarterly usage report (QUR) must be submitted using the electronic template available [insert where template is available] (see Annex "C" for a sample QUR).

- (d) All data fields of the report must be completed as requested. A separate row of the spreadsheet is to be filled in for each Category identified in Annex D of this Supply Arrangement. If some data is not available, the reason must be indicated in the report. If no Services are provided during a given period, the Supplier must still provide a "NIL" report by filling in the column applicable to that Category, Level, Region and Metropolitan Area.

- (e) Failure to provide fully completed reports in accordance with the above instructions may result in the suspension or cancellation of the Supply Arrangement and/or the application of a vendor performance corrective measure.

4. Term of Supply Arrangement

4.1 Period of the Supply Arrangement

The Supply Arrangements have no defined end-dates and will remain valid until such time as Canada no longer considers them to be advantageous to use them.

5. Authorities

5.1 Supply Arrangement Authority

The Supply Arrangement Authority is:

Name: Peggy Gilmour
 Title: Supply Team Leader
 Public Works and Government Services Canada
 Branch: Acquisitions
 Directorate: Professional Services Procurement Directorate
 Address: 11 Laurier St, Gatineau, Quebec
 Telephone: 819-956-7642
 Facsimile: 819-956-2675
 E-mail address: peggy.gilmour@pwgsc-tpsgc.gc.ca

The Supply Arrangement Authority (or its authorized representative) is responsible for the issuance of the Supply Arrangement, its administration and its revision, if applicable. Upon the issuance of a bid solicitation under the Supply Arrangement, that solicitation's Contracting Authority is responsible for any contractual issues relating to the contract solicited. Any changes to the Supply Arrangement must be authorized in writing by the Supply Arrangement Authority.

5.2 Supplier's Representative (Main Supplier Contact)

This individual is the central point of contact within the Supplier for all matters pertaining to this Supply Arrangement. The Supplier confirms that this individual has the authority to bind the Supplier. It is the Supplier's sole responsibility to ensure that the information related to the Supplier Representative is correct and to inform the Supply Arrangement Authority of any change to it. If a replacement or a new Supplier Representative is required, the Supplier will:

- (i) Inform CPSS by e-mail at sspc.cpss@tpsgc-pwgsc.gc.ca and
- (ii) inform the Supply Arrangement Authority by e-mail at: peggy.gilmour@tpsgc-pwgsc.gc.ca

Name:
 Title:
 Address:
 Telephone:
 Facsimile:

The Supplier may designate another individual to represent the Supplier for administrative and technical purposes under any contract resulting from this Supply Arrangement.

6. Clients / Identified Users

The Identified Users include any government department, agency or Crown Corporation listed in Schedules I, I.1, II, III, of the *Financial Administration Act*, R.S., 1985, c. F-11 and any other party for which the Department of Public Works and Government Services has been authorized to act from time to time under section 16 of the *Department of Public Works and Government Services Act*.

7. On-going Opportunity for Qualification

A Notice will be posted on the Government Electronic Tendering Service (GETS) to allow new suppliers to become qualified after the supply arrangements have been issued as a result of the recompetition. Existing qualified suppliers, who have been issued a supply arrangement, will not be required to submit a new arrangement. This process enables the pre-qualification of new suppliers and/or further pre-qualification to add streams and/or categories for existing Suppliers already included in the ePortal of the Centralized Professional Services System (CPSS).

Suppliers may submit a bid for a Supply Arrangement at any time by responding to the most recent refresh terms and conditions posted on GETS. Canada reserves the right to issue supply arrangements to bidders who qualify throughout the entire period of the Supply Arrangement, as long as the bid is valid. Evaluations of such arrangements will be processed on a quarterly basis,.

8. Priority of Documents

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

- (a) the articles of the Supply Arrangement;
- (b) the general conditions 2020 (2012-11-19), General Conditions - Supply Arrangement - Goods or Services
- (c) Annex A, Requirements for Services;
- (d) Annex B, Generic Security Requirement Check Lists;
- (e) Annex C, Sample Quarterly Usage Report;
- (f) Annex D, Description of Categories
- (g) Annex E, Model Bid Solicitation
- (h) Annex F, Model Resulting Contract
- (i) the Supplier's arrangement dated _____ (*insert date of arrangement*) (*if the arrangement was clarified or amended, insert at the time of issuance of the arrangement: "as clarified on _____" or "as amended _____". (Insert date(s) of clarification(s) or amendment(s), if applicable).*

9. Certifications - Compliance

Compliance with the certifications and related documentation provided by the Supplier in the arrangement is a condition of the Supply Arrangement (SA) and subject to verification by Canada during the term of the SA and of any resulting contract that would continue beyond the period of the SA. If the Supplier does not comply with any certification, provide the related documentation or if it is determined that any certification made by

the Supplier in the arrangement is untrue, whether made knowingly or unknowingly, Canada has the right to terminate any resulting contract for default and suspend or cancel the SA.

10. Applicable Laws

The Supply Arrangement (SA) and any contract resulting from the SA must be interpreted and governed, and the relations between the parties determined, by the laws in force in Ontario, Canada unless otherwise stipulated in the Supplier's arrangement or a resulting contract.

11. Suspension or Cancellation of Qualification by Canada

In addition to the circumstances identified in the General Conditions 2020 09, Canada may, by sending written notice to the Supplier, suspend or cancel the Supply Arrangement where the Supplier has made public any information that conflicts with the terms, conditions, pricing or availability of systems identified in this Supply Arrangement, or where the Supplier is in default in carrying out any of its obligations under this Supply Arrangement.

12. Aboriginal Business Certification (if applicable)

- (a) The Supplier warrants that its certification of compliance is accurate and complete and in accordance with the "Requirements for the Set-aside Program for Aboriginal Business" detailed in Annex 9.4 of the Supply Manual.
- (b) The Supplier must keep proper records and documentation relating to the accuracy of the certification provided to Canada. The Contractor must obtain the written consent of the Contracting Authority before disposing of any such records or documentation before the expiration of six (6) years after final payment under the Contract, or until settlement of all outstanding claims and disputes, under the Contract, whichever is later. All such records and documentation must at all times during the retention period be open to audit by the representatives of Canada, who may make copies and take extracts. The Supplier must provide all reasonably required facilities for any audits.
- (c) Nothing in this clause must be interpreted as limiting the rights and remedies which Canada may otherwise have pursuant to the Contract

13. Delivery Requirements Outside a CLCSA

The Supply Arrangement is not to be used for deliveries within a Comprehensive Land Claims Settlement Area (CLCSA). All requirements for delivery within a CLCSA are to be submitted to the Department of Public Works and Government Services for individual processing.

14. Environmental Considerations

As part of Canada's policy directing federal departments and agencies to take the necessary steps to acquire products and services that have a lower impact on the environment than those traditionally acquired:

- (a) Paper consumption
Offerors should:
 - Provide and transmit draft reports, final reports, other documents and bids in electronic format. Should printed material be required, double sided printing in black and white format is the default unless otherwise specified by the Identified User.

- Printed material is requested on minimum recycled content of 30% and/or certified as originating from a sustainable managed forest.
- Recycle unneeded printed documents (in accordance with Security Requirements).

(b) Travel requirements

- The Supplier is encouraged to use video and/or teleconferencing where possible to cut down unnecessary travel.
- Use of Properties with Environmental Ratings: Contractors to the Government of Canada may access the PWGSC Accommodation directory, which includes Eco-Rated properties. When searching for accommodation, contractors can go to that link and search for properties with Environmental Ratings, identified by Green Keys or Green Leafs that will honour the pricing for contractors. <http://rehelv-acrd.tpsgc-pwgsc.gc.ca/rechercher-search-eng.aspx>
- Use of public/green transit where feasible.

15. Travel and Living

The Travel and Living expenses are calculated differently between the National Zone, Regions, and Metropolitan Areas and could affect the total cost of a Professional Services Supply Arrangement requirement. Accordingly if any contract resulting from a solicitation let under this supply arrangement permits payment to a Contractor in its basis of payment for Travel and Living Expenses, such expense will only be reimbursed in accordance with the information provided at the following CPSS link:

<http://www.tpsgc-pwgsc.gc.ca/app-acq/spc-cps/rfdso-sotli-eng.html>

16. National Zone, Regions, Metropolitan Areas, Local Offices

The document titled "Definitions of the National Zone, Regions and Metropolitan Areas" at the following link are incorporated by reference into this supply arrangement, with the exception that for the purposes of this supply arrangement, the National Zone is to be considered as another Region:

<http://www.tpsgc-pwgsc.gc.ca/app-acq/spc-cps/dznrrm-dnzmra-eng.html>

The following Regions and Metropolitan areas may receive Services under this supply arrangement where a Supplier is qualified to do so:

National Zone (Canada Wide)	
Regions:	Metropolitan Areas:
Atlantic	Halifax, Moncton
Quebec	Montreal, Quebec City
Ontario	Toronto
Western	Calgary, Edmonton, Saskatoon, Winnipeg
Pacific	Vancouver, Victoria
National Capital	National Capital Region

A "local office" is defined as having at least one full time employee, that is not a shared resource, working at this location. A supplier's security clearance level of a local office is the same or higher as the security information identified in the CPSS Supplier and Client Modules for the Supplier.

Note to Bidders:

By selecting the National Zone in the DCC, the Bidder is not automatically selecting all Regions and/or Metropolitan Areas.

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By selecting a Region in the DCC, the Bidder is not automatically selecting the Metropolitan areas within that Region. .

By selecting "all Regions and Metropolitan areas" in the DCC, the bidder is selecting all possible regions and metropolitan areas including the National Zone.

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B. BID SOLICITATION and
C. RESULTING CONTRACT CLAUSES

See attached document

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Attachment A

Bidder Profile /CPSS Supplier Module: Enrollment

Bidders must enter the "Company Information" in the "Data Collection Component" DCC of CPSS.

To access CPSS, follow the link: <http://www.tpsgc-pwgsc.gc.ca/app-acq/spc-cps/spc-cps-eng.html>

Attachment B

Supply Arrangement Technical Evaluation

All Bidders must meet the mandatory requirements set out in this Attachment B by demonstrating through the submission of proof in their bid that they meet the mandatory requirement.

M.1 Minimum Years in Business:

- (a) The Bidder must have carried on business as the same legal entity for a minimum of one year as of bid closing date. To demonstrate the requirement, a bidder must provide documented proof of its status (such as a certificate of incorporation, business registration or tax returns confirming the number of years it has been in business) ..
- (b) If the Bidder is a joint venture, one member of the joint venture must meet the one-year in business requirement. It must demonstrate this by the same method as (a) above.

M.2 Category Summary Substantiation

- (a) For each Category for which an arrangement is offered, a Bidder must provide information on one project per category that closely matches the services outlined for that Category as described in Annex A. The project must have been previously provided to a Client within the last five years immediately prior to the date of closing of this bid solicitation. There are no minimum number of Categories required per stream. This information, to be provided in CPSS Supplier Module - Data Collection Component, is explained in paragraph M.3 below
- (b) If the bidder is a joint venture, the bidder must provide information on one project per category, regardless of the number of members, that closely matches the services outlined for that Category as described in Annex A. The project must have been previously provided to a Client within the last five years immediately prior to the date of closing of this bid solicitation. There are no minimum number of Categories required per stream. This information, to be provided in the CPSS Supplier Module - DCC, is explained in paragraph M.3 below.

M.3 References Substantiation

1. To demonstrate this requirement, the Bidder must provide for each such Category Summary of M.2 above, one reference to be substantiated, with a second reference as a backup, for each Category, from a person who has never been employed by or acted as a consultant for the Bidder who can substantiate that the Professional Services were provided as required by this paragraph.

The Bidder must input the following information in the CPSS Supplier Module - DCC under Category substantiation:

- Select the streams you wish to offer, complete and save.
- Select the categories under the stream you wish to offer. All categories relevant to that particular stream will be listed in a table.
- On the Category - Substantiation page, you must substantiate your category as follows:
 - ◆ under the heading "Category Summaries", in the field "Project Summary Number", insert the title of the project that closely matches the services outlined for that Category
 - ◆ Under the heading "Category References", the Bidder must complete the fields of "Client (Government Department/Company Name)", "Contact Name", "Position", and

"Telephone"

Two email addresses from the same Client must be provided, which will be used to conduct reference(s) substantiation in accordance with item 4 below..

- ◆ Under the field "Contract/Project Reference #, the Bidder must insert the contract/call up number which matches the title of the project which the Bidder has input in the field "Project Summary Number".

Written reference letter(s) can be used to complete the above. The letter information must include the category, a title, contract/project reference #, and an email address to substantiate the letter. This letter must be provided with the paper copy of the bid submitted to Bid Receiving Unit (BRU) at bid closing date and time.

The same applies to Joint Venture bidders.

2. If the bidder is a joint venture, to demonstrate this requirement the Bidder must provide for each Category of M2, two email addresses from the same Client for each Category, who has never been employed by or acted as a consultant for the Bidder who can substantiate that the Professional Services were provided as required by paragraph 1 above.
3. The Bidder must submit the category reference substantiation details for the category within the Data Collection Component of the CPSS Supplier Module.
4. For each Category, substantiating information will be obtained based on an e-mail containing the following information, sent in accordance with the procedures detailed in item 5 below.

"Public Works and Government Services Canada has received a bid from (Insert Bidder's legal name) to provide informatics/non informatics professional services to the federal government. As part of PWGSC's evaluation process, your name and contact information were provided by the Bidder as the project reference that could substantiate that the Bidder has provided professional services that:

- (a) closely match the Categories listed in the table below.

(For a description of the Categories, please see the following link

For IT: <http://www.tpsgc.gc.ca/app-acq/sptb-tbps/categories-eng.html> **OR**

For Non-IT: <http://www.tpsgc-pwgsc.gc.ca/app-acq/spc-cps/spctsc-tpscc-eng.html>)

- (b) these services were provided within the past five years from (Insert date of issuance of the solicitation).

Please indicate which option applies for each Category listed below:

Options: Name of category(s), project title, contract/call up number and joint venture name:

"Yes" - the Bidder has provided my organization with the service(s) described above within the last five years from ___ date (date of bid solicitation issuance).

"No" - the Bidder has not provided my organization with the service(s) described within the last five years from ___ date (date of bid solicitation issuance).

"U" - I am unwilling or unable to provide any information about the listed services.

NOTE: If you are or have been employed by or acted as a consultant for the Bidder, this option "U" is the most appropriate response.

Should you have any questions regarding this reference substantiation process, please do not hesitate to contact the undersigned."

5. The procedures for conducting the reference substantiation process will be as follows:
- i. An email containing the content detailed in item 4 above, is sent to the first reference, as listed in the CPSS Supplier Module - DCC. In the event that no response is received from the first reference by the due date and time stated in the original email or indication is received via return email that the email sent to the first reference was improper (e.g. In error or no longer valid), or the first reference is absent for a period of time, the evaluation team will send the email containing the content detailed in item 4 above, to the second reference, as listed in the CPSS Supplier Module - DCC.
 - ii. If no response is received from the second reference by the due date and time indicated in the email, or if indication is received, via return email, that the email sent to the second reference was improper (e.g. In error or no longer valid), or the second reference is absent for a period of time, the reference check process will end. That particular Category will not be included in the Bidder's arrangement. The Bidder will be deemed non-responsive in that category and the category will not be included in the Bidder's arrangement. The Supplier can re-apply at the next refresh.
6. The response received from a reference will be used to determine the inclusion in the arrangement of each Category as follows:
- i. The reference indicates a "Yes" relating to the Category requested: This substantiates the Category and the Bidder's arrangement will include that Category if all other requirements are met.
 - ii. The reference indicates a "No" or "U" relating to a Category requested: This does not substantiate the reference and that particular Category will not be included in the Bidder's arrangement.
7. In the event both references decline the reference substantiation process for that category, the Supplier will be deemed non-responsive in that category. The Supplier can re-apply at the next refresh.

CATEGORIES	
IT	
STREAM #1 - (A) Application Services	
1.1 Application/Software Architect	1.10 Test Coordinator
1.2 ERP Functional Analyst	1.11 Tester
1.3 ERP Programmer Analyst	1.12 WEB Architect
1.4 ERP System Analyst	1.13 WEB Designer
1.5 ERP Technical Analyst	1.14 WEB Developer
1.6 Programmer/Software Developer	1.15 WEB Graphics Designer
1.7 Programmer/Analyst	1.16 WEB Multimedia Content Consultant
1.8 System Analyst	1.17 Webmaster
1.9 System Auditor	
STREAM #2 - (G) Geomatics Services	
2.1 Geomatics Analyst	2.7 GIS Programmer/Analyst

2.2 Geomatics Specialist	2.8 GIS Project Manager
2.3 GIS Applications Analyst	2.9 GIS System Architect
2.4 GIS Applications Architect	2.10 GIS Web Mapping Developer
2.5 GIS Data Architect	2.11 Mapping Technician
2.6 GIS Infrastructure Architect	

STREAM #3 - (I) IM/IT Services

3.1 Data Conversion Specialist	3.7 Platform Analyst
3.2 Database Administrator	3.8 Storage Architect
3.3 Database Analyst	3.9 System Administrator
3.4 Database Modeller / IM Modeller	3.10 Technical Architect
3.5 IM Architect	3.11 Technology Architect
3.6 Network Analyst	

STREAM #4 - (B) Business Services

4.1 Business Analyst	4.8 Call Centre Consultant
4.2 Business Architect	4.9 Courseware Developer **
4.3 Business Consultant	4.10 Help Desk Specialist
4.4 Business Continuity/Disaster Recovery Specialist	4.11 Instructor, IT **
4.5 Business Process Re-engineering (BPR) Consultant	4.12 Network Support Specialist
4.6 Business System Analyst	4.13 Operations Support Specialist
B.7 Business Transformation Architect	4.14 Technical Writer

** To be used for IT courseware and instructor requirements only. Non-IT courseware & instructor requirements must be processed through the Learning Services Supply Arrangement E60ZH-070003

STREAM #5 - (P) Project Management Services

5.1 Change Management Consultant	5.7 Project Coordinator
5.2 Enterprise Architect	5.8 Project Leader
5.3 HR Consultant	5.9 Project Manager
5.4 Organizational Development Consultant	5.10 Project Scheduler
5.5 Project Executive	5.11 Quality Assurance Specialist/Analyst
5.6 Project Administrator	5.12 Risk Management Specialist

STREAM #6 - (C) Cyber Protection Services

6.1 Strategic IT Security Planning & Protection Consultant	6.10 IT Security Installation Specialist
6.2 IT Security Methodology, Policy and Procedures Analyst	6.11 IT Security VA Specialist
6.3 IT Security TRA and C&A Analyst	6.12 Incident Management Specialist
6.4 IT Security Product Evaluation Specialist	6.13 Physical IT Security Specialist
6.5 PKI Specialist	6.14 IT Security R&D Specialist
6.6 IT Security Engineer	6.15 Computer Forensics Specialist
6.7 IT security Design Specialist	6.16 PIA Specialist
6.8 Network Security Analyst	6.17 EMSEC Security Specialist
6.9 IT Security Systems Operator	

STREAM #7 - (T) Telecommunications Services

7.1 Radio Frequency (RF) Systems Specialist	7.6 Telecommunication System Specialist
7.2 Satellite Communication Specialist	7.7 Antenna Structure Engineer

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Amd. No. - N° de la modif.

Buyer ID - Id de l'acheteur

E60ZT-120001/D

009zt

Client Ref. No. - N° de réf. du client

File No. - N° du dossier

CCC No./N° CCC - FMS No/ N° VME

E60ZT-120001

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7.3 Telecommunication Cable Plant Designer	7.8 Radio Frequency (RF) Engineer
7.4 Telecommunication Technician	7.9 Lineman Technician
7.5 Private Branch Exchange (PBX) Technologist	
Non IT	
STREAM #8 - Human Resources Services	
8.1 Human Resources Consultant	8.6 HR Information System Consultant
8.2 Organizational Design & Classification Cons.	8.7 Leadership Development Consultant
8.3 Employment Equity Consultant	8.8 Staffing Consultant
8.4 Employee Relation Consultant	8.9 HR Policy Development Consultant
8.5 Compensation Consultant	8.10 HR Assistant Consultant
STREAM #9 - Business Consulting/Change Management	
9.1 Business Analyst	9.9 Statistical Analyst
9.2 Business Continuity Consultant	9.10 Knowledge Management Consultant
9.3 Business Consultant	9.11 Information Records Management/ Recordkeeping Specialist
9.4 Organization Development Consultant	9.12 Evaluation Services Consultant
9.5 Business Process Consultant	9.13 Performance Measurement Consultant
9.6 Change Management Consultant	9.14 Subject Matter Expert
9.7 Needs Analysis And Research Consultant	9.15 Facilitator Category
9.8 Business Architect	
STREAM #10 - Project Management Services	
10.1 Project Administrator	10.7 Procurement Specialist
10.2 Project Manager	10.8 Financial Specialist
10.3 Project Leader/Executive	10.9 Project Monitor
10.4 Project Planner	10.10 Technical Writer
10.5 Quality Assurance/Management Specialist	10.11 Communications Consultant
10.6 Risk Management Specialist	
STREAM #11 - Real Property Project Management Services	
11.1 Project Administrator for Real Property	11.5 Financial/Cost Specialist for Real Property
11.2 Project Manager for Real Property	11.6 Portfolio Planner for Real Property
11.3 Project Leader for Real Property	11.7 Claims Analyst
11.4 Project Planner for Real Property	
STREAM #12 - Technical, Engineering and Maintenance Services	
12.1 Draftsperson/Illustrator	12.9 Handwear/Knitted Footwear and Accessories Technologist
12.2 Technician	12.10 Footwear Technologist
12.3 Engineer Graduate	12.11 Pattern Design, Development, and Sizing Technologist
12.4 Professional Engineer (P.Eng)	12.12 Clothing and Personal Protection Equipment Design and Prototyping Technologist
12.5 Clothing Technologist	12.13 Badges/Insignia/Ceremonial Accoutrements Technologist
12.6 Textile Technologist	12.14 Integrated Logistics Support (ILS) Specialist
12.7 Personal Protection Equipment Technologist	12.15 Technical Clerk
12.8 Nuclear/Biological/Chemical (NBC) Personal Protection Technologist	12.16 Life Cycle Management Specialist

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Attachment C

Certifications/CPSS Supplier Module - DCC

Bidders must enter the "Certifications" in the Centralized Professional Services System (CPSS) Supplier Module - DCC

To access CPSS, follow the link:

<http://www.tpsgc-pwgsc.gc.ca/app-acq/spc-cps/spc-cps-eng.html>

Attachment D

Technical Response Template/CPSS Supplier Module - DCC

Bidders must enter the technical responses in CPSS Supplier Module - DCC.

To access CPSS Supplier Module, follow the link:

<https://sspc-fournisseur-cpss-supplier.tpsgc-pwgsc.gc.ca/Indiquerouvertureession-ShowLogin-Eng.action?lang=eng>

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ANNEX A

Requirements for Services

(attached as a separate document)

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ANNEX B

Generic Security Requirements Check List

These can be found on the CPSS website as follows:

<http://www.tpsgc-pwgsc.gc.ca/app-acq/spc-cps/31-eng.html>

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ANNEX C

Sample Quarterly Report Form

These can be found on CPSS website at the following link:

<http://www.tpsgc-pwgsc.gc.ca/app-acq/spc-cps/ocannexd-soannexd-eng.html>

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ANNEX D

Category of Descriptions

These are attached as a separate document under Annex A, Requirements for Services

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File No. - N° du dossier

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Attachment E

Bidder - Front Page

Bidders Statement (All bidders)

ALL bidders must sign and submit the following "Bidder's Statement" with the hard copy of their bid to the Bid Receiving Unit by the date and, time of the date of bid submission:

We certify that all statements made with regard to these requirements are accurate and factual, and we are aware that the Department of Public Works and Government Services Canada reserves the right to verify any information provided in this regard. Untrue statements may result in the Offeror's proposal being declared non-compliant in its entirety, current TBIPS SO/SA Holders becoming ineligible to receive further solicitations, and any other action which Canada may consider appropriate.

SIGNATURE: _____ DATE: _____

Print Name: _____

Legal Name of Bidder : _____

(ALL BIDDERS: Print, sign, and submit this certification with the hard copy of your bid)

B. BID SOLICITATION

1. Bid Solicitation Documents

Canada will use the bid solicitation templates **for medium complexity requirements**; available in the [Standard Acquisition Clauses and Conditions Manual](https://buyandsell.gc.ca/policy-and-guidelines/standard-acquisition-clauses-and-conditions-manual) (https://buyandsell.gc.ca/policy-and-guidelines/standard-acquisition-clauses-and-conditions-manual)

The bid solicitation will contain as a minimum the following:

- (a) security requirements;
- (b) a complete description of the Work to be performed;
- (c) 2003, Standard Instructions - Goods or Services - Competitive Requirements; **OR** 2004, Standard Instructions - Goods or Services - Non-competitive Requirements;
- (d) bid preparation instructions;
- (e) instructions for the submission of bids (address for submission of bids, bid closing date and time);
- (f) evaluation procedures and basis of selection;
- (g) financial capability (*if applicable*);
- (h) certifications, as applicable to the evaluation of resources;
- (i) conditions of the resulting contract.

2. Bid Solicitation Process - Requirements Valued at or below NAFTA Threshold

2.1 Bids will be solicited for specific requirements within the scope of the Supply Arrangement (SA) from suppliers who have been issued a SA.

A minimum of two Suppliers must be invited to submit a proposal via e-mail, with the Client (Identified User):

- (a) selecting by name two Suppliers from the CPSS Client Module, or
- (b) selecting by name one Supplier from the CPSS Client Module and the second Supplier being selected randomly by the CPSS Client Module, or
- (c) not selecting any Supplier by name in which case the CPSS Client Module will select by random two Suppliers.

The CPSS Client Module will automatically extend the search at a metropolitan area to the regional level, if the search results produce a list of less than 3 suppliers.

Direct Requirements: Identified Users may enter into a contract with a Supplier appearing in the results from a search conducted by a Client in the CPSS Client Module, without soliciting bids where specifically permitted under the Government Contracting Regulations and provided that it meets all required internal approvals to the Identified User."

Suppliers with local offices will also be displayed in a search result for a requirement less than \$25K.

A local office of a Supplier is also part of the search results, with a local office of a Supplier being defined as having at least 1 full time employee working at the location. This employee is not to be a shared resource. The security of a local office is the same as the security information in the CPSS Supplier and Client Modules for the Supplier.

2.2 **Minimum Period to submit bid:**

As part of the harmonized business rules, PWGSC recommends a minimum of five calendar days; however, it is up to the Identified Users to determine the minimum number of days in accordance with the Government Contracting Regulations.

2.2 **Identification of Contract Authorities:**

Provided a Client has the legal authority to contract, it may choose to award contracts under this SA below the NAFTA threshold (currently \$78,500). The Supplier agrees only to perform individual contracts made by an authorized representative of Canada pursuant to this SA that do not exceed the applicable Contract Authority value limitations.

C. RESULTING CONTRACT CLAUSES

1. General

The conditions of any contract awarded under the Supply Arrangement will be in accordance with the resulting contract clauses of the medium complexity template used for the bid solicitation [template](#), which is set out in the [Standard Acquisition Clauses and Conditions Manual](#) (<https://buyandsell.gc.ca/policy-and-guidelines/standard-acquisition-clauses-and-conditions-manual>) issued by Public Works and Government Services Canada.

2. Security Requirement

Clients can view the Common Centralized Professional Services: Security Requirement Checklists (SRCLs) at <http://www.tpsgc-pwgsc.gc.ca/app-acq/spc-cps/spc-cps-eng.html>

3. Statement of Work

The Work to be performed is detailed under Annex A of the resulting contract clauses.

4. Standard Clauses and Conditions

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

3.1 General Conditions

2020 (2012-11-19) General Conditions - Supply Arrangement - Goods or Services, apply to and form part of the Supply Arrangement

4. Term of Contract

4.1 Period of the Contract

The Work is to be performed during the period of _____ (fill in start date of the work) to _____ (fill in end date of the work).

4.2 Option to Extend the Contract

A9009A SACC Clause

5. Authorities

5.1 Contracting Authority

The Contracting Authority for the Contract is:

Name: _____

Title: _____

Public Works and Government Services Canada

Acquisitions Branch

Directorate: _____

Address: _____

Telephone: _____
Facsimile: _____
E-mail address: _____

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

5.2 Project Authority

The Project Authority for the Contract is:

Name: _____
Title: _____
Organization: _____
Address: _____

Telephone : _____
Facsimile: _____
E-mail address: _____

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

5.3 Contractor's Representative

(Fill in or delete as applicable)

6. Payment

6.1 Basis of Payment

C0207C (2011-05-16) Firm Price, Firm Unit Price(s) or Firm Lot Price(s)

6.2 Limitation of Expenditure

Remark to Contracting Authority: *Use applicable SACC Manual clauses or other approved clauses related to invoicing instructions. Invoicing instructions also cover claims for progress payment; therefore any reference to invoices would also cover claims for progress payment. Examples of clauses to insert in full text: H3020C, H3022C, H3024C, H5001C.*

7. Invoicing Instructions

8. Certifications

8.1 Compliance

Compliance with the certifications and related documentation provided by the Contractor in its bid is a condition of the Contract and subject to verification by Canada during the term of the Contract. If the Contractor does not comply with any certification, provide the related documentation or if it is determined

that any certification made by the Contractor in its bid is untrue, whether made knowingly or unknowingly, Canada has the right, pursuant to the default provision of the Contract, to terminate the Contract for default.

9. Applicable Laws

The Contract must be interpreted and governed, and the relations between the parties determined, by the laws in force in _____. (*Insert the name of the province or territory as specified by the Bidder in its bid, if applicable*)

10. Priority of Documents

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

- (a) the Articles of Agreement;
- (b) the supplemental general conditions _____ (*insert number, date and title*);
- (c) the general conditions _____ (*insert number, date and title*);
- (d) Annex X, Statement of Work;
- (e) Annex X, Security Requirements Check List (*if applicable*);
- (f) the Contractor's bid dated _____ (*insert date of bid*) (*If the bid was clarified or amended, insert at the time of contract award: “, as clarified on _____” or “, as amended on _____” and insert date(s) of clarification(s) or amendment(s)*)

Remark to Contracting Authority: *If applicable, use the following clause when the requirement is a defence contract as defined in the Defence Production Act.*

11. Defence Contract

SACC Manual clause A9006C _____ (*insert date*) Defence Contract

12. Travel and Living

Pre-Authorized Travel and Living Expenses

Canada will reimburse the Contractor for its pre-authorized travel and living expenses reasonably and properly incurred in the performance of the Work in accordance with the clause titled “Travel and Living” of the Supply Arrangement which is also available at: <http://www.tpsgc-pwgsc.gc.ca/app-acq/spc-cps/rfdso-sotli-eng.html>

All payments are subject to government audit.

Estimated Cost: \$ _____

ANNEX A

REQUIREMENTS FOR SERVICES (Category Descriptions)

IT Streams

STREAM 1 - (A) APPLICATIONS SERVICES

Note: in TBIPS, was A stream

1.1 Application/Software Architect

Experience Levels

Level 1: < 5 years of experience

Level 2: 5-<10 years of experience

Level 3: 10+ years of experience

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.

Specialties could include but are not limited to:

- | | | | | |
|-------------------|--------------|---------------------|-----------------|----------------|
| • ActiveX | • HML | • MIL-STD-498 | • PowerBuilder | • TCP/IP |
| • ADS | • HTML | • MS Access | • Rational Rose | • Unisys DBII |
| • ASP | • IBM DB2 | • MS SQL | • RPG | • Unix |
| • BPWin | • IDMS | • .NET | • RUP | • Visual Basic |
| • C++ | • Impromptu | • Netron/CAP | • SAP | • Visual C++ |
| • CICS | • IMS | • ODBC | • SQL Server | • XML |
| • Cold Fusion | • Informix | • OLAP | • SQL*DBA | |
| • CORBA | • Ingres | • Oracle | • SQL*Forms | |
| • Crystal Reports | • J2EE | • Oracle CASE | • SQL*Menu | |
| • Delphi | • Java | • Oracle Financials | • SQL*Net | |
| • EbXML | • JavaScript | • Perl | • SQL*Plus | |
| • ERWin | • JDBC | • PHP | • SQL*Report | |
| | • JSP | • PL/SQL | • Sybase | |

1.2 ERP Functional Analyst

Experience Levels

Level 1: < 5 years of experience

Level 2: 5-<10 years of experience

Level 3: 10+ years of experience

Responsibilities could include but are not limited to:

- Develop and document ERP functional, business, and/or system requirements specifications.

- Develop and document screen, report and interface requirements.
- Develop functional, business, and/or system interface or capability interaction.
- Gather and analyze information to establish the functional needs of a system or project.
- Design methods and procedures for computer systems, and sub-systems of larger systems.
- Develop, test and implement small computer systems, and sub-systems of larger systems.
- Document forms, manuals, programs, data files, and procedures.

Specialties could include but are not limited to:

- Impromptu
- JDEdwards
- Oracle
- PeopleSoft
- SAP
- Syteline

1.3 ERP Programmer Analyst

Experience Levels

Level 1: <5 years of experience
 Level 2: 5-<10 years of experience
 Level 3: 10+ years of experience

Responsibilities could include but are not limited to:

- Develop low-level detailed requirements, programming, and systems development of ERP Systems.
- System testing and implementation.

Specialties could include but are not limited to:

- Impromptu
- JDEdwards
- Oracle
- PeopleSoft
- SAP
- Syteline

1.4 ERP System Analyst

Experience Levels

Level 1: <5 years of experience
 Level 2: 5-<10 years of experience
 Level 3: 10+ years of experience

Responsibilities could include but are not limited to:

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

Specialties could include but are not limited to:

- Impromptu
- JDEdwards
- Oracle
- PeopleSoft
- SAP
- Syteline

1.5 ERP Technical Analyst

Experience Levels

Level 1: <5 years of experience
 Level 2: 5-<10 years of experience
 Level 3: 10+ years of experience

Responsibilities could include but are not limited to:

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

- Establish technical standards for the technical framework.

Specialties could include but are not limited to:

- Impromptu
- Oracle
- SAP
- JDEdwards
- PeopleSoft
- Syteline

1.6 Programmer/Software Developer

Experience Levels

- Level 1: <5 years of experience
- Level 2: 5-<10 years of experience
- Level 3: 10+ years of experience

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.

Specialties could include but are not limited to:

- | | | | | |
|-------------------|--------------|---------------------|-----------------|----------------|
| • ActiveX | • HML | • MIL-STD-498 | • PowerBuilder | • TCP/IP |
| • ADS | • HTML | • MS Access | • Rational Rose | • Unisys DBII |
| • ASP | • IBM DB2 | • MS SQL | • RPG | • Unix |
| • BPWin | • IDMS | • .NET | • RUP | • Visual Basic |
| • C++ | • Impromptu | • Netron/CAP | • SAP | • Visual C++ |
| • CICS | • IMS | • ODBC | • SQL Server | • XML |
| • Cold Fusion | • Informix | • OLAP | • SQL*DBA | |
| • CORBA | • Ingres | • Oracle | • SQL*Forms | |
| • Crystal Reports | • J2EE | • Oracle CASE | • SQL*Menu | |
| • Delphi | • Java | • Oracle Financials | • SQL*Net | |
| • EbXML | • JavaScript | • Perl | • SQL*Plus | |
| • ERWin | • JDBC | • PHP | • SQL*Report | |
| | • JSP | • PL/SQL | • Sybase | |

1.7 Programmer/Analyst

Experience Levels

- Level 1: < 5 years of experience
- Level 2: 5-<10 years of experience
- Level 3: 10+ years of experience

Responsibilities could include but are not limited to:

- Create and modify code and software.
- Create and modify screens and reports.
- Gather and analyze data for the conduct of studies to establish the technical and economic feasibility of proposed computer systems, and for the development of functional and system design specifications.
- Design methods and procedures for small computer systems, and sub-system of larger systems.

- Develop, test and implement small computer systems, and sub-systems of larger systems.
- Produce forms, manuals, programs, data files, and procedures for systems and/or applications.

Specialties could include but are not limited to:

- | | | | | |
|-------------------|--------------|---------------------|-----------------|----------------|
| • ActiveX | • HML | • MIL-STD-498 | • PowerBuilder | • TCP/IP |
| • ADS | • HTML | • MS Access | • Rational Rose | • Unisys DBII |
| • ASP | • IBM DB2 | • MS SQL | • RPG | • Unix |
| • BPWin | • IDMS | • .NET | • RUP | • Visual Basic |
| • C++ | • Impromptu | • Netron/CAP | • SAP | • Visual C++ |
| • CICS | • IMS | • ODBC | • SQL Server | • XML |
| • Cold Fusion | • Informix | • OLAP | • SQL*DBA | |
| • CORBA | • Ingres | • Oracle | • SQL*Forms | |
| • Crystal Reports | • J2EE | • Oracle CASE | • SQL*Menu | |
| • Delphi | • Java | • Oracle Financials | • SQL*Net | |
| • EbXML | • JavaScript | • Perl | • SQL*Plus | |
| • ERWin | • JDBC | • PHP | • SQL*Report | |
| | • JSP | • PL/SQL | • Sybase | |

1.8 System Analyst

Experience Levels

- Level 1: <5 years of experience
 Level 2: 5-<10 years of experience
 Level 3: 10+ years of experience

Responsibilities could include but are not limited to:

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

Specialties could include but are not limited to:

- | | | | | |
|-------------------|--------------|---------------------|-----------------|---------------|
| • ActiveX | • HML | • MIL-STD-498 | • PowerBuilder | • TCP/IP |
| • ADS | • HTML | • MS Access | • Rational Rose | • Unisys DBII |
| • ASP | • IBM DB2 | • MS SQL | • RPG | • Unix |
| • BPWin | • IDMS | • .NET | • RUP | • Visual |
| • C++ | • Impromptu | • Netron/CAP | • SAP | • Basic |
| • CICS | • IMS | • ODBC | • SQL Server | • Visual C++ |
| • Cold Fusion | • Informix | • OLAP | • SQL*DBA | • XML |
| • CORBA | • Ingres | • Oracle | • SQL*Forms | |
| • Crystal Reports | • J2EE | • Oracle CASE | • SQL*Menu | |
| • Delphi | • Java | • Oracle Financials | • SQL*Net | |
| • EbXML | • JavaScript | • Perl | • SQL*Plus | |
| • ERWin | • JDBC | • PHP | • SQL*Report | |
| | • JSP | • PL/SQL | • Sybase | |

1.9 System Auditor

Experience Levels

- Level 1: <5 years of experience
 Level 2: 5-<10 years of experience
 Level 3: 10+ years of experience

Responsibilities could include but are not limited to:

- Review organizational IT policy, standards and procedures and provide advice on their adequacy.
- Conduct systems under development reviews by reviewing project documentation, conducting interviews, assessing work completed, and, based on findings, reporting on compliance with policy, standards and procedures; and, progress against plan.

- Conduct reviews of systems recently implemented and reporting on:
 - benefits actually achieved versus projected benefits,
 - features actually delivered versus stated requirements,
 - the adequacy of controls and system security features,
 - user satisfaction based on surveys or interviews,
 - system performance and reliability.
- Review systems that have been in production status for some time and report on issues, deficiencies, and shortcomings.

Specialties could include but are not limited to:

-
-
-
-
-

1.10 Test Coordinator

Experience Levels

Level 1: <5years of experience

Level 2: 5-<10 years of experience

Level 3: 10+ years of experience

Responsibilities could include but are not limited to:

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

Specialties could include but are not limited to:

- | | | | |
|----------|---------------|---------------------|----------------|
| • ASP | • HML, XML or | • Java | • SAP |
| • C++ | • EbXML | • MS SQL | • Sybase |
| • COBOL | • IBM DB2DMS | • Netron/CAP | • Unisys DBII |
| • CORBA | • IMS | • Oracle Peoplesoft | • Unix |
| • Delphi | • Informix | • PHP | • Visual Basic |
| | • Ingres | • PowerBuilder | |

1.11 Tester

Experience Levels

Level 1: <5 years of experience

Level 2: 5-<10 years of experience

Level 3: 10+ years of experience

Responsibilities could include but are not limited to:

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

Specialties could include but are not limited to:

-

1.12 WEB Architect

Experience Levels

Level 1: <5 years of experience

Level 2: 5-<10 years of experience

Level 3: 10+ years of experience

Responsibilities could include but are not limited to:

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

Specialties could include but are not limited to:

- ActiveX
- HML
- Java
- .NET
- XML
- EbXML
- HTML
- JavaScript
- Perl

1.13 WEB Designer

Experience Levels

Level 1: <5 years of experience

Level 2: 5-<10 years of experience

Level 3: 10+ years of experience

Responsibilities could include but are not limited to:

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

Specialties could include but are not limited to:

- ActiveX
- HML
- Java
- .NET
- XML
- EbXML
- HTML
- JavaScript
- Perl

1.14 WEB Developer

Experience Levels

Level 1: <5 years of experience

Level 2: 5-<10 years of experience

Level 3: 10+ years of experience

Responsibilities could include but are not limited to:

- 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.

Specialties could include but are not limited to:

- ActiveX
- HML
- Java
- .NET
- XML
- EbXML
- HTML
- JavaScript
- Perl

1.15 Web Graphics Designer

Experience Levels

Level 1: <5 years of experience

Level 2: 5-<10 years of experience

Level 3: 10+ years of experience

Responsibilities could include but are not limited to:

- Create web pages including graphic design.
- Develop and implement usability tests, analysis result and modify design accordingly.
- Develop flowcharts (web site flow maps) depicting navigation and 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 pages.
- Develop interactive prototypes showing basic form and functionality used for both usability testing and presentations.

Specialties could include but are not limited to:

- ActiveX
- HML
- Java
- .NET
- XML
- EbXML
- HTML
- JavaScript
- Perl

1.16 Web Multi-media Content Consultant

Experience Levels

Level 1: <5 years of experience

Level 2: 5-<10 years of experience

Level 3: 10+ years of experience

Responsibilities could include but are not limited to:

- Create web pages including multi-media design.
- Develop and implement usability tests, analyze 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.

Specialties could include but are not limited to:

- ActiveX
- HML
- Java
- .NET
- XML
- EbXML
- HTML
- JavaScript
- Perl

1.17 Webmaster

Experience Levels

Level 1:<5 years of experience

Level 2:5-<10 years of experience

Level 3:10+ years of experience

Responsibilities could include but are not limited to:

- Create web pages including graphics and general web site design.
- Develop and implement usability tests, analyze 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 for both usability testing and presentations.

Specialties could include but are not limited to:

- ActiveX
- HML
- Java
- .NET
- XML
- EbXML
- HTML
- JavaScript
- Perl

STREAM 2 - (G) GEOMATICS SERVICES

2.1 Geomatics Analyst

Experience Levels

Level 1: <5 years of experience

Level 2: 5-<10 years of experience

Level 3: 10+ years of experience

Responsibilities could include but are not limited to:

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

Specialties could include but are not limited to:

- GIS Product Suites

2.2 Geomatics Specialist

Experience Levels

Level 1: <5 years of experience

Level 2: 5-<10 years of experience

Level 3: 10+ years of experience

Responsibilities could include but are not limited to:

- Implements data structures and files, sub-systems and modules, programs, batch, on line, and production monitoring procedures, testing strategy and systems.
- Tests and implements small systems and sub-systems of larger systems.
- Produces forms, manuals, programs, data files and procedures.
- Produces components of an operational system including all forms, manuals, programs, data files and procedures.
- Performs analysis and modeling
- Creates, updates, revises and documents GIS and/or earth observation data sets.
- Creates appropriate data, analysis and output products (maps, reports) to meet project objectives.
- Restructures data from various sources and in diverse formats.
- Creates and updates metadata.
- Creates updates and maintains procedures and standards.
- Supports the design of, and writes, GIS and remote sensing related programs.

- Analyze and process earth observation (EO) image and GIS data.

Specialties could include but are not limited to:

- GIS Product Suites

2.3 GIS Applications Analyst

Experience Levels

Level 1:<5 years of experience

Level 2:5-<10 years of experience

Level 3:10+ years of experience

Responsibilities could include but are not limited to:

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

Specialties could include but are not limited to:

- GIS Product Suites

2.4 GIS Application Architect

Experience Levels

Level 1: <5 years of experience

Level 2: 5-<10 years of experience

Level 3: 10+ years of experience

Responsibilities could include but are not limited to:

- Design and develop the application architecture for the project, in the context of the overall system architecture.
- Select the paradigm and technology for application program-to-program communication (APPC) among the components.
- Define the application tiers, frameworks, components types and interfaces.
- Specify and provide ownership of reusable application components or reusable application code.

- Identify key business and technology drivers that impact application architectures, such as end-user community requirements, existing software distribution capabilities, existing application environment (including legacy and packaged systems), and performance and availability requirements, and design application architecture to meet these considerations.
- Define strategies and plans for application rationalization and retirement in the context of the project's phasing strategy.
- Develop and maintain coding standards.
- Lead the application development team in architecture decisions and review/authorize development team architecture decisions.
- Lead code design reviews.
- Monitor and support the development of the system's applications to ensure they are compliant with the application architecture, and refine the application architecture as required.

Specialties could include but are not limited to:

- GIS Product Suites

2.5 GIS Data Architect

Experience Levels

Level 1: <5 years of experience

Level 2: 5-<10 years of experience

Level 3: 10+ years of experience

Responsibilities could include but are not limited to:

- Design and develop the data architecture for the project, in the context of the overall system architecture.
- Set Data Policy and the technical solution for the management, storage, access, navigation, movement, and transformation of data.
- Specify recommended DBMS and ETL tools and technologies for structured and unstructured content.
- Design the Metadata Repository.
- Create a data model for the project that is independent of the technology solution.
- Examine and enforce opportunities to provide data reuse, balancing the issues of centralization and replication.
- Ensure the preservation of strategic data assets as applications and technologies evolve.
- Monitor and support the development of the system's data to ensure it is compliant with the data architecture, and refine the data architecture as required.

Specialties could include but are not limited to:

- GIS Product Suites

2.6 GIS Infrastructure Architect

Experience Levels

Level 1: <5 years of experience

Level 2: 5-<10 years of experience

Level 3: 10+ years of experience

Responsibilities could include but are not limited to:

- Design and develop the infrastructure architecture for the project, in the context of the overall system architecture.
- Focus on the standards and technologies for enabling systems performance qualities, such as availability, scalability, recoverability, etc.
- Evaluate and select the system's server hardware, operating system and job control.
- Support the GIS Application Architect in selecting the application framework.
- Balance the quality issues cost vs. robustness, and hardware architecture.
- In conjunction with the System Architecture team, size the application and select the hardware and software configuration.
- Establish a process to monitor system performance against requirements.
- Monitor and support the development of the system's infrastructure to ensure it is compliant with the infrastructure architecture, and refine the infrastructure architecture as required.

Specialties could include but are not limited to:

- GIS Product Suites

2.7 GIS Programmer/Analyst

Experience Levels

Level 1: <5 years of experience

Level 2: 5-<10 years of experience

Level 3: 10+ years of experience

Responsibilities could include but are not limited to:

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

Specialties could include but are not limited to:

- GIS Product Suites

2.8 GIS Project Manager

Experience Levels

Level 1: <5 years of experience

Level 2: 5-<10 years of experience

Level 3: 10+ years of experience

Responsibilities could include but are not limited to:

Within both the IT and GIS system environments:

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

Specialties could include but are not limited to:

- GIS Product Suites

2.9 GIS System Architect

Experience Levels

Level 1: <5 years of experience

Level 2: 5-<10 years of experience

Level 3: 10+ years of experience

Responsibilities could include but are not limited to:

- Design the overall target architecture of the IT system to meet the formally established requirements (functional and non-functional) of a project.
- Monitor and support the development of the system to ensure it is compliant with the target architecture and refine the target architecture as required.
- Ensure the integration of the system's component architectures – data, application, infrastructure, etc., into the overall target system architecture.
- Ensure the integration of the system architecture into the sponsoring organization's enterprise architecture.
- Establish phased project plans that lead to a completed target architecture.

- Leading the development of architecture Guiding Principles and architecture blueprints.
- Ensure the systems overall viability throughout the systems development and implementation phases;
- ensure the solution and the scope are compliant with the stated requirements (quality control);
- Balancing trade-offs between requirements and costs for the system and communicating the issues to the Technical Authority
- Survey emerging developments, new technologies, standards and methodologies that will have a positive impact on the system architecture, and incorporate these into the system architecture.
- Manage the System Architecture team to achieve these goals.

Specialties could include but are not limited to:

- GIS Product Suites

2.10 GIS Web Mapping Developer

Experience Levels

Level 1: <5 years of experience

Level 2: 5-<10 years of experience

Level 3: 10+ years of experience

Responsibilities could include but are not limited to:

- 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 IT system's "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.

Specialties could include but are not limited to:

- | | | |
|----------------------|--------|--------------|
| • GIS Product Suites | • CGI | • JavaScript |
| | • HTML | • Perl |

2.11 Mapping Technician

Experience Levels

Level 1: <5 years of experience

Level 2: 5-<10 years of experience

Level 3: 10+ years of experience

Responsibilities could include but are not limited to:

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

Specialties could include but are not limited to:

- GIS Product Suites

STREAM 3 - (I) IM/IT SERVICES

3.1 Data Conversion Specialist

Experience Levels

Level 1: <5 years of experience

Level 2: 5-<10 years of experience

Level 3: 10+ years of experience

Responsibilities could include but are not limited to:

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

Specialties could include but are not limited to:

-

3.2 Database Administrator

Experience Levels

Level 1: <5 years of experience

Level 2: 5-<10 years of experience

Level 3: 10+ years of experience

Responsibilities could include but are not limited to:

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

Specialties could include but are not limited to:

- BPWin
- ERWin
- IBM DB2
- IDMS
- Informix
- Ingres
- MS Access
- MS SQL
- Oracle
- Oracle CASE
- Oracle Financials
- Silverrun
- SQL Server
- SQL*DBA
- SQL*Forms
- SQL*Menu
- SQL*Net
- SQL*Plus
- SQL*Report
- Sybase
- Unisys DBII

3.3 Database Analyst

Experience Levels

Level 1: <5 years of experience

Level 2: 5-<10 years of experience

Level 3: 10+ years of experience

Responsibilities could include but are not limited to:

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

Specialties could include but are not limited to:

- | | | | |
|------------|---------------------|--------------|---------------|
| • BPWin | • MS Access | • SQL Server | • Sybase |
| • ERWin | • MS SQL | • SQL*DBA | • Unisys DBII |
| • IBM DB2 | • Oracle | • SQL*Forms | |
| • IDMS | • Oracle CASE | • SQL*Menu | |
| • Informix | • Oracle Financials | • SQL*Net | |
| • Ingres | • Silverrun | • SQL*Plus | |
| | | • SQL*Report | |

3.4 Database Modeller / IM Modeller

Experience Levels

Level 1: <5 years of experience

Level 2: 5-<10 years of experience

Level 3: 10+ years of experience

Responsibilities could include but are not limited to:

- The Data Architect has both strategic and tactical responsibility for developing and maintaining the Architecture and Data Models for corporate and project specific initiatives. This responsibility includes the identification of data most valuable to the department, the integration of this data, and the development of core relating data models. The resulting data models will be based on data architecture and modeling design principles and tenets.
- Design, develop and maintain Logical Data Models.
- Analyze proposed changes to databases from the context of the Logical Data Model.
- Provide technical expertise in the use and optimization of data modeling techniques to team members.
- Provide technical assistance, guidance and direction in terms of data analysis and modeling to team members.
- Provide assistance to project team and business users relating to data issues and data analysis concepts.
- Participate in the development of data modeling and metadata policies and procedures.
- Participate in data analysis as a result of new/updated requirements.
- Apply approved changes to logical data models.
- Comply with corporate data architectures, strategies and frameworks, including enterprise data warehouse activities.
- Analyze and evaluate alternative data architecture solutions to meet business problems/requirements to be incorporated into the corporate data architecture.
- Review corporate architecture strategies and directions, data requirements, and business information needs and devise data structures to support them.
- Improve modeling efficiency through recommendations on how to better utilize current metadata repositories.
- Comply with corporate repository metadata directions.
- Provide input to refinement of data architectures.
- Participate in data architecture refinement.
- Define access strategies.
- Construct, monitor and report on work plans and schedules.

Specialties could include but are not limited to:

- BPWin
- ERWin
- IBM DB2
- IDMS
- Informix
- Ingres
- MS Access
- MS SQL
- Oracle
- Oracle CASE
- Oracle Financials
- Silverrun
- SQL Server
- SQL*DBA
- SQL*Forms
- SQL*Menu
- SQL*Net
- SQL*Plus
- SQL*Report
- Sybase
- Unisys DBII

3.5 IM Architect

Experience Levels

- Level 1: <5 years of experience
- Level 2: 5-<10 years of experience
- Level 3: 10+ years of experience

Responsibilities could include but are not limited to:

- Analyze 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.

Specialties could include but are not limited to:

- BPWin
- ERWin
- IBM DB2
- IDMS
- Informix
- Ingres
- MS Access
- MS SQL
- Oracle
- Oracle CASE
- Oracle Financials
- Silverrun
- SQL Server
- SQL*DBA
- SQL*Forms
- SQL*Menu
- SQL*Net
- SQL*Plus
- SQL*Report
- Sybase
- Unisys DBII

3.6 Network Analyst

Experience Levels

- Level 1: <5 years of experience
- Level 2: 5-<10 years of experience
- Level 3: 10+ years of experience

Responsibilities could include but are not limited to:

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

Specialties could include but are not limited to:

-

3.7 Platform Analyst

Experience Levels

Level 1: <5 years of experience

Level 2: 5-<10 years of experience

Level 3: 10+ years of experience

Responsibilities could include but are not limited to:

- Develop and document detailed statement of requirements for the proposed platform.
- Analyze functional requirements to identify information, procedures and decision flows.
- Evaluate existing procedures and methods, identify and documents database content, structure, and application sub-systems, and develop data dictionary.
- Define and document interfaces of manual to automated operations within sub-systems, to external systems and between new and existing systems.
- Define input/output sources, including detailed plan for technical design phase, and obtain approval for system proposals.
- Design and document in detail all system components, interfaces and operational environment.
- Design data structures and files, sub-systems and modules, programs, batch, on line, and production monitoring procedures, testing strategy and systems.
- Document system design, concepts and facilities, present and obtain approval of detailed system designs.
- Produce operational systems including all forms, manuals, programs, data files and procedures.

Specialties could include but are not limited to:

-

3.8 Storage Architect

Experience Levels

Level 1: <5 years of experience

Level 2: 5-<10 years of experience

Level 3: 10+ years of experience

Responsibilities could include but are not limited to:

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

Specialties could include but are not limited to:

-

3.9 System Administrator

Experience Levels

Level 1: <5 years of experience

Level 2: 5-<10 years of experience

Level 3: 10+ years of experience

Responsibilities could include but are not limited to:

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

- Analyze system performance and recommend improvements.

Specialties could include but are not limited to:

-

3.10 Technical Architect

Experience Levels

Level 1: <5 years of experience
 Level 2: 5-<10 years of experience
 Level 3: 10+ years of experience

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.

Specialties could include but are not limited to:

-

3.11 Technology Architect

Experience Levels

Level 1: <5 years of experience
 Level 2: 5-<10 years of experience
 Level 3: 10+ years of experience

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.
- 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.

Specialties could include but are not limited to:

- | | |
|---------------|------------|
| • Hardware | • Software |
| • Host System | • Storage |
| • Software | • Network |

STREAM 4 - (B) BUSINESS SERVICES

4.1 Business Analyst

Experience Levels

Level 1: <5 years of experience

Level 2: 5-<10 years of experience

Level 3: 10+ years of experience

Responsibilities could include but are not limited to:

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

Specialties could include but are not limited to:

- BPWin
- Oracle CASE
- Rational Rose
- RUP

4.2 Business Architect

Experience Levels

Level 1: <5 years of experience

Level 2: 5-<10 years of experience

Level 3: 10+ years of experience, or 5+ years of experience with a recognized professional certification

Responsibilities could include but are not limited to:

- Develop policies and rules that allow an organization to carry out its mandate and functional responsibilities, and that govern the organization's actual and planned capabilities in terms of computers, data, information, human resources, communication facilities, software and management responsibilities.
- Develop the specifications for where, how and why the various organizational components fit together as they do, and how they support the organization's mandate.

Specialties could include but are not limited to:

- BPWin
- Oracle CASE
- Rational Rose
- RUP

4.3 Business Consultant

Experience Levels

Level 1: <5 years of experience

Level 2: 5-<10 years of experience

Level 3: 10+ years of experience, or 5+ years of experience with a recognized professional certification

Responsibilities could include but are not limited to:

- Analyze, evaluate, develop business processes (financial, operational, systems, etc.).
- Identify organizational and/or project business opportunities for improvement and streamlining of business processes.
- Identify and evaluate critical success parameters, factors and performance measurements.
- Assist other stakeholders in development and implementation of business improvement processes and programs.

Specialties could include but are not limited to:

-

4.4 Business Continuity/Disaster Recovery Specialist

Experience Levels

Level 1: <5 years of experience

Level 2: 5-<10 years of experience

Level 3: 10+ years of experience, or 5+ years of experience with a recognized professional certification

Responsibilities could include but are not limited to:

- Develop and implement business and technology continuity plans.
- Develop technology and business continuity and disruption recovery strategies.
- Develop crisis communication planning strategies.
- Identify past and potential impact resulting from disruptions.
- Develop techniques to identify and evaluate potential disruptions.
- Develop and implement backup, replication and redundancy strategies as required.
- Develop awareness, training, and communication programs with both internal staff and other stakeholders.
- Establish coordination activities with internal and external stakeholders and establish actual and potential dependencies.
- Develop and implement monitoring activities and performance management.

Specialties could include but are not limited to:

-

4.5 Business Process Re-engineering (BPR) Consultant

Experience Levels

Level 1: <5 years of experience

Level 2: 5-<10 years of experience

Level 3: 10+ years of experience, or 5+ years of experience with a recognized professional certification

Responsibilities could include but are not limited to:

- Review existing work processes and organizational structure.
- Analyze business functional requirements to identify information, procedures and decision flows.
- Identify candidate processes for re-design; prototype potential solutions, provide trade-off information and suggest a recommended course of action. Identify the modifications to the automated processes.
- Provide expert advice in defining new requirements and opportunities for applying efficient and effective solutions; identify and provide preliminary costs of potential options.
- Provide expert advice in developing and integrating process and information models between processes to eliminate information and process redundancies.
- Identify and recommend new processes and organizational structures.
- Provide expert advice on and/or assist in implementing new processes and organizational changes.
- Document workflows.
- Use business, workflow and organizational modeling software tools.

Specialties could include but are not limited to:

-

4.6 Business System Analyst

Experience Levels

Level 1: <5 years of experience

Level 2: 5-10 years of experience

Level 3: 10+ years of experience

Responsibilities could include but are not limited to:

- Develop and document a detailed statement of requirements for the proposed alternative recommended in the preliminary analysis report.
- Perform business analyses of functional requirements to identify information, procedures, and decision flows.

- Evaluate existing procedures and methods, identify and documents items such as database content, structure, application subsystems, and develop data dictionary.
- Define, document, and design interfaces of manual to automated operations within application subsystems, to external systems, and between new and existing systems.
- Identify candidate business processes for re-design, prototype potential solutions, provide trade-off information and suggest a recommended course of action. Identify the modifications to the automated processes.
- Support and use the selected departmental methodologies.

Specialties could include but are not limited to:

- BPWin
- Oracle CASE
- Rational Rose
- RUP

4.7 Business Transformation Architect

Experience Levels

Level 1: <5 years of experience

Level 2: 5-<10 years of experience

Level 3: 10+ years of experience, or 5+ years of experience with a recognized professional certification

Responsibilities could include but are not limited to:

- Analysis and development of business success “critical success factors”.
- Analysis and development of architecture requirements design, process development, process mapping and training.
- Responsible for leading other functional staff to define business strategy and processes in support of transformation and change management activities.
- Participate in change impact analysis and change management activities.
- Participate in organizational realignment (job re-design organizational re-structuring).
- Coordinate development of training and coordination with other stakeholders.
- Create presentations and present to various stakeholders, and facilitate meetings and discussions.

Specialties could include but are not limited to:

-

4.8 Call Centre Consultant

Experience Levels

Level 1:<5 years of experience

Level 2:5-<10 years of experience

Level 3:10+ years of experience

Responsibilities could include but are not limited to:

- Provide expert advice on and/or developing and implementing computer enabled call centers that permit service agents to efficiently and effectively respond to client service requests received by telephone and other electronic media.
- Provide expert advice on and/or developing Interactive Voice Response (IVR) Application systems that permit callers to obtain information or enter transactions using the telephone and keypad.
- Provide expert advice on and/or developing service request management application systems.

Specialties could include but are not limited to:

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4.9 *Courseware Developer

* To be used for IT courseware requirements only. Non IT courseware requirements must be processed through the Learning Services Supply Arrangement E60ZH-070003

Experience Levels

Level 1:<5 years of experience

Level 2:5-<10years of experience

Level 3:10+ years of experience

Responsibilities could include but are not limited to:

- Perform needs assessment/analysis for training purposes.
- Plan and monitor training projects.
- Perform job, task, and/or content analysis.
- Write criterion-referenced, performance-based objectives.
- Recommend instructional media and strategies.
- Develop performance measurement standards.
- Develop training materials.
- Prepare end-users for implementation of courseware materials.
- Communicate effectively by visual, oral, and written form with individuals, small group, and in front of large audiences.

Specialties could include but are not limited to:

-

4.10 Help Desk Specialist

Experience Levels

Level 1: <5 years of experience

Level 2: 5-<10 years of experience

Level 3: 10+ years of experience

Responsibilities could include but are not limited to:

- Perform a variety of network problem analysis and monitoring tasks, monitor network management systems and respond appropriately to user requests and problems
- Perform initial problem analysis and triage problem to other appropriate staff when appropriate.
- Maintain liaison with network users and technical staff to communicate the status of problem resolution to network users; log and track requests for assistance.
- Develop, implement, and/or participate in the preparation of procedure manuals and documentation for help desk use; conduct periodic user satisfaction surveys and track user problem trends; make recommendations for improvements to the network systems and create reports based on information provided from user surveys and trends.
- Develop, implement, and/or participate in the distribution of network related information to users to include information such as help desk procedures and network handbooks.
- Participate in the development of a comprehensive training plan for help desk procedures; assist in training personnel providing backup coverage.
- Participate in on-site installations of network systems for users.
- Perform other related duties incidental to the work described herein.

Specialties could include but are not limited to:

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4.11 * Instructor, IT

* To be used for IT instructor only. Non IT instructor requirements must be processed through the Learning Services Supply Arrangement E60ZH-070003

Experience Levels

Level 1:<5 years of experience

Level 2:5-<10 years of experience

Level 3:10+ years of experience

Responsibilities could include but are not limited to:

- Assess the relevant characteristics of a target audience.
- Prepare end-users for implementation of courseware materials.
- Conduct training courses.
- Communicate effectively by visual, oral, and written form with individuals, small group, and in front of large audiences.

Specialties could include but are not limited to:

-

4.12 Network Support Specialist

Experience Levels

Level 1:<5 years of experience

Level 2:5-<10 years of experience

Level 3:10+ years of experience

Responsibilities could include but are not limited to:

- Coordinate installation, operation, maintenance, resolution of hardware and software problems, monitoring of traffic, capacity planning, system backup and user training for a Local Area Network.
- Evaluate, test and recommend new data communication hardware and software.
- Maintain interface with vendor representatives and other computing resources to resolve hardware and software problems.
- Inform new users of the appropriate hardware and software specifications for access to the network.
- Install or coordinate installation of network hardware, software for use with personal computers and mainframe/personal computer interaction, and network upgrades according to vendor instructions.
- Configure equipment with assistance from vendor or other computing resources.
- Prepare and maintain procedure manuals and documentation for internal use.
- Maintain a reference library to include reference manuals and user guides.
- Maintain accurate records and logs of users, equipment serial numbers, service records, maintenance agreements, warranties, wiring schemes and network problems and solutions.
- Develop, implement, participate, and test a network disaster recovery plan.
- Resolve all connectivity and internal technical problems.
- Assist in training users to use the network and related software.

Specialties could include but are not limited to:

-

4.13 Operations Support Specialist

Experience Levels

Level 1:<5 years of experience

Level 2:5-<10 years of experience

Level 3:10+ years of experience

Responsibilities could include but are not limited to:

- Provide systems administration and systems operations support, including setting up user access, user profiles, back up and recovery, day-to-day computer systems operations.
- Perform software upgrades, and apply patches.
- Provide customer interface to ensure requested changes are implemented.
- Monitor computer workload trends and make adjustments to ensure optimum utilization of computer resources.

Specialties could include but are not limited to:

-

4.14 Technical Writer

Experience Levels

Level 1:<5 years of experience

Level 2:5-<10 years of experience

Level 3:10+ years of experience

Responsibilities could include but are not limited to:

- Document help text, user manuals, technical documentation, web page content, etc.
- Review documentation standards and the existing project documentation.
- Determine documentation requirements and makes plans for meeting them.

- Gather information concerning the features and functions provided by the developers.
- Assess the audience for the documents/manuals which are required and prepare a statement of purpose and scope for each.
- Develop a table of content for each document/manual and write or edit the required content.
- Investigate the accuracy of the information collected by making direct use of the material being documented.
- Prepare or coordinate the preparation of any required illustrations and diagrams.
- Design the layout of the documents/manuals.
- Use word-processing, desk-top publishing and graphics software packages to produce final camera-ready copy.

Specialties could include but are not limited to:

- RoboHelp • • • •

STREAM 5 - (P) PROJECT MANAGEMENT SERVICES

5.1 Change Management Consultant

Experience Levels

Level 1: <5 years of experience

Level 2: 5-<10 years of experience

Level 3: 10+ years of experience, or 5+ years of experience with a recognized professional certification

Responsibilities could include but are not limited to:

- Analysis and development of business “critical success factors”.
- Analysis and development of architecture requirements design, process development, process mapping and training.
- Responsible for leading other functional staff to define business strategy and processes in support of transformation and change management activities.
- Participate in change impact analysis and change management activities.
- Participate in organizational realignment (job re-design organizational re-structuring).
- Coordinate development of training and coordination with other stakeholders.
- Create presentations and present to various stakeholders, and facilitate meetings and discussions.

Specialties could include but are not limited to:

-

5.2 Enterprise Architect

Experience Levels

Level 1: <5 years of experience

Level 2: 5-<10 years of experience

Level 3: 10+ years of experience, or 5+ years of experience with a recognized professional certification

Responsibilities could include but are not limited to:

- Evaluate the enterprise's business/ICT architecture, determine its consistency and integration with the organization's business/ICT strategies, assess the degree of its alignment with Treasury Board CIO Business Transformation Enablement Program (BTEP) and Federated Architecture Program (FAP) and recommend changes to the business/ICT architecture to improve its alignment with these external factors.
- Identify future business/ICT requirements against the current enterprise architecture, perform gaps analyses, develop Requirements for Technology Architectures (RTA), and prepare migration strategies.
- Assess the feasibility of migrating from the current state to the target business architecture and enabling technologies and Identify the risks associated with migrating to the target business architecture and technologies and make recommendations for risk mitigation.
- Identify business and technology trends that create opportunities for business improvement, advise business and ICT Senior Executives on ICT trends and emerging technologies and the impact on the organization's and government ICT architectures and business strategies, model "What if" scenarios and recommend appropriate changes to the existing architecture and ICT infrastructure, and recommend alternative solutions, methodologies and strategies.
- Produce an architectural evolution plan, recommend prioritization of architecture evolution initiatives, and develop and/or implement an architecture evolution plan.
- Manage the development and implementation of an architectural improvement plan.
- Coach, mentor and train the organization to perform any of the above.

Specialties could include but are not limited to:

-

5.3 HR Consultant

Experience Levels

Level 1: <5 years of experience

Level 2: 5-<10 years of experience

Level 3: 10+ years of experience

Responsibilities could include but are not limited to:

- Develop guiding HR practices and principles.
- Conduct Recruitment and selection.
- Conduct Performance Management and Evaluation.
- Develop Training and Development Programs.
- Reward and Recognition Programs.
- Coordinate Learning and Development initiatives, including identification of training needs, implementation of training plans and learning and development strategies.
- Undertake research and provide recommendations on HR initiatives.
- Consult, influence, communicate, conduct team and workshop facilitation.

Specialties could include but are not limited to:

-

5.4 Organizational Development Consultant

Experience Levels

Level 1: <5 years of experience

Level 2: 5-<10 years of experience

Level 3: 10+ years of experience, or 5+ years of experience with a recognized professional certification

Responsibilities could include but are not limited to:

- Enable, facilitate, and mediate the evolution of the various organizational or departmental structures toward the organization's or department's desired outcome or structure.
- Assist with organizational needs assessment and strategic planning to ensure development of human capital to meet business objectives and goals.
- Provide advice, support and consultation to senior staff, business unit requests, and front line management to achieve strategic initiatives and goals.
- Research, design, implement and maintain employee development programs including leadership development and other management development programs.
- Develop and implement processes to measure the effectiveness of development and learning efforts to ensure performance improvements are focused on measurable and attainable results.
- Serve as an expert resource by collaborating with HR and business unit executives to ensure clear standards and metrics linked to talent reviews and employee development plans.
- Develop strategic partnerships with other internal project managers to identify and consult on change management initiatives to support strategic projects requiring organizational culture change.
- Proactively address and respond to Organizational Development issues by bringing key stakeholders together to assess root causes and performance gaps and recommend appropriate interventions.
- Practice continuous improvement processes and procedures, eliminating non-value added activities.
- Conduct focus groups and/or process improvement sessions as needed.
- Implement and manage the organization's training to ensure cost effective employee development activities that support the organization's strategic initiatives.
- Manage and facilitate organizational initiatives and projects as requested.

Specialties could include but are not limited to:

-

5.5 Project Executive

Experience Levels

Level 1: <5 years of experience

Level 2: 5-<10 years of experience

Level 3: 10+ years of experience, or 5+ years of experience with a recognized professional certification

Responsibilities could include but are not limited to:

- Manage several Project Managers, each responsible for an element of the project and its associated project team.
- Define and document project objectives, determine budget requirements.

- Meet with other organizational executives to ensure all organizational (internal and external) stakeholders are committed and moving forward on project and organizational goals.
- Resolve issues related to the project.
- Prepare plans, charts, tables and diagrams to assist in analyzing or displaying problems; work with a variety of project management tools.
- Project sign-off.

Specialties could include but are not limited to:

-

5.6 Project Administrator

Experience Levels

Level 1: <5 years of experience

Level 2: 5-<10 years of experience

Level 3: 10+ years of experience, or 5+ years of experience with a recognized professional certification

Responsibilities could include but are not limited to:

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

Specialties could include but are not limited to:

- MS Project

5.7 Project Coordinator

Experience Levels

Level 1: <5 years of experience

Level 2: 5-<10 years of experience

Level 3: 10+ years of experience, or 5+ years of experience with a recognized professional certification

Responsibilities could include but are not limited to:

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

Specialties could include but are not limited to:

- MS Project
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-
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5.8 Project Leader

Experience Levels

Level 1: <5 years of experience

Level 2: 5-<10 years of experience

Level 3: 10+ years of experience, or 5+ years of experience with a recognized professional certification

Responsibilities could include but are not limited to:

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

Specialties could include but are not limited to:

- MS Project

5.9 Project Manager

Experience Levels

Level 1: <5 years of experience

Level 2: 5-<10 years of experience

Level 3: 10+ years of experience, or 5+ years of experience with a recognized professional certification

Responsibilities could include but are not limited to:

- Manage several Project Managers, each responsible for an element of the project and its associated project team.
- Manage the project during the development, implementation and operations startup by ensuring that resources are made available and that the project is developed and is fully operational within previously agreed time, cost and performance parameters.
- Formulate statements of problems; establishes procedures for the development and implementation of significant, new or modified project elements to solve these problems, and obtains approval thereof.
- Define and document the objectives for the project; determine budgetary requirements, the composition, roles and responsibilities and terms of reference for the project team.
- Report progress of the project on an ongoing basis and at scheduled points in the life cycle.
- Meets in conference with stakeholders and other project managers and states problems in a form capable of being solved.
- Prepare plans, charts, tables and diagrams to assist in analyzing or displaying problems; work with a variety of project management tools.
- Project sign-off.

Specialties could include but are not limited to:

-

5.10 Project Scheduler

Experience Levels

Level 1: <5 years of experience

Level 2: 5-<10 years of experience

Level 3: 10+ years of experience, or 5+ years of experience with a recognized professional certification

Responsibilities could include but are not limited to:

- Develop and support project schedules.

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

Specialties could include but are not limited to:

- MS Project

5.11 Quality Assurance Specialist/Analyst

Experience Levels

Level 1: <5 years of experience

Level 2: 5-<10 years of experience

Level 3: 10+ years of experience

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.

Specialties could include but are not limited to:

-

5.12 Risk Management Specialist

Experience Levels

Level 1: <5 years of experience

Level 2: 5-<10 years of experience

Level 3: 10+ years of experience, or 5+ years of experience with a recognized professional certification

Responsibilities could include but are not limited to:

- Conduct risk assessments.
- Identify project risks and overall project risks.
- Recommend alternative solutions, methodologies and strategies for risk mitigation and management.
- Produce risk management plans.
- Conduct risk assessments for troubled projects to quickly assess associated risks and recommend courses of action to minimize inherent risks.
- Assist in prioritization and assignment of risks.
- Assist in the development and/or implementation of Risk Management Plans.
- Manage the implementation of Risk Management Plans to identify, analyze, plan, track and control project risks on a continuous basis throughout the project life cycle.
- Coach, mentor and train project teams in risk mitigation techniques.

Specialties could include but are not limited to:

-

STREAM 6 - (C) CYBER PROTECTION SERVICES / IT SECURITY SERVICES

6.1 Strategic IT Security Planning and Protection Consultant (formerly CPISA WS1)

Experience Levels

Level 1: <5 years of experience

Level 2: 5-<10 years of experience

Level 3: 10+ years of experience

Responsibilities could include but are not limited to:

- Review, analyze, and/or apply the IT Security Policies, Procedures and Guidelines of International government, Federal, Provincial or Territorial government.
- Review, analyze, and apply the best practices, national or international computer law and ethics, IT Security architecture, and IT Security Risk Management Methodology
- Develop vision papers delineating the way ahead to ensure that IT Security and cyber protection are business enablers
- Conduct business function analysis and business impact assessments
- Brief senior managers
- Provide strategic assessments on technology trends and emerging technologies
- Provide IT Security strategic planning and advice.
- Conduct feasibility studies, technology assessments and cost-benefit analyses, and propose system implementation plans for IT Security
- Develop advanced R&D policy/strategy
- Collect, collate and prioritize client IT Security and Information Infrastructure Protection requirements
- Evaluate and assist in the selection of enterprise-wide technology tools
- Review and prioritize IT Security and Information Infrastructure Protection programs
- Develop strategic IT Security architecture vision, strategies and designs using the Business Transformation Enablement Program (BTEP) methodology and the Government Strategic Reference Model (GSRM)
- Develop IT Security programs and service designs using the following GSRM models: Program Logic Model, Program and Service Alignment Model, Service Integration and Accountability Model, State Transition Model, Information Model and Performance Model
- Develop and deliver training material relevant to the resource category
- Review and prioritize IT Security and Information Infrastructure Protection programs

Specialties could include but are not limited to:

-

6.2 IT Security Methodology, Policy and Procedures Analyst

Experience Levels

Level 1: <5 years of experience

Level 2: 5-<10 years of experience

Level 3: 10+ years of experience

Responsibilities could include but are not limited to:

- Review, analyze, and/or apply Federal, Provincial or Territorial Government IT Security methodologies, programs, policies, procedures, standards, guidelines, and IT Security Risk Management methodologies.
- Develop IT Security standards, procedures and guidelines pursuant to the requirements of The National Security Policy, Policy on Government Security, supporting operational standards (e.g., MITS), departmental/agency security policy, and other relevant standards, procedures and guidelines

- Develop IT Security policy in the areas of IT security and assurance, standard Certification & Accreditation frameworks for IT systems, information infrastructure protection, product evaluation, privacy, Business Continuity Planning, contingency planning and Disaster Response Planning, Research & Development
- Develop IT Security risk assessment methodologies for application to Government of Canada institutions
- Develop and deliver training material relevant to the resource category

Specialties could include but are not limited to:

-

6.3 IT Security TRA and C&A Analyst

Experience Levels

Level 1: <5 years of experience

Level 2: 5-<10 years of experience

Level 3: 10+ years of experience

Responsibilities could include but are not limited to:

- Review, analyze, and/or apply Federal, Provincial or Territorial IT Security policies, System IT Security Certification & Accreditation processes, IT Security products, safeguards and best practices, and the IT Security risk mitigation strategies
- Identify threats to, and vulnerabilities of operating systems (such as MS, Unix, Linux, and Novell), and wireless architectures
- Identify personnel, technical, physical, and procedural threats to and vulnerabilities of Federal, Provincial or Territorial IT systems
- Develop reports such as: Data security analysis, Concepts of operation, Statements of Sensitivity (SoSs), Threat assessments, Privacy Impact Assessments (PIAs), Non-technical Vulnerability Assessments, Risk assessments, IT Security threat, vulnerability and/or risk briefings
- Conduct Certification activities such as: Develop Security Certification Plans, Verify that security safeguards meet the applicable policies and standards, Validate the security requirements by mapping the system-specific security policy to the functional security requirements, and mapping the security requirements through the various stages of design documents, Verify that security safeguards have been implemented correctly and that assurance requirements have been met. This includes confirming that the system has been properly configured, and establishing that the safeguards meet applicable standards, Conduct security testing and evaluation (ST&E) to determine if the technical safeguards are functioning correctly, Assess the residual risk provided by the risk assessment to determine if it meets an acceptable level of risk
- Conduct Accreditation activities such as: Review of the certification results in the design review documentation by the Accreditation Authority to ensure that the system will operate with an acceptable level of risk and that it will comply with the departmental and system security policies and standards and identify the conditions under which a system is to operate (for approval purposes). This may include the following types of approvals:
- Developmental approval by both the Operational and the Accreditation Authorities to proceed to the next stage in an IT system's life cycle development if sensitive information is to be handled by the system during development
- Operational written approval for the implemented IT system to operate and process sensitive information if the risk of operating the system is deemed acceptable, and if the system is in compliance with applicable security policies and standards
- Interim approval - a temporary written approval to process sensitive information under a set of extenuating circumstances where the risk is not yet acceptable, but there is an operational necessity for the system under development
- Develop and deliver training material relevant to the resource category

Specialties could include but are not limited to:

-

6.4 IT Security Product Evaluation Specialist

Experience Levels

Level 1: <5 years of experience

Level 2: 5-<10 years of experience

Level 3: 10+ years of experience

Responsibilities could include but are not limited to:

- Review, analyze, and/ or apply the:
 - Canadian Common Criteria Evaluation and Certification Scheme, or, any evaluation scheme recognized under the Common Criteria Recognition Arrangement
 - Product evaluation methodologies, standards and best practices
 - IT software and hardware security products
 - Operating Systems such as MS, Unix, Linux, and Novell
 - IT Security architectures including wireless
 - TCP/IP
 - Cryptographic Algorithms
 - FIPS 140 evaluation
 - Product evaluation policies, procedures and guidelines
 - Product assessment methodologies, evaluations and reports
- Complete tasks directly supporting the departmental IT Security and Cyber Protection Program
- Develop and deliver training material relevant to the resource category

Specialties could include but are not limited to:

- TCP/IP
- FIPS 140

6.5 PKI Specialist

Experience Levels

Level 1: <5 years of experience

Level 2: 5-<10 years of experience

Level 3: 10+ years of experience, or 5+ years of experience with one of the following certifications: SNIA Certified Professional (SCP) or SNIA Certified Systems Engineer (SCSE) or SNIA Certified Architect (SCA) or SNIA Certified Storage Networking Expert (SCSNE)

Responsibilities could include but are not limited to:

- Develop PKI related policies, standards, guidelines and procedures.
- Review existing PKI policies, standards, guidelines and procedures and provide advice as to their appropriateness and effectiveness.
- Review and analyze the application of PKI architecture, Digital signatures/certificates, PKI products, Internet security protocols, directory standards, certificate protocols, and Certification Authority (CA).
- Interoperability and governance studies
- Conduct compliance audits of PKI related concerns, including operations, application systems and infrastructure.
- Conduct PKI related security threat and risk assessments of IT facilities, application systems and communications.
- Conduct PKI related reviews of backup and recovery plans.
- Investigate PKI related incidents and report cause and related weaknesses and recommend remedies.
- Develop PKI Certificate Policy, Practice Statement development, and Policy compliance inspections and audits.
- Design the PKI related framework and implement the PKI infrastructure required to protect assets and to support application systems.
- Provide advice on PKI aspects of application systems under development.
- Complete tasks directly supporting the departmental IT Security and Cyber Protection Program.
- Develop and deliver PKI awareness and training programs.

Specialties could include but are not limited to:

- SSL
- S-MIME
- X.500 Directory Standards
- TCP/IP
- S-HTTP
- IPSec
- X.509 Certificate Protocols
- UDP
- HTTP
- SSH
- DNS
- SMTP

6.6 IT Security Engineer

Experience Levels

Level 1: <5 years of experience

Level 2: 5-<10 years of experience

Level 3: 10+ years of experience

Responsibilities could include but are not limited to:

- Review, analyze and/or apply:
 - Directory Standards such as X.400, X.500, and SMTP
 - Operating Systems such as MS, Unix, Linux, and Novell
 - Networking Protocols such as HTTP, FTP, and Telnet
 - Secure IT architectures fundamentals, standards, communications and security protocols such as IPSec, IPv6, SSL, and SSH
 - IT Security protocols at all layers of the Open Systems Interconnection (OSI) and Transmission Control Protocol/Internet Protocol (TCP/IP) stacks
 - Domain Name Services (DNS) and Network Time Protocols (NTP)
 - Network routers, multiplexers and switches
 - Application, host and/or Network hardening and security best practices such as shell scripting, service identification, and access control
 - Intrusion detection/prevention systems, malicious code defence, file integrity, Enterprise Security Management and/or firewalls
 - Wireless technology
 - Cryptographic Algorithms
- Identify the technical threats to, and vulnerabilities of, networks
- Manage the IT Security configuration
- Analyze IT Security tools and techniques
- Analyze the security data and provide advisories and reports
- Analyze IT Security statistics
- Prepare technical reports such as IT Security Solutions option analysis and implementation plans
- Provide Independent Verification and Validation (IV&V) support to IT Security related projects including:
 - IT Security audits, including applicable reports, presentations and other documentation,
 - Review of contingency plans, Business Continuity Plans and Disaster Response Plans
 - Design/development and conduct IT Security protocols tests and exercises
 - Project oversight
- Develop and deliver training material relevant to the resource category

Specialties could include but are not limited to:

- SSL
- S-MIME
- X.400/X.500 Directory Standards
- TCP/IP
- HTTP
- IPSec
- X.509 Certificate Protocols
- OSI
- FTP
- SSH
- DNS
- SMTP
- Telnet
- NTP

6.7 IT Security Design Specialist

Experience Levels

Level 1: <5 years of experience

Level 2: 5-<10 years of experience

Level 3: 10+ years of experience

Responsibilities could include but are not limited to:

- Review, analyze, and/or apply: Architectural methods, frameworks, and models such as TOGAF, US government FEAP, Canadian government BTEP and GSRM, Zachman, UMM
- Review, analyze, and/or apply a broad range of security technologies including multiple types of systems and applications architectures, and multiple hardware and software platforms, including:
 - Directory Standards such as X.400, X.500, and SMTP
 - Operating Systems such as MS, Unix, Linux, and Novell
 - Networking Protocols (e.g., HTTP, FTP, Telnet)
 - Network routers, multiplexers and switches
 - Domain Name Services (DNS) and Network Time Protocols (NTP)
- Review, analyze, and/or apply Secure IT architectures, standards, communications, and security protocols such as IPSec, SSL, SSH, SMIME, HTTPS
- Review, analyze, and/or apply IT Security protocols at all layers of the Open Systems Interconnection (OSI) and Transmission Control Protocol/Internet Protocol (TCP/IP) stacks
- Review, analyze, and/or apply The significance and implications of market and technology trends in order to apply them within architecture roadmaps and solution designs. (examples: web services security, incident management, identity management)
- Review, analyze, and/or apply Best practices and standards related to the concept of network zoning and defence in-depth principles
- Review, analyze, and/or apply IT Security protocols at all layers of the Open Systems Interconnection (OSI) and Transmission Control Protocol/Internet Protocol (TCP/IP) stacks
- Analyze IT Security statistics, tools and techniques
- Analyze security data and provide advisories and reports
- Prepare technical reports such as requirement analysis, options analysis, technical architecture documents, mathematical risk modeling
- Brief senior managers
- Security architecture design and engineering support
- Conduct data security designation/classification studies
- Prepare tailored IT Security alerts and advisories from open and closed sources Complete tasks directly supporting the departmental IT Security and Cyber Protection Program
- Develop and deliver training material relevant to the resource category

Specialties could include but are not limited to:

- | | | | |
|----------|----------|-----------------------|----------|
| ● SSL | ● S-MIME | ● X.400/X.500 | ● TCP/IP |
| ● HTTP | ● IPSec | Directory Standards | ● OSI |
| ● HTTPS | ● SSH | ● X.509 | ● DNS |
| ● FTP | | Certificate Protocols | ● SMTP |
| ● Telnet | | | ● NTP |

6.8 Network Security Analyst

Experience Levels

Level 1: <5 years of experience

Level 2: 5-<10 years of experience

Level 3: 10+ years of experience

Responsibilities could include but are not limited to:

- Review, analyze, and/or apply:
 - Internet security protocols such as SSL, S-HTTP, S-MIME, IPsec, SSH
 - TCP/IP, UDP, DNS, SMTP, SNMP
 - Approved GC Cryptographic Algorithms
 - Directory Standards such as X.400, X.500, and SMTP
 - Networking Protocols (e.g., HTTP, FTP, Telnet)
 - Network hardening (for example: shell scripting, service identification)
 - Technical IT Security safeguards
 - IT Security tools and techniques
 - Operating Systems such as MS, Unix, Linux, and Novell
 - Intrusion detection systems and firewalls
 - Network routers, multiplexers and switches
 - Wireless technology
- Analyze security data and provide advisories and reports
- Conduct impact analysis for new software implementations, major configuration changes and patch management
- Develop proof-of-concept models and trials for IT Security
- Design/develop IT Security protocols
- Identify and analyze technical threats to, and vulnerabilities of, networks
- Analyze IT Security tools and techniques
- Complete tasks related to authorization and authentication in physical and logical environments
- Prepare tailored IT Security alerts and advisories from open and closed sources
- Complete tasks directly supporting the departmental IT Security and Cyber Protection Program
- Develop and deliver training material relevant to the resource category

Specialties could include but are not limited to:

- | | | | |
|----------|----------|---------------------|----------|
| ● SSL, | ● S-MIME | ● X.400/X.500 | ● TCP/IP |
| ● S-HTTP | ● IPsec | Directory Standards | ● UDP |
| ● HTTP | | ● X.509 Certificate | ● DNS |
| ● FTP | | Protocols | ● SMTP |
| ● Telnet | | | ● SNTF |

6.9 IT Security Systems Operator

Experience Levels

Level 1:<5 years of experience

Level 2:5-<10 years of experience

Level 3:10+ years of experience

Responsibilities could include but are not limited to:

- Review, analyze and/or apply:
 - Networking Protocols (HTTP, FTP, Telnet)
 - Internet security protocols (for example: SSL, S-HTTP, S-MIME, IPsec, SSH)
 - TCP/IP, UDP, DNS, SMTP
 - Directory Standards such as X.400, X.500, and SMTP
 - Network routers, multiplexers and switches
 - Network hardening (for example: shell scripting, service identification)
 - Wireless technology
 - Technical threats to, and vulnerabilities of, networks

- Technical IT Security safeguards
- IT software and hardware security products
- Configure operating systems such as MS, Unix, Linux and Novell
- Configure IT Security management
- Configure intrusion detection systems, firewalls and content checkers, extracting and analyzing reports and logs, and responding to security incidents
- Configure/update virus scanners
- Complete tasks directly supporting the departmental IT Security and Cyber Protection Program
- Develop and deliver training material relevant to the resource category

Specialties could include but are not limited to:

- | | | | |
|----------|----------|---------------------|----------|
| ● SSL, | ● S-MIME | ● X.400/X.500 | ● TCP/IP |
| ● HTTP | ● IPsec | Directory Standards | ● UDP |
| ● S-HTTP | | ● X.509 | ● DNS |
| ● FTP | | Certificate | ● SMTP |
| ● Telnet | | Protocols | ● SNTP |

6.10 IT Security Installation Specialist

Experience Levels

Level 1: <5 years of experience

Level 2: 5-<10 years of experience

Level 3: 10+ years of experience

Responsibilities could include but are not limited to:

- Review, analyze, and/or apply:
 - MITS and TBITS section 6.9 (structured wiring)
 - Networking Protocols (HTTP, FTP, Telnet)
 - Internet security protocols (for example: SSL, S-HTTP, S-MIME, IPsec, SSH)
 - TCP/IP
 - Secure integration of PC, router and hub technology
- Identify and analyze threats to, and vulnerabilities of, IT systems and IT Security safeguards
- Install, configure, integrate, policy fine-tune, operate, monitor performance, and detect faults in the system for:
 - Host and network intrusion detection and prevention systems
 - Network and computer forensics systems
 - Firewalls, VPNs and network devices
 - Enterprise network vulnerability tools
 - Malicious code, anti-spam and content management tools
 - File integrity tools
 - Remote management utilities
 - Enterprise Security Management (ESM)/Security Information Management (SIM) systems
 - Data preservation and archiving utilities
 - Threat agents analysis tools and other emerging technologies including privacy enhancement, predictive analysis, VoIP, data visualization and fusion, wireless security devices, PBX and telephony firewall
- Install operating systems such as MS, Unix, Linux, and Novell
- Install intrusion detection systems, firewalls and content checkers
- Install and integrate supporting access control technology, such as CCTV, card access readers, electronic access control systems
- Completed tasks directly supporting the departmental IT Security and Cyber Protection Program
- Develop and deliver training material relevant to the resource category

Specialties could include but are not limited to:

- SSL,
- HTTP
- S-HTTP
- FTP
- Telnet
- S-MIME
- IPSec
- SSH
- X.400/X.500 Directory Standards
- X.509 Certificate Protocols
- TCP/IP
- UDP
- DNS
- SMTP
- SNMP

6.11 IT Security VA Specialist

Experience Levels

Level 1:<5 years of experience

Level 2:5-<10 years of experience

Level 3:10+ years of experience

Responsibilities could include but are not limited to:

- Review, analyze, and/or apply:
 - Threat agents analysis tools and other emerging technologies including privacy enhancement, predictive analysis, VoIP, data visualization and fusion, wireless security devices, PBX and telephony firewall
 - War dialers, password crackers
 - Public Domain IT vulnerability advisory services
 - Network scanners and vulnerability analysis tools such as SATAN, ISS, Portscan & NMap
 - Networking Protocols (HTTP, FTP, Telnet)
 - Internet security protocols such as SSL, S-HTTP, S-MIME, IPSec, SSH, TCP/IP, UDP, DNS, SMTP, SNMP
 - Wireless Security
 - Intrusion detection systems, firewalls and content checkers
 - Host and network intrusion detection and prevention systems - Anti-virus management
- Identify threats to, and technical vulnerabilities of, networks
- Conduct on-site reviews and analysis of system security logs
- Collect, collate, analyze and disseminate public domain information related to networked computer threats and vulnerabilities, security incidents and incident responses
- Prepare and/or deliver IT Security threat, vulnerability and/or risk briefings
- Completed tasks directly supporting the departmental IT Security and Cyber Protection Program
- Develop and deliver training material relevant to the resource category

Specialties could include but are not limited to:

- SSL,
- HTTP
- S-HTTP
- FTP
- Telnet
- S-MIME
- IPSec
- X.400/X.500 Directory Standards
- X.509 Certificate Protocols
- TCP/IP
- UDP
- DNS
- SMTP
- SNMP

6.12 Incident Management Specialist

Experience Levels

Level 1:<5 years of experience

Level 2:5-<10 years of experience

Level 3:10+ years of experience

Responsibilities could include but are not limited to:

- Review, analyze, and/or apply:
 - Network scanners and vulnerability analysis tools such as SATAN, ISS, Portscan & NMap
 - Reporting and resolution procedures for IT Security incidents (for example DOS attacks) and International IT Security incident advisory services
 - Networking Protocols such as HTTP, FTP, Telnet

- Internet security protocols such as SSL, S-HTTP, S-MIME, IPSec, SSH
- TCP/IP, UDP, DNS, SMTP, SNMP
- Intrusion detection systems, firewalls, content checkers and antivirus software
- Network infrastructure components, such as multiplexers, routers/hubs, switches
- Provide incident analysis support, including:
 - Response mechanisms
 - Co-ordination of all prevention and response plans
 - Emergency Operations Centre (EOC) activities
 - Co-ordination with the national Integrated Threat Assessment Centre and Government Operations Centre
 - Participation in the Integrated National Security Framework and National Cyber Security Strategy
- Collect, collate, analyze and disseminate public domain information related to networked computer threats and vulnerabilities, security incidents and incident responses
- Conduct on-site reviews and analysis of system security logs
- Produce system activity reports, logs and incident analysis
- Assist in managing and running an incident response centre
- Complete tasks directly supporting the departmental IT Security and Cyber Protection Program
- Develop and deliver training material relevant to the resource category

Specialties could include but are not limited to:

- | | | | |
|----------|----------|-----------------------|----------|
| ● SSL, | ● S-MIME | ● X.400/X.500 | ● TCP/IP |
| ● HTTP | ● IPSec | Directory Standards | ● UDP |
| ● S-HTTP | | ● X.509 | ● DNS |
| ● FTP | | Certificate Protocols | ● SMTP |
| ● Telnet | | | ● SNTP |

6.13 Physical IT Security Specialist

Experience Levels

- Level 1: <5 years of experience
- Level 2: 5-<10 years of experience
- Level 3: 10+ years of experience

Responsibilities could include but are not limited to:

- Review, analyze, and/or apply risk management methodologies and GC, Provincial or Territorial IT Security Policies, Procedures, Standards, Guidelines.
- Conduct safeguard analysis and implementation for the physical protection of personnel and Information System (IS) assets
- Identify and analyze physical threats to, and vulnerabilities of networks
- Conduct activities related to authorization and authentication in physical and logical environments
- Complete tasks directly supporting the departmental IT Security and Cyber Protection Program
- Develop and deliver training material relevant to the resource category

Specialties could include but are not limited to:

6.14 IT Security R&D Specialist

Experience Levels

- Level 1: <5 years of experience
- Level 2: 5-<10 years of experience
- Level 3: 10+ years of experience

Responsibilities could include but are not limited to:

- Review, analyze, and/or apply:

- Canadian universities and industrial IT Security R and D capabilities
- Directory Standards such as X.400, X.500, and SMTP
- Networking Protocols such as HTTP, FTP, Telnet
- Internet security protocols such as SSL, S-HTTP, S-MIME, IPSec, SSH
- Wireless Security, Bluetooth standards
- TCP/IP, UDP, DNS, SMTP, SNMP standards and protocols
- Intrusion detection systems, firewalls and content checkers;
- Cryptographic Algorithms
- Security best practices
- Develop and implement Security Programs such as: biometrics, digital rights management, RFID, access control, removable media management, etc
- Design and develop prototypes
- Research of open source material with a view to analyzing trends and emerging technologies
- Develop proof-of-concept models and trials for IT Security
- Analyze Research & Development reports
- Participate in national/international Research & Development forums
- Complete tasks directly supporting the departmental IT Security and Cyber Protection Program
- Develop and deliver training material relevant to the resource category

Specialties could include but are not limited to:

- | | | | |
|----------|----------|-----------------------|----------|
| ● SSL, | ● S-MIME | ● X.400/X.500 | ● TCP/IP |
| ● HTTP | ● IPSec | Directory Standards | ● UDP |
| ● S-HTTP | | ● X.509 | ● DNS |
| ● FTP | | Certificate Protocols | ● SMTP |
| ● Telnet | | | ● SNTP |

6.15 Computer Forensics Specialist

Experience Levels

Level 1: <5 years of experience

Level 2: 5-<10 years of experience

Level 3: 10+ years of experience

Responsibilities could include but are not limited to:

- Review, analyze, and/or apply:
 - Forensic policy, standards, procedures and guidelines
 - Network and computer forensics systems
 - Secure laboratory operations
 - Chain of custody of evidence
 - Computer Incident Investigative Planning and Conduct
 - Courtroom presentations
 - National or international computer law and ethics
- Draft investigative reports
- Complete tasks directly supporting the departmental IT Security and Cyber Protection Program
- Develop and deliver training material relevant to the resource category

Specialties could include but are not limited to:

6.16 PIA Specialist

Experience Levels

Level 1: <5 years of experience

Level 2: 5-<10 years of experience

Level 3: 10+ years of experience

Responsibilities could include but are not limited to:

- Review, analyze, and/or apply:
 - Treasury Board Privacy Impact Assessment Policy and Guidelines
 - Federal Privacy Act and Regulations
 - Treasury Board Privacy and Data Protection Policy
 - Personal Information Protection and Electronic Documents Act (PIPEDA)
 - GC IT/IM policies and guidelines
 - Government On-Line (GOL) initiatives
 - Secure Channel Network including its technical and business processes and service offerings
 - IT Security practices and principles
 - IT Security technological solutions
- Conduct privacy impact assessments (PIAs) and preliminary privacy impact assessments (PPIAs) of projects and concepts, in accordance with the requirements of:
 - Treasury Board Privacy Impact Assessment Policy
 - Treasury Board Privacy Impact Assessment Policy Guidelines
 - Other relevant standards, procedures and guidelines
- Analyze the flow of information using the PIA model provided by the client
- Conduct privacy analysis to provide evidence of compliance with privacy principles and to identify privacy risks
- Develop Privacy Risk Management Plans
- Develop recommendations as to possible privacy risk mitigation strategies
- Complete tasks directly supporting the departmental IT Security and Cyber Protection Program
- Develop and deliver training material relevant to the resource category

Specialties could include but are not limited to:

-

6.17 EMSEC Security Specialist

Experience Levels

Level 1: <5 years of experience

Level 2: 5-<10 years of experience

Level 3: 10+ years of experience

Responsibilities could include but are not limited to:

- Plan, review, develop and provide recommendation on the installation of high assurance crypto devices and classified IT systems in accordance with EMSEC policies and guidance publications
- Conduct EMSEC inspection of facilities and make recommendations with respect to relevant aspects of classified IT security architecture and systems
- Review, analyze, evaluate and provide recommendations relating to EMSEC zoning
- Review, analyze, test/evaluate and provide recommendations relating to walk-in radio frequency shielded enclosures

Specialties could include but are not limited to:

Stream 7 (T) TELECOMMUNICATIONS SERVICES

7.1 Radio Frequency (RF) Systems Specialist

Experience Levels

Level 1: <5 years of experience

Level 2: 5-<10 years of experience

Level 3: 10+ years of experience

Responsibilities could include but are not limited to:

- Review, analyze, and provide recommendations on LF/MF/HF/VHF/UHF system and sub-system interface documentation;
- Recommend LF/MF/HF/VHF/UHF system level solutions for discrepancies, deficiencies, and changes to equipment and specifications;
- Liaise with LF/MF/HF/VHF/UHF sub-system technical groups to ensure system integrity, performance, reliability, and maintainability;
- Provide LF/MF/HF/VHF/UHF system integration, analysis, and evaluation services;
- Prepare the planning and procurement support documentation, including technical data specifications, plans and drawings, standards, and SOWs for miscellaneous interface and facility ancillary items;
- Review, analyze, and provide recommendations relating to LF/MF/HF/VHF/UHF system components and associated documentation;
- Conduct design, technical, and management reviews to monitor, advise, and report on progress and potential problems;
- Conduct LF/MF/HF/VHF/UHF system integration testing and evaluation;
- Analyze LF/MF/HF/VHF/UHF system deficiencies and recommends cost effective solutions;
- Review and report upon suitability of industry documentation; and
- Conduct technical definition studies and options analysis.

Specialties could include but are not limited to:

7.2 Satellite Communication Specialist

Experience Levels

Level 1:<5 years of experience

Level 2:5-<10 years of experience

Level 3:10+ years of experience

Responsibilities could include but are not limited to:

- Prepare operational satellite communications deficiency and requirements documentation;
- Review, analyze, and provide recommendations on satellite communications interface documentation;
- Review, analyze, and provide recommendation on satellite communications engineering details, including plans, specifications, and related data, to assess their adequacy and suitability;
- Recommend satellite communications level solutions based on an analysis of discrepancies, deficiencies and changes to equipment and specifications;
- Liaise with engineering groups to ensure satellite communications integrity, performance, reliability, and maintainability;
- Provide satellite communications integration and analysis services;
- Review, analyze, and provide recommendations relating to satellite communications, and associated documentation;
- Conduct design, technical, and management reviews to monitor, advise, and report on progress and potential problems;
- Conduct satellite communications integration testing and evaluation;
- Manage test and evaluation plans and presents the results;

- Analyze satellite communications deficiencies and recommends effective solutions;
- Review, analyze and provide recommendations on the suitability of industry documentation;
- Develop test plans for prototypes and full tests; and
- Conduct technical definition studies and options analyses.

Specialties could include but are not limited to:

7.3 Telecommunication Cable Plant Designer

Experience Levels

Level 1: <5 years of experience

Level 2: 5-<10 years of experience

Level 3: 10+ years of experience

Responsibilities could include but are not limited to:

- Complete the planning, technical design, and engineering required for the construction, installation, and maintenance of internal and external telecommunications supporting infrastructure in accordance with applicable codes and standards;
- Confirm rights-of-way and easements;
- Use surveying equipment to complete topographical surveys of cable routes;
- Ensure that the elevations of cable plant underground supporting infrastructures are correct;
- Ensure that the environmental impact studies and recommendations have been carried out before recommending that the project proceed;
- Prepare a statement of requirements (SOR) identifying the construction engineering work to be completed for the project;
- Complete the technical design and engineering required to determine the transmission design, cable routing, and protection devices that are needed for internal and external coaxial, copper and fibre optic telecom and data cable networks;
- Prepare technical installation drawings, sketches, specifications, and installation directive(s) required for the project;
- Investigate and reports upon all on-site utilities, including power, water, gas, sewer, storm drains, etc., to ensure sufficient clearance is available for the proposed cable routes;
- Review, interpret, and complete technical assessments and designs;
- Prepare technical designs and specifications;
- Determine and prepare a list of the materials needed to complete the project;
- Develop Technical Installation Directive, technical drawings, and other supporting documentation for review and distribution to the installing agent and to other associated agencies;
- Review and monitor project implementation plans while the project is in progress, and recommends appropriate changes in courses of action to the technical authority;
- Complete technical reviews of telecommunication requests;
- Conduct requirements analysis with end-users to recommend and determine their information technology requirements, including the hardware and connectivity needs;
- Perform technical acceptance testing as well as technical and quality assurance inspections on telecommunications cable network projects;
- Analyze and interpret test results and takes or recommend necessary corrective actions;
- Provide updates and briefings to the technical authority and on-site personnel on the development and status of the project; and
- Conduct technical briefings for construction and installation staff, consultants, and contractors.

Specialties could include but are not limited to:

7.4 Telecommunication Technician

Experience Levels

Level 1: <5 years of experience

Level 2: 5-<10 years of experience

Level 3: 10+ years of experience

Responsibilities could include but are not limited to:

- Review, analyze, and provide recommendations on telecommunication system and sub-system interface documentation, including radio, microwave, satellite, network, and telecom;
- Recommend telecommunication system level solutions to address discrepancies, deficiencies and changes to equipment and specifications;
- Liaise with telecommunication sub-system technical to ensure system integrity, performance, reliability, and maintainability;
- Support the preparation, planning and development of procurement documentation, such as technical data specifications, plans and drawings, standards, and SOWs, for miscellaneous interface and facility ancillary items;
- Conduct design, technical and management reviews to monitor and advise on progress and potential problems;
- Conduct telecommunication system integration testing and evaluation;
- Analyze telecommunication system deficiencies and recommends appropriate solutions;
- Review, analyzes, and provides recommendations on the suitability of industry documentation;
- Develop test plans for prototypes and full system tests; and
- Conduct technical definition studies and options analyses.

Specialties could include but are not limited to:

7.5 Private Branch Exchange (PBX) Technologist

Experience Levels

Level 1: <5 years of experience

Level 2: 5-<10 years of experience

Level 3: 10+ years of experience

Responsibilities could include but are not limited to:

- Review, analyze, and provide recommendations on PBX system and sub-system interface documentation;
- Review, analyze, and provide recommendation for solutions for PBX system level for discrepancies, deficiencies and changes to equipment and specifications;
- Liaise with PBX sub-system technical groups to ensure system integrity, performance, reliability, and maintainability;
- Conduct PBX system integration, testing, analysis and evaluation services;
- Prepare documentation related to PBX, including technical data specifications, plans and drawings, standards, and SOWs, for miscellaneous interface and facility ancillary items;
- Review, analyze, and provide recommendations relating to PBX system components and associated documentation;
- Contribute to the design, technical, and management reviews to monitor, advise, and report on progress and potential problems related to PBX;
- Analyze PBX system deficiencies and recommends cost effective solutions;
- Review and report upon the suitability of industry documentation on PBX Systems; and
- Conduct technical definition studies and options analysis related to PBX.
- Review, analyze and evaluate network monitoring and performance tools/reports. Determine and advise on required
- corrective action(s) for system performance and availability enhancements;
- Review and analyze PBX traffic studies and network management data, and provide timely recommendations;

- Analyze and identify, from a technology perspective, new service requirements for connectivity or feature enhancement.

Specialties could include but are not limited to:

7.6 Telecommunication System Specialist

Experience Levels

Level 1: <5 years of experience

Level 2: 5-<10 years of experience

Level 3: 10+ years of experience

Responsibilities could include but are not limited to:

- Review, analyze, and provide recommendations on telecommunication system and sub-system interface documentation, including radio, microwave, satellite, network, and telecom;
- Recommend telecommunication system level solutions for discrepancies, deficiencies and changes to equipment and specifications;
- Liaise with telecommunication sub-system technical groups to ensure system integrity, performance, reliability, and maintainability;
- Analyze and integrate telecommunication systems;
- Prepare planning and procurement support documentation, such as technical data specifications, plans and drawings, standards, and SOWs, for miscellaneous interface and facility ancillary items;
- Review, analyze, and provide recommendations relating to telecommunication system components and associated documentation;
- Participate in design, technical, and management reviews to monitor, advise, and report on progress and potential problems;
- Conduct telecommunication system integration testing and evaluation;
- Analyze telecommunication system deficiencies and recommends cost effective solutions;
- Review, analyze, and provide recommendations on the suitability of industry documentation;
- Conduct technical definition studies and options analyzes; and
- Design, manage and maintain telecommunication systems.

Specialties could include but are not limited to:

7.7 Antenna Structure Engineer

Experience Levels

Level 1: <5 years of experience

Level 2: 5-<10 years of experience

Level 3: 10+ years of experience

- All Levels: - Must have a minimum of a university undergraduate degree in Engineering from a Canadian Council of Professional Engineers (CCPE) accredited engineering program (Copy of certificate to be provided with the Bidder's proposal). Or;
- Alternatively, should the candidate's degree be from a non-CCPE accredited engineering program, their engineering education credentials must be deemed 'substantially equivalent' by the CCPE via an application to the Engineering International - Education Assessment Program, (EI-EAP), (Copy of the official CCPE judgment to be included).
 - Must be a licensed as a Professional Engineer by the recognized Provincial Licensing Authority in the province or territory of work.

Responsibilities could include but are not limited to:

- Perform professional certifications, such as, "stamps" drawings, under the Professional Engineers Act of the Province of Ontario, or under a similarly appropriate act in the applicable jurisdiction;
- Review, analyze, and provide recommendations on system and sub-system interface documentation;
- Review and evaluate engineering details, including plans, specifications, and related data, to assess their adequacy and suitability;

- Recommend system level solutions for discrepancies, deficiencies and changes to equipment and specifications;
- Liaise with sub-system engineering groups to ensure system integrity, performance, reliability, and maintainability;
- Provide system integration, analysis and evaluation services;
- Prepare planning and procurement support documentation, such as technical data specifications, plans and drawings, standards, and SOWs, for miscellaneous interface and facility ancillary items;
- Review, analyze, and provide recommendations relating to system components and associated documentation;
- Participate in design, technical, and management reviews to monitor, advise, and report on progress and potential problems;
- Conduct system integration testing and evaluation;
- Manage test and evaluation plans and presents the results;
- Analyze system deficiencies and recommends cost effective solutions;
- Develop test plans for prototypes and full system tests;
- Conducts engineering and technical definition studies and options analyzes;
- Design and test prototype electronics assemblies, including the integration and customization of available IT hardware and software packages;
- Perform antenna towers engineering;
- Perform Radio Communications (LF/MF/HF/VHF/UHF) engineering;
- Perform microwave systems engineering.

Specialties could include but are not limited to:

7.8 Radio Frequency (RF) Engineer

Experience Levels

Level 1:<5 years of experience

Level 2:5-<10 years of experience

Level 3:10+ years of experience

- All Levels: - Must have a minimum of a university undergraduate degree in Engineering from a Canadian Council of Professional Engineers (CCPE) accredited engineering program (Copy of certificate to be provided with the Bidder's proposal). Or;
- Alternatively, should the candidate's degree be from a non-CCPE accredited engineering program, their engineering education credentials must be deemed 'substantially equivalent' by the CCPE via an application to the Engineering International - Education Assessment Program, (EI-EAP), (Copy of the official CCPE judgment to be included).
 - Must be a licensed as a Professional Engineer by the recognized Provincial Licensing Authority in the province or territory of work.

Responsibilities could include but are not limited to:

- Perform professional certifications, such as certifying frequency engineering briefs, under the Professional Engineers Act of the Province of Ontario, or under a similarly appropriate act in the applicable jurisdiction;
- Review and comment upon system and sub-system interface documentation;
- Review and evaluate engineering details, including plans, specifications and related data, to assess their adequacy and suitability;
- Recommend system level solutions for discrepancies, deficiencies and changes to equipment and specifications;
- Liaise with sub-system engineering groups to ensure system integrity, performance, reliability, and maintainability;
- Provide system integration, analysis, and evaluation services;
- Prepare planning and procurement support documentation, such as technical data specifications, plans and drawings, standards, and SOWs, for miscellaneous interface and facility ancillary items;
- Review, analyze, and provide recommendations relating to system components and associated documentation;
- Participate in design, technical and management reviews or meetings in order to monitor and advise on progress and potential problems;
- Conduct system integration testing and evaluation;

- Manage test and evaluation plans and presents the results;
- Analyze system deficiencies and recommends cost effective solutions;
- Review and reports upon suitability of contractor produced documentation;
- Develop test plans for prototypes and full system tests;
- Conduct engineering and technical definition studies and options analyses;
- Design and test prototype electronics assemblies, including integration and customization of available IT hardware and software packages;
- Conduct radio communications (LF/MF/HF/VHF/UHF) engineering;
- Conduct digital and computer systems engineering, voice and data network engineering; and microwave systems engineering.

Specialties could include but are not limited to:

7.9 Lineman Technician

Experience Levels

Level 1: <5 years of experience

Level 2: 5-<10 years of experience

Level 3: 10+ years of experience

Responsibilities could include but are not limited to:

- The resource must conduct scheduled preventive maintenance and necessary corrective actions on internal and external cable plants to include all aerial, buried, antenna support structures and underground systems and associated hardware;
- Conduct scheduled preventive maintenance on all telecommunication rooms (TRs) and main telecommunication rooms (MTRs) to include inside cable, equipment racks/trays, metallic bonding and grounding, labeling, fire stopping and cable records;
- Conduct as directed by the Line Section Manager emergency/priority repair capabilities for all installed copper/fibre/support structures;
- Operate DND Line construction vehicles (up to a 5-ton with a derrick boom) and equipment to erect poles and install pole line hardware and cables;
- Perform installation and repair capability to external cable plants to include antennae support systems;
- Perform installation and repair capability to internal cable plants to include Data Voice Outlet (DVO) installation/removal, alarm circuits, CATV, and fibre patches;
- Maintain accurate copper and fibre electronic cable records database utilizing Microsoft office products;
- Perform Lineman Technician-related tasks incidental to the work described herein

Specialties could include but are not limited to:

Non - IT Streams

FLEXIBLE GRID

Each class of services has its own flexible grid. The flexible grid indicates the minimum level of points required to qualify for each Level of Expertise. Various amounts of points are given for relevant education, professional certification and relevant experience. The flexible grid must be used for all categories in a class unless otherwise specified.

Experience

The experience must be demonstrated and be directly related to the category. SA Suppliers should provide complete details as to where, when, month and year, and how, through which activities/responsibilities, the stated qualifications/ experience were obtained. Experience gained during formal education will not be considered work experience. All requirements for work experience will be obtained in a legitimate work environment as opposed to an educational setting. Co-op terms are considered work experience provided they are related to the required services. The month(s) of experience listed for a project whose time frame overlaps that of another referenced project, will only be counted once.

The qualifications and experience of the proposed consultant(s) will be assessed against the requirements set out in the resulting Request for Proposal (RFP). The Identified User may request reference information. Canada reserves the right to request references from an SA Supplier to conduct a reference check to verify the accuracy of the information provided.

Education

Academic Certification (Degree, etc) must be obtained through a recognized academic institution in the field of expertise. Points will only be awarded for the highest level of education achieved by the Consultant.

If applicable, the consultant(s) proposed must meet the education requirements detailed in the resulting RFP for the category for which they are being proposed. Where the RFP requests the SA Supplier to provide information about the education of the proposed individual, the individual must have obtained its education from a recognized* Canadian university, college or high school, or the equivalent as established by a recognized* Canadian academic credentials assessment service, if obtained outside Canada.

*The list of recognized organizations can be found under the Canadian Information Centre for International Credentials website, at the following Internet link: <http://www.cicic.ca/indexe.stm>.

Relevant professional certification

The professional certification must be valid and relevant to the specific category. A maximum of one (1) certification will receive points.

How to use the Flexible Grid

Points will be allocated to each consultant proposed by the SA Supplier for the education, the certification and the experience. The total of points will determine if the consultant is considered as a Level 1, 2 or 3.

The Identified User will specify the minimum number of points in the Mandatory Criteria in the resulting RFP for the level of expertise (level 1, 2 or 3) of the Category needed for their requirement. The SA Supplier will have to propose a consultant meeting the minimum of points required to obtain that level. The SA Supplier can propose a consultant with a higher level of expertise, but the ceiling per diem rate of the level of expertise required by the Identified User will apply. The Identified User may specify other Mandatory and Rated Criteria in the resulting RFP for the bidder and or their proposed consultant(s). Also, if needed, the Identified User has the discretion to add mandatory requirements for type and quantity of education, certification or experience and the SA Supplier must propose a consultant meeting the Identified Users requirement.

The Identified User will have the responsibility to assess if the education, certification and experience are related to the category.

Example

Identified User's requirements:

- In the Human Resources Services Class, Staffing Consultant, Level of Expertise 2
- Mandatory minimum points required is 70 pts.

The flexible grid to be use is the general flexible grid of the Human Resources Services Class:

HUMAN RESOURCES SERVICES CLASS FLEXIBLE GRID		
Levels of Expertise		
	Level 3 (Senior)	Minimum 95 pts
	Level 2 (Intermediate)	Minimum 70 pts
	Level 1 (Junior)	Minimum 50 pts
Relevant Education to the Category		
	University (PhD, Graduate, Undergraduate, degree).	35 pts
	College or CEGEP Diploma / Certificate.	25 pts
	High School Diploma.	20 pts
Professional Certification		
	Relevant Professional Certification	15 pts
Relevant Experience in Category		
	≥1 yr and <2 yrs	12-23 months 10 pts
	≥2 yrs and <4 yrs	24-47 months 20 pts
	≥4 yrs and <6 yrs	48-71 months 30 pts
	≥6 yrs and <8 yrs	72-95 months 40 pts
	≥8 yrs and <10 yrs	96-119 months 50 pts
	≥10 yrs	120 + months 60 pts

The categories proposed by different SA Suppliers and points given:

	Consultant A		Consultant B		Consultant C	
	Résumé Points		Résumé Points		Résumé Points	
Education	Bachelor	35	CEGEP	25	High School	20
Certification	None	0	Public Service Staffing Certification	15	Public Service Staffing Certification	15
Experience	8 years	50	6.5 years	40	70 months	30
Total		85		80		65
Result	Responsive:		Responsive		Non-Responsive: Does not have enough points to meet the level 2 requirement.	

Consultant A & B will be evaluated against the additional mandatory and rated criteria in the resulting RFP prepared by the Identified User.

CERTIFICATIONS EXAMPLES

The Certification must be relevant to the field of application. Acceptable certifications include but are not limited to those on the following list. Whether listed or not, it is incumbent upon the supplier to demonstrate the relevance of professional certification(s) to the proposed work.

- Appraisal Institute of Canada
- Canadian Institute of Planners
- Certification in technical writing (TWC 900 or TWC 950)
- Certified Associate in Project Management (CAPM)
- Certified Business Analyst Professional (CBAP)
- Certified Employee Benefit Specialist (CEBS)
- Construction Estimator Certified (CEC)
- Certified Financial Planner (CFP)
- Certified General Accountant (CGA)
- Certified HR Professional (CHRP)
- Certified Information Systems Security Professional (CIISP)
- Certified Management Accountants (CMA)
- Certified Management Consultant (CMC)
- Certified Professional Purchaser (C.P.P.)
- Chartered Accountant (CA)
- Chartered Financial Analyst (CFA)
- Fellow Chartered Financial Practitioner(FChFP)
- International Association of Facilitators **Certified Professional Facilitator** (IAF-CPF)
- International Personnel Management Association Certified Professional (IPMA-CP)
- International Personnel Management Association Certified Specialist (IPMA-CS)
- ITC2's Experience Certification
- Master Financial Planner (MFP)
- Procurement and Contract Management Program (PCMP)
- Professional Engineer (PEng)
- Real Estate Institute of Canada
- Project Management Professional (PMP)
- Project Management Institute Scheduling Professional (PMI-SP)
- Program Management Professional (PgMP)
- Professional Quantity Surveyor (PQS)
- Planning & Scheduling Professional (PSP)
- PRINCE2 Practitioner
- Registered Architect (e.g. OAA, OAQ)
- Registered Financial Planner (RFP)
- Successful completion of the Public Service Commission Appointment Framework Knowledge Test
- Accreditation in Classification in the Federal Public Service Context
- Formal training on the Federal Public Service Executive Classification Standard
- PSC Staffing Certification (issued up to Dec. 2005)
- National Staffing Council Certification (for requirements starting Jan. 2010)
-

OTHER CATEGORY SPECIFIC CERTIFICATIONS

Non-IT

STREAM 8 - HUMAN RESOURCES SERVICES

Human Resources Services Class Flexible Grid

The flexible grid applied to all Categories of the Human Resources Services Class, unless otherwise specified.

HUMAN RESOURCES SERVICES CLASS FLEXIBLE GRID			
Levels of Expertise			
	Level 3 (Senior)	Minimum 95 pts	
	Level 2 (Intermediate)	Minimum 70 pts	
	Level 1 (Junior)	Minimum 50 pts	
Relevant Education to the Category			
	University (PhD, Graduate, Undergraduate, degree)	35 pts	
	College or CEGEP Diploma / Certificate.	25 pts	
	High School Diploma.	20 pts	
Professional Certification			
	Relevant Professional Certification	15 pts	
Relevant Experience in Category			
	≥1 yr and <2 yrs	12-23 months	10 pts
	≥ 2 yrs and <4 yrs	24-47 months	20 pts
	≥4 yrs and <6 yrs	48-71 months	30 pts
	≥ 6 yrs and <8 yrs	72-95 months	40 pts
	≥ 8 yrs and <10 yrs	96-119 months	50 pts
	≥10 yrs	120 + months	60 pts

8.1 HUMAN RESOURCES CONSULTANT

The required services may include, but are not limited to the following:

HR Programs and Services can include: human resource planning, recruitment, collective bargaining, training and development, organizational design and classification, pay and benefit administration, staffing and resourcing, performance management, official languages, employment equity and employee assistance programs

1. Providing operational HR services;
2. Developing resourcing strategies linked to HR Plans, job marketing strategy and tools;
3. Assisting in redress process, appeals, grievances etc;
4. Providing advice on and/or performing analysis of the HR strategic direction and assisting in the development of HR options, aligning and integrating the HR plans with the strategic direction of the organization's business plan;
5. Participating in the development of potential HR models and assisting in the implementation of HR requirements and a transition plan to meet HR needs;
6. Developing, implementing and providing advice on policies, programs and procedures regarding human resource services and programs;
7. Planning Human Resources in areas such as organizational development, organizational planning and design, human resources utilization, job analysis, performance planning, auditing and evaluating and forecasting;
8. Providing advice on and/or participating in the establishment of processes and HR systems support for human resources programs, services and activities;
9. Providing advice on and/or participating in the development of new programs for employees to retain career mobility;
10. Identifying policy needs/concerns and performing comparative analysis of policies as well as developing policies, procedures, guidelines and Strategies;

11. Planning, developing, implementing and evaluating personnel and employee relations strategies including policies, programs and procedures to address an organization's human resource requirements;
12. Advising managers and employees on the interpretation of compensation and benefit programs and collective agreements;
13. Researching, preparing and conducting grievance committees and prepare reports;
14. Conducting research and analysis and preparing recommendations, reports and/or conducting desk audits;
15. Leading, participating in the conduct of organizational and central agencies monitoring and audit initiatives;
16. Negotiating collective agreements on behalf of employers or employees, mediate labour disputes and grievances and provide advice on employee and labour relations;
17. Planning and administering HR programs;
18. Hiring and overseeing training of staff;
19. Coordinating employee performance and appraisal programs;
20. Conducting reviews, developing implementation strategies;
21. Develop training and information sessions on HR services;
22. Providing mentoring, tutoring and coaching assistance on HR services;
23. Assisting in the development of HR strategies to meet business needs;
24. Assisting in the development of Integrated Business and Human Resources Plan to meet the needs of the organization;
25. Developing and monitoring framework, conducting monitoring activities and preparing monitoring reports;
26. Developing, implementing HR related programs, framework and initiatives;
27. Evaluating programs and activities and reporting on lessons learned or making recommendations for the future;
28. Researching or fact findings developing, implementing and tracking service standards, agreements; and
29. Reviewing and proposing various organizational models.

8.2 ORGANIZATIONAL DESIGN AND CLASSIFICATION CONSULTANT

The required services may include, but are not limited to the following:

1. Performing strengths, weaknesses, opportunities, and threats (SWOT) analysis;
2. Leading organization and classification projects following project management principles;
3. Developing and/or implementing functional communities organizational models and associated generic work descriptions;
4. Developing functional charting;
5. Developing generic work description framework and develop appropriate learning tools for its application;
6. Analyzing current and end state, developing options and recommending new organizational structures (could include costing);
7. Reviewing existing work processes and organizational structures to determine their efficiency and effectiveness, and making recommendations;
8. Performing job, activities and responsibilities analysis;
9. Discussing with management in order to clearly define the activities and responsibilities of a specific function and/or organization, and provide options;
10. Reviewing, evaluating current work descriptions and recommending appropriate changes
11. Developing and updating generic and specific work descriptions, and delineating responsibilities within streams of work;
12. Developing and implementing new classification standards and occupational group structures, as well as providing advice;
13. Providing advice and performing activities on conversion processes and redress mechanisms in the context of classification reform;
14. Identifying policy needs/concerns;
15. Researching and developing policies, guidelines, procedures and tools;
16. Researching, preparing relativity, evaluating work descriptions;
17. Participating in classification grievance committees and classification committees and writing reports;
18. Researching and preparing classification relativity studies;
19. Developing and/or providing advice on classification policies, procedures and tools;
20. Analyzing policies and business functional requirements to identify information, procedures and decision flows, and making recommendations;
21. Identifying organization for re-design; prototyping potential solutions, providing trade off information and suggesting a recommended course of action;

22. Identifying the required modifications to the automated processes;
23. Documenting workflow;
24. Articulating business requirements;
25. Providing advice in defining new requirements and opportunities for applying efficient and effective solutions: identifying and providing preliminary costs of potential options;
26. Provide mentoring, coaching assistance, and/or training on classification or organizational design;
27. Developing and delivering training;
28. Evaluating performance framework, developing performance needs and reporting systems and processes;
29. Researching, analyzing data and reporting on activities;
30. Carrying out performance monitoring and reporting on activities;
31. Developing and updating performance management systems, process and tools;
32. Providing advice and/or performing activities related to classification monitoring;
33. Researching, developing and implementing generic work descriptions approaches;
34. Reviewing, evaluating, new or revised work descriptions;
35. Compiling information and preparing reports; and
36. Developing, monitoring framework, conducting monitoring activities and preparing monitoring reports.

8.3 EMPLOYMENT EQUITY CONSULTANT

The required services may include, but are not limited to the following:

1. Coordinating and providing advice on Employment Equity (EE), Diversity and Duty To Accommodate (DTA) programs;
2. Developing a promotion/communications strategy plan;
3. Developing and implementing positive measures programs for all designated groups as required;
4. Managing the DTA program by liaising with other Departments/Agencies delivering accommodation services, this includes providing presentations to management and employees; and, identifying, and providing accommodation resources;
5. Organizing seminars, workshops, etc.;
6. Publishing promotional and educational articles in departmental and regional newsletters;
7. Conducting reviews, developing implementation strategies;
8. Advising HR Systems groups and IT groups on discipline requirements;
9. Developing training and information sessions about EE;
10. Providing mentoring and coaching assistance about EE;
11. Developing pool of diversified members to participate in evaluation and assessment, developing tools to ensure adapted language in work description and selection tools as well as advertisement representative of Canadian culture and diversity;
12. Research and developing EEE and Diversity Action Plans;
13. Researching and developing EE and Diversity related programs, tools and identifying and implementing related activities;
14. Conducting System Reviews and making recommendations;
15. Establishing, coordinating and participating on various EE and Diversity Committees;
16. Developing policies, guidelines, procedures, programs and tools;
17. Developing, implementing, coordinating and promoting commemorative events and activities; and
18. Developing terms of references for EE and Diversity Committees.

8.4 EMPLOYEE RELATION CONSULTANT

The required services may include, but are not limited to the following:

1. Directing employee relations function;
2. Performing internal audits and taking appropriate action to correct any employee relations issues;
3. Managing dispute resolution procedures;
4. Conducting reviews and developing implementation strategies
5. Providing mentoring and coaching assistance;
6. Conducting investigations, negotiating cases, informal conflict management;
7. Developing information and training sessions in relationship management and communications;

8. Conducting investigation, negotiating cases and informal conflict management;
9. Researching, developing policies, guidelines and procedures in regards to Codes of conducts, values and ethics, conflict of interest, political activity, prevention of harassments, etc;
10. Developing employee relations policies, to ensure consistent application of organizational policies and procedures;
11. Developing occupational safety and health policies, guidelines, procedures and tools;
12. Conducting consultation activities with the unions;
13. Coordinating labour management committee meetings (national or local);
14. Researching, providing recommendation for the negotiation of collective agreements;
15. Providing advice on the interpretation of collective agreements; and
16. Developing, assisting in the development of strike contingency plans and strike management guidelines, tools, communication, and training.

8.5 COMPENSATION CONSULTANT

The required services may include, but are not limited to the following:

1. Advising and analyzing of pension due to high level of retiree and complexity and scarce resources;
2. Providing pay and benefits services to the organization's employees and managers;
3. Payrolling (Compensation, pensions, bonuses, etc.);
4. Providing advice and guidance on special initiatives, such as pay equity, classification reform conversion and/or any new collective agreement implementation, in accordance with Federal Public Service Acts, regulations, policies, guidelines, administrative procedures, etc;
5. Preparing and studying salary and/or total compensation analysis for determination of employee compensation;
6. Reviewing and making recommendations or changes to compensation plan or procedures;
7. Overseeing program for conformance with government and organization regulations and procedures;
8. Providing assistance in producing and directing the organization's compensation program;
9. Reviewing benefit programs and providing information about their costs and coverage;
10. Providing support in implementing benefit programs and procedures;
11. Providing advice and guidance on benefit plans for the organization;
12. Developing and/or reviewing work descriptions and assessing appropriate compensation level;
13. Participating in market salary surveys;
14. Developing policies, procedures and guidelines;
15. Conducting reviews, developing implementation strategies;
16. Developing a training and information sessions on compensation;
17. Providing a mentorind and coaching on compensation; and
18. Participating in activities related to advise and anaylsis of pension due to high level of retiree and complexity and labour scarcity.

8.6 HR INFORMATION SYSTEM CONSULTANT

The required services may include, but are not limited to the following:

Human Resources can include: human resource planning, recruitment, collective bargaining, training and development, organizational design and classification, pay and benefit administration, staffing and resourcing, performance management, official languages, employment equity and employee assistance programs

1. Providing advice on the development and implementation strategies related to Human Resources Information Systems (HRIS, HRMIS, PeopleSoft, SAP);
2. Examining and verifying employee information processed by automated human resources systems;
3. Compiling and analyzing statistical information and preparing system reports related to payroll, recruiting, position classification, compensation, training, equal opportunity employment, or affirmative action utilizing HRIS
4. Providing assistance with HRIS network maintenance by adding or deleting users and retaining system security;
5. Troubleshooting user technical problems, consulting HRIS IT resources where necessary and providing training;
6. Managing programs and maintaining human resources information and related records systems;

7. Developing policies, procedures and guidelines;
8. Conducting reviews, developing implementation strategies;
9. Providing mentoring and coaching assistance about HR information system;
10. Developing and providing training and information sessions about HR information system;
11. Developing HR Reports and template and tools for managers to simplify access and encourage them to use system; and
12. Developing mapping exercise, analysis of needs, implementation.

8.7 LEADERSHIP DEVELOPMENT CONSULTANT

The required services may include, but are not limited to the following:

1. Analyzing executive/manager leadership skills strengths and weaknesses;
2. Developing leadership improvement programs;
3. Establishing and facilitating forums and workshops for managers to share leadership experiences and challenges;
4. Designing, developing and implementing mentorship programs and sessions;
5. Conducting reviews and developing implementation strategies;
6. Developing information sessions about leadership development;
7. Developing talent management and succession readiness strategies;
8. Developing target workshops that helps managers become sponsors or agents of change and how to use effective communication as a change tool;
9. Conducting benchmarking exercises; and
10. Developing key functions concepts for succession planning.

LEADERSHIP DEVELOPMENT CONSULTANT FLEXIBLE GRID			
Levels of Expertise			
		Level 3 (Senior)	Minimum 100 pts
		Level 2 (Intermediate)	Minimum 80 pts
		Level 1 (Junior)	Minimum 65 pts
Relevant Education to the Category			
		University (PhD, Graduate, Undergraduate, degree).	35 pts
		College or CEGEP Diploma / Certificate.	25 pts
Professional Certification			
		Relevant Professional Certification	15 pts
Relevant Experience in Category			
	≥1yr and <2 yrs	12-23 months	15 pts
	≥2yrs and <4 yrs	24-47 months	20 pts
	≥5yrs and <6 yrs	48-71 months	30 pts
	≥6 yrs and <8 yrs	72-95 months	35 pts
	≥8 yrs and <10 yrs	96-119 months	55 pts
	≥10 yrs	120 + months	65 pts

8.8 STAFFING CONSULTANT

The required services may include, but are not limited to the following:

(Please note that a Staffing Consultant who will be providing staffing advise to managers as part of their responsibilities, must have successfully completed the PSC Appointment Framework Knowledge Test for all Departments who have a signed Appointment Delegation and Accountability Instrument with the PSC.)

1. Developing staffing and resourcing strategies;
2. Developing monitoring framework and implement and conduct monitoring;
3. Providing manager with demographic information and assisting in developing strategies to meet HR needs;
4. Providing advice and guidance on different types of merit criteria/qualifications;
5. Providing advice on workforce and process pros and cons;

6. Identifying links with departmental Human Resources / Employment Equity / Business plans;
7. Providing advice on effectiveness of assessment instruments and assisting in development or choice of proper instruments;
8. Advising manager of organizational policy;
9. Assisting manager in appropriate sequencing and application of merit criteria;
10. Providing advice, guidance, and assistance on review of decision and impact of change, if any;
11. Creating departmental staffing report (s) including preparation, data gathering, interviews, and monitoring staffing report and various activities;
12. Performing activities including recourse, appeals, early intervention process, and alternative dispute resolutions for staffing purposes;
13. Extending job offers and establishing starting salaries;
14. Developing or assisting in developing strategies and plans (i.e. staffing or resourcing);
15. Developing monitoring framework and implementing and conducting monitoring;
16. Developing and reviewing appointment sub-delegation instruments, the sub-delegation process and the supporting tools (i.e. tables, sub-delegation certificates);
17. Conducting environmental and statistical reviews;
18. Reviewing organizational needs and business needs to assist in the identification of the appropriate staffing strategy or plans (including links to other plans such as the Employment Equity and Diversity Plan and the Official Languages Plan);
19. Providing advice and recommendations in regards to addressing staffing and recruitment challenges considering organizational strategies and plans;
20. Developing and implementing recruitment and employment strategies;
21. Providing advice and recommendations in selecting the choice of appointment process;
22. Preparing and conducting recruitment and staffing processes on behalf of management. This may include any or any grouping of the following activities:
 - making recommendations on the staffing process type to be undertaken;
 - drafting and finalizing the statement of merit criteria;
 - developing and preparing the assessment guide, tools and process;
 - drafting and finalizing the advertisements;
 - coordinating and participating in the assessment of priorities, and the screening and assessments of candidates;
 - coordinating and administering tests, interviews; coordinating and completing the reference check etc; and
 - compiling and preparing the final board reports and finalizing the results of the processes (such as establishing pools of candidates).
23. Planning, developing, coordinating and administering various staffing and staffing related initiatives such as job fairs, collective staffing and targeted Recruitment initiatives;
24. Providing operational staffing services to a group of client managers;
25. Providing advice and guidance to managers on staffing investigations, audits and Public Service Staffing Tribunal Complaints;
26. Developing staffing policies, guidelines, procedures, and tool;
27. Providing monitoring and reporting activities with respect to staffing within the organization or for central agencies;
28. Drafting staffing report(s) including the preparation, data and information gathering, interviews, drafting of documentation;
29. Developing information and learning sessions or events for managers, employees or staffing experts;
30. Reviewing employees' or candidates' qualifications to address redeployment or placement of personnel;
31. Developing a framework or process for pool management and coordinate the management of a pool;
32. Advising managers and employees on staffing policies and procedures; and
33. Providing mentoring, tutoring or coaching assistance on staffing.

8.9 HR POLICY DEVELOPMENT CONSULTANT

The required services may include, but are not limited to the following:

HR Policy can include: human resource planning, recruitment, collective bargaining, training and development, organizational design and classification, pay and benefit administration, staffing and resourcing, performance management, official languages, employment equity and employee assistance programs

1. Developing and monitoring public policies, programs, standards and procedures;
2. Identifying policy needs and concerns;
3. Performing policy comparative analysis;
4. Advising managers on the interpretation of policies, programs and national/ international agreements and regulations;
5. Identifying change management tools and processes that support change management strategies and plans;
6. Carrying out performance monitoring and reporting activities; and
7. Develop and deliver training on application of policies.

8.10 HR ASSISTANT CONSULTANT

The required services may include, but are not limited to the following:

HR activities can include: human resource planning, recruitment, collective bargaining, training and development, organizational design and classification, pay and benefit administration, staffing and resourcing, performance management, official languages, employment equity and employee assistance programs.

1. Ensuring the appropriate preparation, completion, distribution and filing of HR documentation;
2. Ensuring the appropriate data entry, and/or the compilation of data and information and the preparation of reports;
3. Responding to human resources inquiries and relaying the inquiry to the appropriate person;
4. Assisting in the development of administrative procedures and tools;
5. Assisting in the coordination of appointments, interviews, testing, scheduling of events and learning sessions etc;
6. Providing administrative support to HR Manager, Advisors or an HR Specialist; and
7. Providing administrative, clerical or coordinating support in the development and/or implementation of HR activities, programs and tools.
8. Executing human resources support activities;
9. Providing assistance in the areas of human resources, or employee communications;
10. Delivering a variety of written tests to candidates and requesting testing as required;
11. Training administrative assistants in client organizations on procedures and automated systems used for completing HR Activities;
12. Providing direct advice, guidance and services to clients for HR services;
13. Maintaining and updating HR systems, keeping hard copies of files, records and correspondence on related current HR activities and helping develop new systems or improving the existing system;
14. Adjusting, modifying and updating HR management methods, practices and procedures; and
15. Providing administrative services to include project and research activities in a given HR sector and the implementation of a wide range of administrative procedures and processes to support the HR programs.

HR ASSISTANT FLEXIBLE GRID		
Levels of Expertise		
	Level 3 (Senior)	Minimum 60 pts
	Level 2 (Intermediate)	Minimum 50 pts
	Level 1 (Junior)	Minimum 30 pts
Relevant Education to the Category		
	College or CEGEP Diploma / Certificate	25 pts
	High School Diploma.	20 pts
Relevant Experience in Category		
	≥1 yr and <2 yrs	10 pts

≥2 yrs and <4 yrs	24-47 months	25 pts
≥4 yrs and <6 yrs	48-71 months	35 pts
≥6 yrs and <8 yrs	72-95 months	40 pts
≥8 yrs and <10 yrs	96-119 months	45 pts
≥10 yrs	120 + months	50 pts

STREAM 9 - BUSINESS CONSULTING / CHANGE MANAGEMENT

Business Consulting / Change Management Class Flexible Grid

The flexible grid applied to all categories of the Business Consulting / Change Management Class, unless otherwise specified.

BUSINESS CONSULTING / CHANGE MANAGEMENT CLASS FLEXIBLE GRID			
Levels of Expertise			
		Level 3 (Senior)	Minimum 95 pts
		Level 2 (Intermediate)	Minimum 70 pts
		Level 1 (Junior)	Minimum 50 pts
Relevant Education to the Category			
		University (PhD, Graduate, Undergraduate, degree)	35 pts
		College or CEGEP Diploma / Certificate.	25 pts
Professional Certification			
		Relevant Professional Certification	15 pts
Relevant Experience in Category			
	≥1 yr and <2 yrs	12-23 months	10 pts
	≥2 yrs and <4 yrs	24-47 months	20 pts
	≥4 yrs and <6 yrs	48-71 months	25 pts
	≥6 yrs and <8 yrs	72-95 months	35 pts
	≥8 yrs and <10 yrs	96-119 months	50 pts
	≥10 yrs	120 + months	60 pts

9.1 BUSINESS ANALYST

The required services may include, but are not limited to the following:

1. Advising Senior Management on a range of issues affecting the organization's ability to achieve the project's business objectives;
2. Identifying opportunities for organizational improvement;
3. Assisting in the prioritization and assignment of organizational improvements;
4. Developing and/or implementing an organizational improvement plan, business plan, policies and standards;
5. Making recommendations and providing advice for improvements and assisting in developing solutions, scenarios and implementing recommendations;
6. Preparing and presenting findings, status and other relevant matters;
7. Collecting and analyzing information and presenting findings on complex issues, carrying out or coordinating research as required and preparing reports;
8. Identifying and researching best practices;
9. Processing problems into solutions or new opportunities/initiatives;
10. Analyzing, advising on, and implementing business processes, strategies and functions;
11. Advising on business decisions;
12. Preparing and advising on contracts structure and enforcement;
13. Leading and managing various business systems and process improvements (*e.g., initiating redesign to promote increased efficiencies and reduce overall costs, implementing improvements to automation of process*);
14. Recognizing market factors and adapting business decisions to the context of the organization's sector and industry;
15. Implementing and advising on measures to mitigate risk;
16. Facilitating Joint Application Development (**JAD**) session and acting as facilitator during workshops;
17. Translating the business requirements into System/Functional requirements;

18. Analyzing and documenting the business requirements and delivering work products through the life cycle;
19. Assessing the organization's capacity/capability to undertake and successfully deliver t an initiative or a change;
20. Consulting stakeholders (individually or by means of facilitating group sessions) to identify comprehensive business requirements;
21. Documenting business requirements for all stakeholders;
22. Providing support in analyzing, evaluating and controlling risks, especially related to requirements;
23. Managing the implementation of an organizational improvement plan to identify, analyze, plan, track and control organizational improvements on a continuous basis; and
24. Performing Strengths, Weaknesses, Opportunities and Threats (SWOT) Analysis when producing a business case to determine whether further investment in a project is warranted.

BUSINESS ANALYST CONSULTANT FLEXIBLE GRID			
Levels of Expertise			
		Level 3 (Senior)	Minimum 100 pts
		Level 2 (Intermediate)	Minimum 80 pts
		Level 1 (Junior)	Minimum 65 pts
Relevant Education to the Category			
		University (PhD, Graduate, Undergraduate, degree)	35 pts
		College or CEGEP Diploma / Certificate.	25 pts
Professional Certification			
		Relevant Professional Certification	15 pts
Relevant Experience in Category			
	≥1 yr and <2 yrs	12-23 months	15 pts
	≥2 yrs and <4 yrs	24-47 months	20 pts
	≥4 yrs and <6 yrs	48-71 months	30 pts
	≥6 yrs and <8 yrs	72-95 months	35 pts
	≥8 yrs and <10 yrs	96-119 months	55 pts
	≥10 yrs	120 + months	65 pts

9.2 BUSINESS CONTINUITY CONSULTANT

The required services may include, but are not limited to the following:

1. Designing and conducting threat and risk assessments;
2. Developing and implementing disaster recovery plans and business continuity plans;
3. Designing exercises for executives, management and staff in the form of exercise seminars, tabletop exercises, command post exercises, simulations and/or full-scale exercises;
4. Developing exercise materials such as exercise scenarios, control plans and evaluation plans;
5. Implementing exercises for executives, management and staff;
6. Performing business continuity in the context of strategic planning, policy and standards development and organizational assessment; and
7. Analyzing and evaluating emergency operations, exercises, conducting lessons learned seminars and writing After-Action Reports.

9.3 BUSINESS CONSULTANT

The required services may include, but are not limited to the following:

1. Specifying the organization's objectives, developing policies, standards and plans to achieve objectives;
2. Advising Senior Management on a range of issues affecting the organization's ability to achieve the business objectives;

3. Identifying opportunities for, assisting in the prioritization of, and assignment of organizational improvement;
4. Developing and/or managing the implementation of an organizational improvement plan to identify, analyze, plan, track and control organizational improvements on a continuous basis;
5. Making recommendations and providing advice for improvements and assisting in developing solutions and implementing recommendations;
6. Collecting and analyzing information and presenting findings on complex issues, carrying out or coordinating research as required and preparing reports;
7. Defining and producing business requirement document;
8. Coaching on business;
9. Assisting stakeholders with understanding their strategic goals;
10. Analyzing stakeholder's business objectives and recommending and developing solutions to address their business problem;
11. Implementing and evaluating cross-functional decisions that will enable an organization to achieve its objectives;
12. Assessing the organization's capacity/capability to undertake and successfully deliver an initiative or a change;
13. Defining, developing and implementing business strategies and plans;
14. Examining the link between the goals of the organization and how the work is performed to achieve those objectives at strategic and operational levels;
15. Processing problems into solutions or new opportunities/initiatives, identifying and researching best practices;
16. Performing Strengths, Weaknesses, Opportunities and Threats (SWOT) analysis; and
17. Developing Mission and Vision statements.

9.4 ORGANIZATION DEVELOPMENT CONSULTANT

The required services may include, but are not limited to the following:

1. Assessing the organization's capacity/capability to undertake and successfully deliver a project, an initiative or a change in the context of the existing organizational environment, programs, and policies;
2. Advising Senior Management on a range of issues affecting the organization's ability to achieve a program or project's objectives;
3. Establishing a set of business rules and policies governing an organization's human resource management arrangements;
4. Assessing existing and planned changes in HR management strategies to ensure consistency between an organization's HR management strategies and government-wide strategies;
5. Designing processes to regularly review and revise existing accountabilities and competencies as the organization evolves;
6. Performing system-centered process mapping to define the structure of organizational processes: including definition of activities to be performed, required inputs, outputs to be produced, and framework within which to operate;
7. Defining potential organizational changes and improvements based on an organization's strategy and values;
8. Developing and/or implementing organizational change and improvement plan including identifying organizational changes and improvements, and prioritization of recommended improvements;
9. Using the appropriate organizational development methodology and approach to assessment and intervention;
10. Prototyping potential solutions, scenarios, providing trade off information and suggesting a recommended course of action on organizational improvements/changes;
11. Providing advice on and/or assisting in implementing organizational changes and improvements;
12. Developing coaching, mentoring, information sessions and training the organization to perform any of the above actions;
13. Conducting reviews and developing implementation strategies; and
14. Conducting organizational health assessment and development of strategy and its implementation.

9.5 BUSINESS PROCESS CONSULTANT

The required services may include, but are not limited to the following:

1. Reviewing existing work processes and organizational structure;
2. Analyzing existing business processes, identifying opportunities for process improvements;
3. Mapping existing processes and developing and mapping recommended new processes, changes;
4. Analyzing business functional requirements to identify information, procedures and decision flows;
5. Providing advice on key initiatives that enable the organization to deploy high-impact business processes that are focused, accountable and measurable;
6. Identifying candidate processes for re-design;
7. Prototyping potential solutions, scenarios, providing trade off information and suggesting a recommended course of action;
8. Providing advice in defining new requirements and opportunities for applying efficient and effective solutions;
9. Identifying and providing preliminary costs of potential options;
10. Providing advice in developing and integrating process and information models between processes to eliminate information and process redundancies;
11. Identifying, recommending and planning new processes;
12. Providing advice on and/or assisting in implementing new processes;
13. Identifying the required modifications to the automated processes;
14. Documenting workflow;
15. Using business, workflow and organizational tools;
16. Developing policies, procedures and guidelines;
17. Conducting reviews and developing implementation strategies;
18. Advising HR Systems groups and IT groups on discipline requirements;
19. Developing training and information sessions and mentoring on business processes; and
20. Analyzing and defining business processes related to both "As Is" and "To Be" status.

9.6 CHANGE MANAGEMENT CONSULTANT

The required services may include, but are not limited to the following:

1. Designing interventions aimed at improving organizational effectiveness through system-centered change;
2. Designing interventions that improve organizational effectiveness through people-centered change and result in: bringing about change, an improved environment, greater involvement and a more responsive workforce;
3. Developing and implementing change management strategies, plans, framework;
4. Identifying change management tools and risks;
5. Providing expertise, consultative advice, guidance and coaching to build project capacity to make effective use of change management strategies and related tools;
6. Articulating the purpose of change in a manner that makes sense to staff and provides a compelling picture of the new organization;
7. Designing and conducting a change readiness assessment in order to plan and carry out a change management strategy;
8. Coaching staff on the value of their contribution within the new organization;
9. Evaluating the effectiveness of the change management initiative.
10. Developing performance measurement/evaluation frameworks;
11. Integrating performance monitoring disciplines in an organization's development or change management plan; and
12. Carrying out performance monitoring and reporting activities on change management.

9.7 NEEDS ANALYSIS AND RESEARCH CONSULTANT

The required services may include, but are not limited to the following:

1. Conducting interviews, surveys and workshops;
2. Collecting, analyzing and synthesizing information that provides insight into best practices and lessons learned that would effectively support managing change;
3. Performing analysis of business processes to recommend the best option to address any concerns, gaps, etc. including the potential risks and benefits;
4. Providing input for the development of new processes; and
5. Carrying out analysis related to the development of business cases including the collection and analysis of cost data.

9.8 BUSINESS ARCHITECT

The required services may include, but are not limited to the following:

1. Developing policies and rules that allow an organization to carry out its mandate and functional responsibilities, and that govern the organization's actual and planned capabilities in terms of data, human resources, communication facilities and management responsibilities;
2. Conducting an assessment of the project's business architecture, process and performances;
3. Recommending changes to improve operational performance;
4. Ensuring consistency and integration with the organization's and government architectures and business strategies;
5. Evaluating the feasibility of the architecture and technologies related to a business change;
6. Developing principles of operation and concept of operations;
7. Identifying risks associated with the architecture and technologies and recommending risk mitigation;
8. Advising Senior Management on trends and emerging technologies and their impact on the organization's and government architectures and business strategies;
9. Recommending alternative solutions, methodologies and strategies;
10. Assisting in the prioritization and assignment of architectural improvements;
11. Managing the development and implementation of an architectural improvement plan; and
12. Coaching, mentoring and training the organization on business architecture.

BUSINESS ARCHITECT CONSULTANT FLEXIBLE GRID			
Levels of Expertise			
	Level 3 (Senior)		Minimum 100 pts
	Level 2 (Intermediate)		Minimum 80 pts
	Level 1 (Junior)		Minimum 65 pts
Relevant Education to the Category			
	University (PhD, Graduate, Undergraduate, degree)		35 pts
	College or CEGEP Diploma / Certificate.		25 pts
Professional Certification			
	Relevant Professional Certification		15 pts
Relevant Experience in Category			
	≥1 yr and <2 yrs	12-23 months	15 pts
	≥2 yrs and <4 yrs	24-47 months	20 pts
	≥4 yrs and <6 yrs	48-71 months	30 pts
	≥6 yrs and <8 yrs	72-95 months	35 pts
	≥8 yrs and <10 yrs	96-119 months	55 pts
	≥10 yrs	120 + months	65 pts

9.9 STATISTICAL ANALYST

The required services may include, but are not limited to the following:

1. Reporting results of statistical analyses, including information in the form of graphs, charts, and tables;
2. Processing large amounts of data for statistical modeling and graphic analysis, using computers;
3. Identifying relationships and trends in data, as well as any factors that could affect the results of research;
4. Analyzing and interpreting statistical data in order to identify significant differences in relationships among sources of information;
5. Preparing estimates and forecasts using statistical techniques;
6. Preparing data for processing by organizing information, checking for any inaccuracies, and adjusting and weighting the raw data;
7. Evaluating the statistical methods and procedures used to obtain data in order to ensure validity, applicability, efficiency, and accuracy;
8. Evaluating sources of information in order to determine any limitations in terms of reliability or usability;
9. Planning data collection methods for specific projects, and determining the types and sizes of sample groups to be used; and
10. Designing research projects that apply valid scientific techniques and utilizing information obtained from baselines or historical data in order to structure uncompromised and efficient analyses.

9.10 KNOWLEDGE MANAGEMENT CONSULTANT

The required services may include, but are not limited to the following:

1. Developing, planning strategies and processes to transfer explicit and tacit knowledge across time, space and organizational change, including retrieval of critical archived information;
2. Facilitating knowledge creation, sharing and reuse;
3. Developing partnerships and alliances, designing creative knowledge spaces, and using incentive structures;
4. Facilitating knowledge of learning styles and behaviours, strive for continuous improvement and be actively engaged in exploring new ideas and concepts;
5. Designing, developing and sustaining communities of interest and practice;
6. Creating, developing and sustaining the flow of knowledge, policies and standards;
7. Understanding the breakthrough skills needed to leverage virtual teamwork and the effective use of social networks;
8. Performing cultural and ethnographic analyses, developing knowledge taxonomies, facilitating knowledge audits, and performing knowledge mapping and needs assessments;
9. Capturing, evaluating and using best-known practices to transfer best practices;
10. Providing mentoring, training and coaching assistance on knowledge management;
11. Moderating focus group/discussion;
12. Consulting on group process;
13. Developing research and implementation strategies for knowledge management, information management, document and records management and data management;
14. Managing change knowledge initiatives and retrieval of critical archived information;
15. Providing group problem solving and decision making;
16. Providing strategic or participatory planning; and
17. Performing Team Building activities.

911 INFORMATION/ RECORDS MANAGEMENT/RECORDKEEPING SPECIALIST

The required services may include, but are not limited to the following:

1. Collecting, crating, receiving and/or capturing information;
2. Organizing, using, and/or disseminating information;
3. Maintaining, storing and/or preserving information;
4. Disposing of information;
5. Coordinating management of an organization's information-based resources, including its information holdings and investment in technology;
6. Planning, directing and controlling all of the organization's information-based resources to meet corporate goals and to deliver programs and services;

7. Coordinating of information storage requirements and interface with Information Technology;
8. Providing document and records management;
9. Coordinating Access to Information and Privacy Act requirements;
10. Defining produce business requirement document.
11. Conducting subject-specific research in the archival holdings of federal departments and agencies;
12. Producing professional research reports based on detailed research into federal records;
13. Developing, organizing, monitoring, conducting and reporting on sustained archival research projects;
14. Identifying, classifying, archiving, preserving, and destroying records;
15. Responsible for the efficient and systematic control of the creation, receipt, maintenance, use and disposition of records, including the processes for capturing and maintaining evidence of and information about business activities and transactions in the form of records.
16. Managing a library or a library service;
17. Cataloguing, indexing and classifying information audio-visual and electronic documents;
18. Organizing and maintaining "virtual" services;
19. Establishing and implementing metadata standards and guidelines;
20. Analyzing and reporting on the effectiveness of the implementation of information management standards;
21. Identifying and analyzing content management issues and providing recommendations to management for improvement;
22. Delivering research and reference services;
23. Searching online systems and the web to find information; and
24. Delivering library services;
25. Provide advice and guidance in the field of Recordkeeping as relates to Capacity Building, Legacy Records Management and e-Records Sustainability;
26. Provide advice and guidance in the field of Recordkeeping as relates to the implementation of Recordkeeping policy, regulations and legal requirements;
27. Provide assistance in the monitoring and evaluation of the Recordkeeping policies and regulations

9.12 EVALUATION SERVICES CONSULTANT

The required services may include, but are not limited to the following:

1. Assessing the readiness of a policy, program or initiative to be evaluated;
2. Planning specific evaluations or related studies of individual or clusters of programs, policies or initiatives;
3. Developing terms of reference for evaluation projects;
4. Preparing logic models, program theories/theories of change or assessment tools;
5. Constructing work plans, including evaluation planning reports or frameworks and associated methodologies;
6. Developing, testing and implementing evaluation methods and data collection tools (including surveys, interview guides, focus group discussions, case studies);
7. Collecting and analyzing both qualitative and quantitative data (including socio-economic and statistical analysis, collecting baseline data, conducting impact analysis);
8. Assessing the relevance and performance (including impact, efficiency and cost-effectiveness) of programs, policies or initiatives;
9. Validating evaluation approaches, methodologies, findings, conclusions and recommendations, using methods such as but not limited to: validation with participants, organizations and conduct of expert panels or peer reviews;
10. Developing evaluation reports or associated products (briefing note, deck, technical report) containing findings, conclusions and recommendations, and undertake report validation and consultations where appropriate and requested;
11. Conducting and writing synthesis or meta-evaluations;
12. Aid in the compilation, analysis and dissemination of findings, lessons learned and best practices;
13. Briefing evaluation staff and program management on major results and findings, including preparation of presentations; and
14. Aid in writing other materials, documents, tools and instruments related to the work.

EVALUATION SERVICES CONSULTANT FLEXIBLE GRID			
Levels of Expertise			
	Level 3 (Senior)	Minimum 95 pts	
	Level 2 (Intermediate)	Minimum 80 pts	
	Level 1 (Junior)	Minimum 65 pts	
Relevant Education to the Category			
	Graduate degree or higher	35 pts	
	Undergraduate degree	25 pts	
Professional Certification			
	Relevant Professional Certification	10 pts	
Relevant Experience in Category			
	≥2 yrs and <4 yrs	24-47 months	30 pts
	≥4 yrs and <6 yrs	48-71 months	35 pts
	≥6 yrs and <10 yrs	72-119 months	45 pts
	≥10 yrs	120 + months	60 pts

9.13 PERFORMANCE MEASUREMENT CONSULTANT

The required services may include, but are not limited to the following:

1. Planning and designing performance measurement frameworks in support of departmental Strategic Outcomes and Program Activity Architectures or performance measurement strategies in support of program monitoring and evaluations, including identifying associated performance measures in accordance with Treasury Board policies and Treasury Board Secretariat guidance and directives;
2. Assessing the adequacy of current performance measurement frameworks and performance measures in federal organizations and the capacity of organizations to create and maintain on-going performance measurement systems at the level of the organization as a whole or at the program, initiative or project level;
3. Developing conceptual frameworks, methodological approaches and designs for performance measurement of projects, programs, services, organizations/institutions, policies and initiatives;
4. Developing performance measurement indicators/measures/benchmarks and tools and instruments for project, program, institutional, or policy monitoring, reviews, or on-going assessments;
5. Providing performance measurement advice and support (e.g. support managers to identify, track and report on results throughout the life cycle of projects, programs, services, policies or initiatives), including providing training or information sessions to build capacity within the organization and assist program management with the establishment of an appropriate ongoing performance measurement system;
6. Compiling, analyzing and/or interpreting performance data and preparing performance reports; and
7. Research performance measurement uses and practices in other jurisdictions (includes provincial and international jurisdictions).

PERFORMANCE MEASUREMENT CONSULTANT FLEXIBLE GRID			
Levels of Expertise			
	Level 3 (Senior)	Minimum 65 pts	
	Level 2 (Intermediate)	Minimum 55 pts	
	Level 1 (Junior)	Minimum 45 pts	
Relevant Education to the Category			
	Graduate degree or higher	30 pts	
	Undergraduate degree	25 pts	
Relevant Experience in Category			
	≥2 yrs and <4 yrs	24-47 months	25 pts
	≥4 yrs and <6 yrs	48-71 months	30 pts
	≥6 yrs and <10 yrs	72-119 months	35 pts
	≥10 yrs	120 + months	40 pts

9.14 SUBJECT MATTER EXPERT

This category can only be used as part of a team where category 9.12 Evaluation Services Consultant or 9.13 Performance Measurement Consultant is used.

Possible subject matter areas of expertise include but are not limited to: Social sciences; General government services; International affairs; Immigration; Defence; Industrial, regional, and Scientific-technological support; Economic development; Environmental and resource-base; Security and public safety; Cultural issues (including multiculturalism); Transportation; Justice and legal; International Policy; International Trade and Commerce; Governance and Corporate Operations; Treasury Operations; and Taxation and Tax Policy.

The required services may include, but are not limited to the following:

1. Providing orientation on their field of expertise to a range of target groups (e.g. program managers, evaluators, corporate planners) including details on key issues in the field and details on best practices in terms of performance measurement and evaluation in those fields;
2. Advising on the design of new or adequacy of existing a) performance measurement frameworks in support of departmental Strategic Outcomes and Program Activity Architectures or b) performance measurement strategies in support of program monitoring and evaluation, including identifying appropriate performance measures and related technical elements (e.g. performance metrics and targets, data sources, and frequencies for data collection) in accordance with Treasury Board policies and Treasury Board Secretariat guidance and directives;
3. Advising on the capacities, skills and resources needed in federal organizations to create, implement and maintain on-going performance measurement systems at the level of the organization as a whole or at the program, initiative or project level;
4. Advising on conceptual frameworks, methodological approaches and designs for performance measurement of and evaluation of projects, programs, services, organizations/institutions, policies and initiatives in those fields;
5. Providing field-specific performance measurement advice (e.g. support managers to identify, track and report on results throughout the life cycle of projects, programs, services, policies or initiatives), including providing training or information sessions to build capacity within organization and assist program management with the collection and interpretation of performance measurement data;
6. Analyzing and/or interpreting performance data and preparing performance reports;
7. Researching field-specific performance measurement uses and practices in other jurisdictions (includes provincial and international jurisdictions);
8. Conducting comparative analysis and advising on best practices, including benchmarking performance, international comparisons and case studies;
9. Providing subject-matter advice to assist in the:
 - Assessment of the readiness of a policy, program or initiative to be evaluated;
 - Scoping and planning of specific evaluations or related studies of individual programs, policies or initiatives;
 - Preparation of logic models, program theories, literature reviews or assessment tools;
 - Constructing of work plans, including evaluation planning reports or frameworks and associated methodologies;
 - Developing, testing and implementing of evaluation methods and data collection tools;
 - Collection and analysis of relevant data (including socio-economic and statistical);
 - Assessment of relevance and performance, including impacts, efficiency and cost-effectiveness of programs, policies or initiatives;
 - Assessment of program governance and management (including assessing risk management and controls, decision-making, planning, development and implementation, transparency and accountability);
 - Developing evaluation reports containing findings, conclusions and recommendations, and undertake report validation and consultations where appropriate and requested;
 - Conducting and writing of synthesis or meta-evaluations;
 - Compilation, analysis and dissemination of findings, lessons learned and best practices;
 - Briefing of program and senior management on major results and findings, including preparation of presentations;
 - Development of other materials, documents, tools and instruments related to the work; and

- Review of the components of evaluations such as primary and secondary data collection activities, surveys, special studies, literature or document reviews, applied statistical analysis and the development of background or analytical discussion papers on program theory and/or alternatives.
10. Validating evaluation approaches, methodologies, findings, conclusions and recommendations, using methods such as (but not limited to) validation from a technical expert standpoint;
 11. Participating on peer review or similar panels for evaluations or act as an third- party reviewer of draft evaluation products;
 12. Advising on sensitivities in their specific fields (e.g. on working with groups of 'at-risk' stakeholders) and issues related to ethics and values related to performance measurement and evaluation; and
 13. Facilitating connection to other key experts in the field as required for performance measurement or evaluation purposes.

SUBJECT MATTER EXPERT FLEXIBLE GRID			
Levels of Expertise			
		Level 3 (Senior)	Minimum 75 pts
		Level 2 (Intermediate)	Minimum 65 pts
		Level 1 (Junior)	Minimum 55 pts
Relevant Education to the Category			
		Graduate degree or higher	35 pts
		Undergraduate degree	25 pts
Relevant Experience in Category			
	≥2 yrs and <4 yrs	24-47 months	20 pts
	≥4 yrs and <6 yrs	48-71 months	30 pts
	≥6 yrs and <10 yrs	72-119 months	35 pts
	≥10 yrs	120 + months	50 pts

STREAM 10 - PROJECT MANAGEMENT SERVICES

Project Management Services Class Flexible Grid

The flexible grid applied to all categories of the Project Management Services Class, unless otherwise specified.

PROJECT MANAGEMENT SERVICES CLASS FLEXIBLE GRID			
Levels of Expertise			
	Level 3 (Senior)	Minimum 95 pts	
	Level 2 (Intermediate)	Minimum 70 pts	
	Level 1 (Junior)	Minimum 50 pts	
Relevant Education to the Category			
	University (PhD, Graduate, Undergraduate, degree).	35 pts	
	College or CEGEP Diploma / Certificate.	25 pts	
Professional Certification			
	Relevant Professional Certification	15 pts	
Relevant Experience in Category			
	≥1 yr and <2yrs	12-23 months	10 pts
	≥2 yrs and <4yrs	24-47 months	20 pts
	≥4 yrs and <6yrs	48-71 months	25 pts
	≥6 yrs and <8 yrs	72-95 months	35 pts
	≥8 yrs and <10 yrs	96-119 months	50 pts
	≥10 yrs	120 + months	60 pts

10.1 PROJECT ADMINISTRATOR

The required services may include, but are not limited to the following:

1. Assisting project team in all management activities including financial, planning and contracting aspects;
2. Providing administrative and technical support of a clerical nature as required to a project team;
3. Assisting in performing such tasks as maintaining project documentation and records;
4. Acting as the first point of contact in a "hot-line" situation by accepting incoming calls, logging calls, attempting to resolve simple problems and following established procedures for more difficult problems;
5. Tracking project change requests;
6. Maintaining and updating relevant project information in manual and/or electronic files; project information might include such things as project activity schedule, status reports, correspondence;
7. Communicating with project management a on administrative matters related to the project; and
8. Assisting in the preparation and coordination of documentation in response to scheduled and unscheduled reports, returns and observations to update management of project progress.

PROJECT ADMINISTRATOR CONSULTANT FLEXIBLE GRID			
Levels of Expertise			
	Level 3 (Senior)	Minimum 90 pts	
	Level 2 (Intermediate)	Minimum 70 pts	
	Level 1 (Junior)	Minimum 55 pts	
Relevant Education to the Category			
	College or CEGEP Diploma / Certificate.	30 pts	
	High School Diploma.	20 pts	
Professional Certification			
	Relevant Professional Certification	15 pts	
Relevant Experience in Category			
	≥1 yr and <2 yrs	12-23 months	10 pts
	≥2 yrs and <4 yrs	24-47 months	20 pts
	≥4 yrs and <6 yrs	48-71 months	25 pts
	≥6 yrs and <8 yrs	72-95 months	35 pts
	≥8 yrs and <10 yrs	96-119 months	50 pts

≥10 yrs	120 + months	60 pts
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10.2 PROJECT MANAGER

The required services may include, but are not limited to the following:

1. Planning and coordinating project management activities including financial, planning and contracting aspects;
2. Planning and organizing a project management office;
3. Giving briefings on progress and concerns of project;
4. Coordinating and preparing documentation in response to scheduled and unscheduled reports, returns and observations to update management on project progress;
5. Planning and coordinating the activities of project personnel, internal customers, contractors and other support providers;
6. Preparing formal work breakdown structure and compliance charts;
7. Producing draft plans and sections for incorporation into the Project Implementation Plan;
8. Preparing draft evaluation plans, criteria and evaluation schedules;
9. Developing, planning, analyzing, evaluating and prioritizing deliverables and requirements;
10. Defining and documenting development team objectives;
11. Determining and obtaining budgetary requirements, composition, roles, responsibilities and terms of reference for the team;
12. Planning, directing and controlling the activities of a project team within scheduled time and cost parameters;
13. Monitoring the design, implementation and operations start up of the project against established goals, objectives and milestones;
14. Reporting progress of the project on an ongoing basis and at scheduled points in the life cycle;
15. Meeting with stakeholders and other project managers and stating problems in a form capable of being solved;
16. Preparing plans, charts, tables and diagrams to assist in analyzing or displaying problems;
17. Working with a variety of project management tools;
18. Formulating and managing project plans by defining deliverables, identifying key milestones, reviewing project progress, and engaging in ongoing risk management;
19. Coordinating and directing project team(s) in order to meet project objectives for content, quality, costs, and schedules;
20. Ensuring management staff is provided with timely and accurate project information and status updates
21. Developing project control and reporting procedures and managing changes in operational plan;
22. Conducting post project reviews / lessons learned;
23. Contributing to the organization's strategic and business planning initiatives (*e.g., identifying strategic goals and objectives and implementing initiatives to achieve them, Policy Development, Standards Development and Program Review*)
24. Assuming leadership at the appropriate phases of planning, action, and evaluation;
25. Recognizing and taking action on opportunities to combine professional resources through partnering arrangements (*e.g., multi-disciplinary practices*); and
26. Contributing to development of organizational vision and mission.

PROJECT MANAGER CONSULTANT FLEXIBLE GRID		
Levels of Expertise		
Level 3 (Senior)		Minimum 100 pts
Level 2 (Intermediate)		Minimum 80 pts
Level 1 (Junior)		Minimum 65 pts
Relevant Education to the Category		
University (PhD, Graduate, Undergraduate, degree).		35 pts
College or CEGEP Diploma / Certificate.		25 pts
Professional Certification		
Relevant Professional Certification		15 pts
Relevant Experience in Category		
≥1 yr and <2 yrs	12-23 months	15 pts
≥2 yrs and <4 yrs	24-47 months	20 pts
≥4 yrs and <6 yrs	48-71 months	30 pts
≥6 yrs and <8 yrs	72-95 months	35 pts

≥8 yrs and <10 yrs	96-119 months	55 pts
≥10 yrs	120 + months	65 pts

10.3 PROJECT LEADER /EXECUTIVE

The required services may include, but are not limited to the following:

1. Assessing the organization's capacity/capability to undertake and successfully deliver a project in the context of the overall program or portfolio program or portfolio priorities through strategic planning;
2. Advising Senior Management on a range of issues affecting the organization's ability to achieve the project's business objectives;
3. Assisting in the prioritization and assignment of projects within the program/portfolio;
4. Managing several Senior Project Managers, each responsible for an element of the project/program/portfolio and it's associated team (e.g. project and financial management);
5. Meeting with organizational executives to ensure all organizational (internal and external) stakeholders are committed to moving forward on the project (e.g. opportunity evaluation);
6. Formulating statements of problems; establishing procedures for the development and implementation of significant, new or modified project, program or portfolio elements to solve these problems, and obtaining approval thereof;
7. Managing the implementation of a project/program/portfolio to identify, analyze, plan, track and control progress on a continuous basis;
8. Making recommendations and providing advice for improvements and assisting in developing solutions and implementing recommendations (e.g. policy development and standards development);
9. Preparing and presenting findings, status and other relevant matters;
10. Overseeing the development of a Project Business Case (e.g. business planning and program review);
11. Managing Program changes in accordance with the change management process; and
12. Motivating the team to ensure commitment to the program's objectives.

PROJECT LEADER/EXECUTIVE CONSULTANT FLEXIBLE GRID			
Levels of Expertise			
	Level 3 (Senior)	Minimum 100 pts	
	Level 2 (Intermediate)	Minimum 80 pts	
	Level 1 (Junior)	Minimum 65 pts	
Relevant Education to the Category			
	University (PhD, Graduate, Undergraduate, degree).	35 pts	
	College or CEGEP Diploma / Certificate.	25 pts	
Professional Certification			
	Relevant Professional Certification	15 pts	
Relevant Experience in Category			
	≥1 yr and <2 yrs	12-23 months	15 pts
	≥2 yrs and <4 yrs	24-47 months	20 pts
	≥4 yrs and <6 yrs	48-71 months	30 pts
	≥6 yrs and <8 yrs	72-95 months	35 pts
	≥8 yrs and <10 yrs	96-119 months	55 pts
	≥10 yrs	120 + months	65 pts

10.4 PROJECT PLANNER

The required services may include, but are not limited to the following:

1. Developing and maintaining project schedules, documentation and a Master Schedule of all projects and resources if more than one project;
2. Tracking the progress of the project including cost and schedule controls;
3. Documenting issues and resolutions related to the project scheduler;
4. Communicating verbally and in writing with the Project Manager and if necessary with stakeholders to input modifications to the project schedule;
5. Communicating with the Project Manager and if necessary with stakeholders regarding project status and deliverables;
6. Informing management of Project status and direction;
7. Contributing to the development and management of process and procedures used in Operations; and
8. Documenting and managing project and financial records as appropriate.

PROJECT PLANNER FLEXIBLE GRID			
Levels of Expertise			
		Level 3 (Senior)	Minimum 90 pts
		Level 2 (Intermediate)	Minimum 70 pts
		Level 1 (Junior)	Minimum 55 pts
Relevant Education to the Category			
		College or CEGEP Diploma / Certificate	30 pts
		High School Diploma	20 pts
Professional Certification			
		Relevant Professional Certification	15 pts
Relevant Experience in Category			
	≥1 yr and <2 yrs	12-23 months	10 pts
	≥2 yrs and <4 yrs	24-47 months	20 pts
	≥4 yrs and <6 yrs	48-71 months	25 pts
	≥6 yrs and <8 yrs	72-95 months	35 pts
	≥8 yrs and <10 yrs	96-119 months	50 pts
	≥10 yrs	120 + months	60 pts

10.5 QUALITY ASSURANCE / MANAGEMENT SPECIALIST

The required services may include, but are not limited to the following:

1. Developing, deploying and evaluating policies, procedures, standards, initiatives, metrics, forms and tools for the quality management system;
2. Verifying and confirming if the quality management system's process assets (policies, procedures and standards) are being adhered to;
3. Leading process improvement initiatives, and facilitating/coaching teams which are performing process improvement initiatives;
4. Managing and monitoring all aspects of the Quality Management System;
5. Conducting conformance audits of the Quality Management System. Reporting results and recommending appropriate corrective actions to deal with the non-conformances;
6. Tracking and reporting on the implementation of corrective actions. Confirming that corrective actions effectively addressed the root-causes of the non-conformances;
7. Contributing to the development and implementation of an integrated approach to quality, risk and performance management for the organization;
8. Providing leadership and support to the design, implementation and evaluation of performance/quality measurements of clients products/services (Program assessment/ranking and reporting, performance measurement capacity building, business performance/excellence)
9. Using multiple Quality Management methodologies and tools to address the organization's business needs (Measurement and management of organizational performance);
10. Developing process management by application of continuous improvement methodology;
11. Preparing reports concerning the capabilities, strengths and weaknesses of the Quality Management Systems for internal or external publication which could be communicated to project management team through oral or written presentations (Basic statistical analysis techniques, questionnaire design and survey analysis. Ability to influence others, at all levels in the organization); and
12. Liaising with and interviewing quality management specialists from other organizations.

10.6 RISK MANAGEMENT SPECIALIST

The required services may include, but are not limited to the following:

1. Conducting risk assessments and evaluating potential risk and losses;
2. Identifying project and procurement risks;
3. Reviewing and auditing claims;
4. Recommending alternative solutions, methodologies and strategies for risk mitigation and management;
5. Assisting in prioritization and assignment of risks;

6. Assisting in the development and/or implementation of Risk Management Plans;
7. Developing and managing the implementation of Risk Management Plans (safety programs) to identify, analyze, plan, track, evaluate and control project risks on a continuous basis throughout the project life cycle;
8. Coaching, mentoring and training project teams in risk mitigation techniques;
9. Developing and implementing business continuity plans;
10. Developing crisis and emergency communication and/or management planning strategies;
11. Reviewing the organization's insurance and risk management programs and making recommendations regarding coverage improvements, administration, loss control and financing mechanisms;
12. Providing leadership and support to the design, implementation and evaluation of clients products/services performance measures, risk management and risk mitigation strategies;
13. Documenting process improvements;
14. Preparing reports for internal or external publication (Corporate Services, Policy, Communications);
15. Liaising with and interviewing stakeholders, as required, to obtain, clarify and exchange information, in-order to co-ordinate and manage the Risk Assessment Process;
16. Identifying, confirming and documenting the risk tolerance for the process, project, program, or strategic risk and using this tolerance to guide all analysis, assessment and recommendations undertaken or produced;
17. Identifying, confirming and documenting the objectives and priorities specific to the process, project, program or strategic direction being assessed, feasibility studies;
18. Identifying relevant risks and opportunities (including, but not limited to, economic, political, operational, legal, reputation, technical, organizational, accounting, banking and social risks) that threaten the objectives and priorities;
19. Utilizing both quantitative and qualitative techniques, as appropriate, to assess the likelihood that a risk event will occur; and/or the impact if the risk event occurs;
20. Recommending a ranked-order for risks and opportunities identified;
21. Recommending and documenting suggested Risk Responses necessary to manage the likelihood and/or impact of the identified risks;
22. Performing Control Risk Assessments and analysis, which may include statistical sampling and analysis of existing controls;
23. Assisting with the on-going monitoring of risk and assisting with the implementation of risk response/mitigation strategies;
24. Preparing draft and finalized risk assessments, briefing notes, presentations and papers related to risk management, and developing and updating risk management plans; and
25. Providing advice with respect to risk management best practices and providing guidance and direction to assist in managing risk.

10.7 PROCUREMENT SPECIALIST

The required services may include, but are not limited to the following:

1. Planning and coordinating procurement activities including financial estimates, business requirements and contracting options (project procurement management, cost and estimate Management, sole source versus RFP process,);
2. Providing briefings on progress and concerns of procurement (Contract process management);
3. Planning, coordinating, preparing and controlling documentation for procurement plan and process, depending on method of procurement;
4. Planning and coordinating the activities of project contractors and other support providers (Procurement integration in Project Management);
5. Preparing, reviewing and/or finalizing Statement of Work for potential procurement;
6. Preparing draft selection methodologies, evaluation plans, evaluation criteria (mandatory and point rated) and evaluation schedules for procurement;
7. Developing, planning, analyzing, evaluating and prioritizing deliverables and requirements (Bid evaluation);
8. Monitoring the implementation and operations of the contract against established goals, objectives and milestones;
9. Reporting progress of the contract on an ongoing basis and at scheduled points in the lifecycle;
10. Identifying potential problems and propose solutions;

11. Ensuring management staff is provided with timely and accurate project information and status updates;
12. Developing and implementing procurement control, monitoring of system contract delivery and continuing service delivery and reporting procedures and managing changes;
13. Conducting post procurement reviews and contractor evaluations / lessons learned; and
14. Leading or participating in negotiations and developing procurement process and/or business process maps

PROCUREMENT SPECIALIST FLEXIBLE GRID			
Levels of Expertise			
	Level 3 (Senior)	Minimum 95 pts	
	Level 2 (Intermediate)	Minimum 70 pts	
	Level 1 (Junior)	Minimum 50 pts	
Relevant Education to the Category			
	University (PhD, Graduate, Undergraduate, degree).	35 pts	
	College or CEGEP Diploma / Certificate.	25 pts	
	High School Diploma	20 pts	
Professional Certification			
	Relevant Professional Certification	15 pts	
Relevant Experience in Category			
	≥1 yr and <2yrs	12-23 months	15 pts
	≥2 yrs and <4yrs	24-47 months	25 pts
	≥4 yrs and <6yrs	48-71 months	35 pts
	≥6 yrs and <8 yrs	72-95 months	45 pts
	≥8 yrs and <10 yrs	96-119 months	55 pts
	≥10 yrs	120 + months	65 pts

10.8 FINANCIAL SPECIALIST

The required services may include, but are not limited to the following:

1. Planning and coordinating financial management activities including financial estimates and business requirements;
2. Evaluating financial management procedures;
3. Conducting cost benefit analysis and life cycle costing (Cost and estimate Management);
4. Developing business plans;
5. Developing models to carry out cost analysis of the resources required to perform specific inspections related to a project (Project Management);
6. Performing risk analysis;
7. Determining the resources required for implementation of projects such as acquisition costs, operation and maintenance costs and both recurring and non-recurring costs;
8. Assisting in developing costs for specific activities such as: direct project costs, project support overhead, corporate and administrative (C&A) overhead, costs of products and services, and other related costs (Financial accounting)
9. Planning, acquiring, and controlling the use of funds so as to meet the goals of an organization and maximize its value (Procurement integration in Project Management, contract process management);
10. Identifying an organization's financial and non-financial objectives so as to improve its performance, determining whether those objectives are being effectively achieved; and
11. Developing and modifying business cases and financial plans for the future.

10.9 PROJECT MONITOR

The required services may include, but are not limited to the following:

1. Following-up on projects, major Crown projects and/or sensitive or complex project initiatives, where Canada requires a third party opinion.
2. Assisting project management professionals in project monitoring and coordination;
3. Providing administrative and technical support as required to the project team;

4. Participating in meetings with project management professionals and other stakeholders (internal and external) to ensure project is progressing, project goals are being met and expected results are being achieved;
5. Ensuring project and contract activities, deliverables, milestones, timelines and financial commitments are tracked and commitments are being fulfilled;
6. Communicating and coordinating meetings with project management professionals and other executive and customer stakeholders on matters related to the project;
7. Performing a liaison role amongst all project management, executives and customer stakeholders;
8. Preparing monthly, quarterly, yearly financial and project reports and other project monitoring reports to management and executives; and
9. Preparing annual reports, project progress reports, results achieved reports, lesson learned documentation and recommendations for improvement documentation at the executive level.

PROJECT MONITOR CONSULTANT FLEXIBLE GRID			
Levels of Expertise			
	Level 3 (Senior)	Minimum 60 pts	
	Level 2 (Intermediate)	Minimum 50 pts	
	Level 1 (Junior)	Minimum 30 pts	
Relevant Education to the Category			
	College or CEGEP Diploma / Certificate	25 pts	
	High School Diploma.	20 pts	
Relevant Experience in Category			
	≥1 yr and <2 yrs	12-23 months	10 pts
	≥2 yrs and <4 yrs	24-47 months	25 pts
	≥4 yrs and <6 yrs	48-71 months	35 pts
	≥6 yrs and <8 yrs	72-95 months	40 pts
	≥8 yrs and <10 yrs	96-119 months	45 pts
	≥10 yrs	120 + months	50 pts

10.10 TECHNICAL WRITER

The required services may include, but are not limited to the following:

1. Analyzing material, such as specifications (technical Statement of Work/Requirement), notes, drawings, writing manuals, user guides and other documents to explain the requirement clearly and concisely;
2. Modifying, validating and compiling documents such as technical publications in general, specifications, equipment and system data lists, drawings etc.;
3. Gathering information, analyzing the subject and the audience, and producing clear documentation;
4. Studying existing material and interviewing Stakeholders;
5. Creating accurate, complete and concise documentation to communicate the needs of the requirement;
6. Assimilating and conveying technical material in a concise, effective manner;
7. Following governmental publishing guidelines; and
8. Reviewing documents, drawings and associated data for conformance to established standards.

10.11 COMMUNICATIONS CONSULTANT

The required services may include, but are not limited to the following:

1. Planning, researching, modifying, assisting, writing and/or reviewing memos, scripts, plays, essays, speeches, manuals and other non-journalistic articles with conformance to established standards;
2. Developing and implementing strategic communication plans in geographically dispersed organizations going through an organizational transformation (change management);
3. Providing communications consultation advice to support strategic communications initiatives and strategies;
4. Creating communications support materials;

5. Developing and implementing creative communication and information products using a variety of tools, techniques and media and selecting an appropriate medium to convey information, ideas, and results;
6. Developing and implementing communication strategies and plans;
7. Evaluating the outcomes of business activities and processes against objectives and benchmarks, and advising on further action (*e.g., conducting and reporting on gap analysis*);
8. Researching, proposing, and implementing models to enhance the effectiveness of performance measures and standards in relation to an organization's strategic plan;
9. Coordinating the implementation of performance measures and standards;
10. Establishing a performance measurement architecture to ensure that local performance measures are linked to strategic goals and corporate objectives;
11. Designing, evaluating, and reporting on internal control systems to ensure that management information is complete and accurate (*e.g., assessing integrity of reporting system*);
12. Expressing and exchanging information in a clear and concise manner;
13. Ensuring information is communicated to the appropriate people in a timely manner;
14. Preparing reports for specific purposes using clear, communicative, and professional language (*e.g., audit reports, management letters, consulting reports, financial reports*);
15. Ensuring communications are clearly understood by encouraging and listening to feedback both internally and externally in the organization;
16. Structuring external communications to project an appropriate corporate image;
17. Ensuring confidentiality with respect to organizational or client information and data.
18. Determine target audiences in order to better develop messages;
19. Identify and determine communications impediments and barriers;
20. Evaluate impacts and benchmark data; and
21. Provide advice on matters relating to policy/program development approaches or options and communications planning alternatives (internal or external)

STREAM 11 - REAL PROPERTY PROJECT MANAGEMENT

Real Property Project Management Services Class Flexible Grid

This flexible grid is applied to all categories of the Real Property Project Management Services Class, unless otherwise specified.

REAL PROPERTY PROJECT MANAGEMENT SERVICES CLASS FLEXIBLE GRID			
Levels of Expertise			
		Level 3 (Senior)	Minimum 95 pts
		Level 2 (Intermediate)	Minimum 70 pts
		Level 1 (Junior)	Minimum 50 pts
Relevant Education to the Category			
		University (PhD, Graduate, Undergraduate, degree)	35 pts
		College or CEGEP Diploma / Certificate	25 pts
Professional Certification			
		Relevant Professional Certification	15 pts
Relevant Experience in Category			
	≥1 yr and <2 yrs	12-23 months	10 pts
	≥2 yrs and <4 yrs	24-47 months	20 pts
	≥4 yrs and <6 yrs	48-71 months	25 pts
	≥6 yrs and <8 yrs	72-95 months	35 pts
	≥8 yrs and <10 yrs	96-119 months	50 pts
	≥10 yrs	120 + months	60 pts

11.1 PROJECT ADMINISTRATOR FOR REAL PROPERTY

The required services may include, but are not limited to the following:

1. Assisting project team in management activities including financial, planning and contracting aspects;
2. Providing financial administrative support to suit requirements;
3. Assisting with security clearance process;
4. Establishing project administration procedures;
5. Providing administrative and technical support of a clerical nature as required to a project team;
Developing document and records management system and control process for project teams;
Receiving incoming mail (both hard copy and e-mail), prioritizes and assesses urgency of mail and sets deadlines;
6. Acting as the first point of contact in a "hot-line" situation by accepting incoming calls, logging calls, attempting to resolve simple problems and following established procedures for more difficult problems;
7. Participating at project meetings, preparing/distributing minutes and records of decision;
8. Providing comprehensive project planning and monitoring, reporting using project plan format;
9. Maintaining and updating relevant project information in manual and/or electronic files; project information might include such things as project activity schedule, status reports, correspondence;
10. Communicating with project management on administrative matters related to the project;
11. Assisting with the review of project requirements with specialists, other jurisdictional authorities and stakeholders;
12. Assisting in the preparation and coordination of documentation in response to scheduled and unscheduled reports to update management of project progress; Providing technical writing support for written reports and presentation decks;
13. Assisting in managing request for information (RFI) procedures;
14. Providing support to tendering and contracting processes as requested; Supporting start-up construction process (preparation & meeting) by assisting in managing construction logistics: forecast, coordinate work, avoid disruptions to occupants;
15. Providing support in the preparation of timely and accurate Contemplated Change Notices (CCN's) and Change Orders (CO's) for approval, tracking and communications; and
16. Supporting post-construction services and post-construction evaluations.

PROJECT ADMINISTRATOR FOR REAL PROPERTY FLEXIBLE GRID			
Levels of Expertise			
		Level 3 (Senior)	Minimum 95 pts
		Level 2 (Intermediate)	Minimum 70 pts
		Level 1 (Junior)	Minimum 50 pts
Relevant Education to the Category			
		College or CEGEP Diploma / Certificate	35 pts
		High School Diploma	25 pts
Professional Certification			
		Relevant Professional Certification	15 pts
Relevant Experience in Category			
	≥1 yr and <2 yrs	12-23 months	10 pts
	≥2 yrs and <4 yrs	24-47 months	20 pts
	≥4 yrs and <6 yrs	48-71 months	25 pts
	≥6 yrs and <8 yrs	72-95 months	35 pts
	≥8 yrs and <10 yrs	96-119 months	50 pts
	≥10 yrs	120 + months	60 pts

11.2 PROJECT MANAGER FOR REAL PROPERTY

The required services may include, but are not limited to the following:

Part A:

1. Developing project scope, requirement documents, statement of work, participating in client discussions, analysis of functional and operational requirements of the client;
2. Preparation of project approval documents (e.g. business cases, feasibility studies, Treasury Board submissions) required for funding or project approval;
3. Planning and coordinating the activities of project personnel, contractors or other support providers, including the preparation of preliminary time schedules for project design and implementation; and
4. Managing architectural/engineering and associated specialists teams, reviewing project costs and resolving variances with predetermined budgets by recommending action and resolving conflicts.

Part B:

5. Planning, directing and coordinating a project management office and its activities within time and cost parameters;
6. Preparing formal work breakdown structure and compliance charts;
7. Producing draft plans and sections for incorporation into Project Plans;
8. Contributing to the organization's strategic and business planning initiatives (e.g., identifying strategic goals and implementing initiatives to achieve them (such as through policy development, standards development and program review);
9. Recognizing and taking action on opportunities to combine professional resources through partnering arrangements (e.g., multi-disciplinary practices);
10. Planning facilitation workshops that address strategic planning, teambuilding, positive-centred learning or conflict management, conducting stakeholder interviews. Preparing workshop material, facilitating the workshop, and on-going partnering process management;
11. Preparing or managing of project documents, such as project charter or plan, client statement of work, investment analysis report, feasibility study, terms of reference, value engineering, lifecycle analysis, commissioning plan or lessons learned;
12. Establishing and reviewing project and construction implementation strategies including, lump sum, phased, construction management, design-build and public-private partnerships;
13. Coordinating consultants retained separately to ensure an integrated design (for example, geotechnical, seismic and environmental designs, functional program and fit-up/office planning);
14. Briefing consultants and contractors on roles, responsibilities and guidelines for contract administration and on-site behavior;
15. Developing an updated Project Plan, noting constraints, assumptions, inclusions and exclusions after review with stakeholders;
16. Coordinating Value Engineering exercises or other strategies aimed at integrated design solutions and cost management; ensuring the review and implementation of outcomes from these processes;
17. Maintaining the design change management process that records changes to the scope of work;

18. Monitoring the design, implementation and operations of the project against established goals;
19. Reporting progress of the project on an ongoing basis;
20. Assisting in the preparation of recommendations to engage or commission consultants, preparing consultant Request for Proposal (RFP) documents and reviewing and evaluating consultant proposals;
21. Reviewing monthly progress claims from consultants for compliance with consultant agreements and recommending payments;
22. Analyzing project schedules including contractor or consultant deliverables and determining whether corrective action is required to meet deadlines;
23. Attending construction site meetings, providing input on interpretation of contract plans and specifications while ensuring that consultants or contractors fulfill their responsibilities under their respective agreements;
24. Preparing plans, charts, tables and diagrams to assist in analyzing or displaying problems;
25. Managing and planning moves, including furniture coordination, cabling and signage procurement and verification;
26. Coordinating and preparing documentation in response to scheduled and unscheduled reports, returns and observations to update management on project progress;
27. At substantial completion, participating in inspections or acceptance boards: inspecting the work, evaluating amounts withheld due to deficiencies, accepting the work on behalf of client, recommending issuance of the interim certificate and payment to the contractor;
28. Incorporating final reports into the Project Plan, including details of outstanding issues, warranties and obligations of consultants or contractors, posting project reviews and lessons learned;
29. Ensuring that deficiencies and incomplete work are identified, managed, corrected and accepted as complete promptly; recommending issuance of final completion certificate; and
30. Developing and maintaining various systems for the management and control of the project in a manner compatible with client standards and guidelines. This includes financial, approval tracking, change management, communications, security protocol for project staff and records management system.

PROJECT MANAGER FOR REAL PROPERTY FLEXIBLE GRID				
Levels of Expertise				
		Level 3 (Senior)	Minimum 100 pts	
		Level 2 (Intermediate)	Minimum 80 pts	
		Level 1 (Junior)	Minimum 65 pts	
Relevant Education to the Category				
		University (PhD, Graduate, Undergraduate, degree)	35 pts	
		College or CEGEP Diploma / Certificate	25 pts	
Professional Certification				
		Relevant Professional Certification	15 pts	
Relevant Experience in Category				
		≥1 yr and <2 yrs	12-23 months	10 pts
		≥2 yrs and <4 yrs	24-47 months	20 pts
		≥4 yrs and <6 yrs	48-71 months	30 pts
		≥6 yrs and <8 yrs	72-95 months	35 pts
		≥8 yrs and <10 yrs	96-119 months	55 pts
		≥10 yrs	120 + months	65 pts

11.3 PROJECT LEADER FOR REAL PROPERTY

The required services may include, but are not limited to the following:

1. Assessing the organization's capability to undertake and successfully deliver a project in the context of the overall program or portfolio priorities through strategic planning;
2. Specifying the general requirements of the project: developing, verifying and gaining acceptance of the project scope, budget, schedule and scope change control;
3. Assisting in the prioritization and assignment of projects within a larger program or portfolio of projects;
4. Managing several Senior Project Managers, each responsible for an element of the project or program or portfolio and its associated team (e.g. project and financial management);

5. Identifying and assigning project roles, responsibilities and reporting relationships, developing work plans, ensuring adequate human resources, and developing a productive team environment;
6. Providing advice and leadership in the development and assessment of potential options on project development, recommending a preferred option and developing an implementation strategy through the preparation of a business case or feasibility study;
7. Meeting, negotiating and gaining support from internal and external organizational stakeholders (e.g. senior government executives, private-sector interests, municipal interests, community groups, etc.);
8. Developing project alternatives and identifying their administrative, organizational, economic, or technical feasibility;
9. Assisting in obtaining required project approvals from relevant stakeholders (internal approval, zoning, heritage, etc.) including the review and interpretation of municipal by-laws;
10. Undertaking due diligence activities for the acquisition or disposal of property (e.g. highest & best use studies, site selection studies);
11. Developing real property master plans, detailed site development plans or land use plans analysing development initiatives (e.g. transportation or servicing studies, analysis of traffic, parking, pedestrian activity, transportation demand management or other urban planning issues);
12. Preparing offer call documents to be used in property acquisition or disposal;
13. Examining and making recommendations concerning land title issues;
14. Identifying, obtaining and managing environmental approvals, permits or licenses;
15. Managing the implementation of a project or program to identify, analyze, plan, track and control progress on a continuous basis;
16. Reviewing and accepting (or requesting changes to) the overall planning, design development and implementation process, including feasibility, environmental, infrastructure, conceptual designs, the associated class of cost estimate, project scheduling project changes, issues management and approval documents;
17. Preparing life-cycle cost estimates using the discounted cash-flow method and sensitivity analysis;
18. Managing program changes in accordance with the change management process;
19. Developing risk management plans;
20. Managing safety as an integrated part of the construction project following accountability frameworks and documentation to ensure consistency of practice and due diligence;
21. Developing a Communications Plan that outlines the claims resolution process;
22. Developing a Communications Plan, press releases and questions and answers to media lines of inquiry;
23. Assisting in organizing media events or building tours for the public or senior management; and
24. Producing camera-ready graphics of communication material or information panels for on-site exposition.

PROJECT LEADER FOR REAL PROPERTY FLEXIBLE GRID			
Levels of Expertise			
		Level 3 (Senior)	Minimum 100 pts
		Level 2 (Intermediate)	Minimum 80 pts
		Level 1 (Junior)	Minimum 65 pts
Relevant Education to the Category			
		University (PhD, Graduate, Undergraduate, degree)	35 pts
		College or CEGEP Diploma / Certificate	25 pts
Professional Certification			
		Relevant Professional Certification	15 pts
Relevant Experience in Category			
	≥1 yr and <2 yrs	12-23 months	10 pts
	≥2 yrs and <4 yrs	24-47 months	20 pts
	≥4 yrs and <6 yrs	48-71 months	30 pts
	≥6 yrs and <8 yrs	72-95 months	35 pts
	≥8 yrs and <10 yrs	96-119 months	55 pts
	≥10 yrs	120 + months	65 pts

11.4 PROJECT PLANNER FOR REAL PROPERTY

The required services may include, but are not limited to the following:

Part A:

1. Identifying project activities and creating and maintaining the project schedule, establishing a time control system, monitoring progress (including cost and schedule controls) and responding to variances;
2. Formulating and maintaining master schedule of all activities and resources by defining deliverables, identifying key milestones and deadlines, reviewing project progress, and engaging in ongoing risk management. Identify (seasonal, site or client) specific impacts on timelines, timelines for work processes and approval periods to master schedule;
3. Developing detailed cash flows as the project progresses to illustrate the sequencing of work and the inter-related activities; and
4. Communicating verbally and in writing with the Project Manager and with stakeholders to input modifications to the project schedule or the project Work Breakdown Structure.

Part B:

5. Visiting the site and providing timely input to update the Master Schedule Plan;
6. Preparing an optimized project schedule, using Critical Path Methodology, to identify measures to shorten total project duration;
7. Reviewing and monitoring overall project schedule on a regular basis using information provided from the project team; mitigate schedule delays as required.
8. Maintaining schedule tracking and change management records;
9. Documenting issues and resolutions related to the project schedule;
10. Communicating with the Project Manager, management team or stakeholders regarding project status and deliverables using logic diagrams, bar charts and narrative reports; and
11. Contributing to the development and management of process and procedures used in operations.

11.5 FINANCIAL/COST SPECIALIST FOR REAL PROPERTY

The required services may include, but are not limited to the following:

Part A:

1. Preparing a cost and cash flow estimate (eg., identifying the resources, levels of effort and related costs) required for the project;
2. Forecasting costs for specific activities such as: direct project costs, project support overhead, corporate or administrative overhead, costs of products and services, leasing costs;
3. Assisting with cost control using problem solving techniques such as life-cycle analysis, value engineering, risk analysis or early estimation (elemental cost analysis);
4. Analyzing trends in the real estate or construction markets and forecasting the impact of such trends on project costs;
5. Monitoring actual or expected costs against previously budgeted costs and preparing variance analysis (eg. analyzing and reporting on costs to complete projects and actions to be taken to stay on budget including the state of risk allowances, reserves or contingencies);
6. Preparing discounted cash-flow analysis including sensitivity analysis;
7. Preparing value-for-money calculations using Monte Carlo Simulation;
8. Preparing historic or pro forma financial statement or ratio analysis (based on financial, employment, spatial or other data); and
9. Providing a review of a financial analysis prepared by a different party.

Part B:

10. Evaluating financial management procedures;
11. Reviewing submissions prepared by consultants or contractors relevant to financial activities;
12. Developing business plans or financial plans;
13. Providing input to update the Master (baseline) Cost Plan through:
 - Site inspections;
 - Assessing the project design and budgets;
 - Ensuring a common understanding of all contingencies or allowances; and

- Comparing and reconciling previous project budgets with the current budget.
14. Providing approved budget, forecast, variances, actuals, billings, payments;
 15. Assisting with cost planning including:
 - Participating in cost planning of project options and “what if” scenarios;
 - Providing advice on cost planning in order to coordinate ongoing project procurement activities with information within the organization’s financial system;
 - Identifying and quantifying potential risks and making contingency recommendations in order to minimize negative cost impacts; and
 - Identifying, forecasting and analyzing project related risks focusing on the presentation, documentation and use of risk allowances or risk reserves or general contingencies.
 16. Developing a detailed worksheet of sub-project annual funding, forecasts, value of work done over the life of the project;
 17. Reviewing and monitoring overall project budget on a regular basis using information provided from the project team;
 18. Highlighting variances and possible mitigation strategies to bring project costs back into budget;
 19. Providing regular reports of project cash flow, including forecasted requirements on an as-required basis; and
 20. Evaluating or applying governmental or industry (i.e. Generally Accepted Accounting Principles) methods in financial decision making as they relate to real property.

FINANCIAL/COST SPECIALIST FOR REAL PROPOERTY FLEXIBLE GRID			
Levels of Expertise			
	Level 3 (Senior)	Minimum 100 pts	
	Level 2 (Intermediate)	Minimum 80 pts	
	Level 1 (Junior)	Minimum 65 pts	
Relevant Education to the Category			
	University (PhD, Graduate, Undergraduate, degree)	35 pts	
	College or CEGEP Diploma / Certificate	25 pts	
Professional Certification			
	Relevant Professional Certification	20 pts	
Relevant Experience in Category			
	≥1 yr and <2 yrs	12-23 months	10 pts
	≥2 yrs and <4 yrs	24-47 months	20 pts
	≥4 yrs and <6 yrs	48-71 months	30 pts
	≥6 yrs and <8 yrs	72-95 months	45 pts
	≥8 yrs and <10 yrs	96-119 months	55 pts
	≥10 yrs	120 + months	65 pts

11.6 PORTFOLIO PLANNER FOR REAL PROPERTY

The required services may include, but are not limited to the following:

1. Analysis of external economic, land use and real estate market trends (environmental trends);
2. Examine and interpret the local and community policies, plans and by-laws;
3. Identifying the impact of anticipated environmental trends on an organization’s real estate portfolio;
4. Developing building or space accommodation standards for an organization;
5. Developing organizational policies concerning the use of real property;
6. Identifying future space requirements of an organization and analyzing alternative solutions to meet such requirements;
7. Preparing profiles of existing building or portfolio condition, performance and utilization;
8. Identifying any potential problems a real estate portfolio presents in meeting organizational goals (eg. strengths/ weaknesses/ opportunities / threats analysis);
9. Comparing the performance of a portfolio or real property organization with its past performance, private-sector industry or government comparables;
10. Developing real property strategies to meet the organization’s goals, accommodation requirements or real property “custodial” responsibilities;

11. Developing strategies to rationalize or dispose of a group of real property;
12. Prioritizing numerous real property projects (e.g., maintenance, renovation / retrofit, tenant improvement, disposal, acquisition) in keeping with an organization's strategic goals and abilities;
13. Preparing real estate development strategies and real property master plans;
14. Preparing land use studies analyzing development initiatives or opportunities (e.g. examining transportation and servicing issues); and
15. Developing a Communications Plan to public and media lines of inquiry.

PORTFOLIO PLANNER FOR REAL PROPERTY FLEXIBLE GRID			
Levels of Expertise			
		Level 3 (Senior)	Minimum 100 pts
		Level 2 (Intermediate)	Minimum 80 pts
		Level 1 (Junior)	Minimum 65 pts
Relevant Education to the Category			
		University (PhD, Graduate, Undergraduate, degree)	35 pts
		College or CEGEP Diploma / Certificate	25 pts
Professional Certification			
		Relevant Professional Certification	15 pts
Relevant Experience in Category			
	≥1 yr and <2 yrs	12-23 months	15 pts
	≥2 yrs and <4 yrs	24-47 months	25 pts
	≥4 yrs and <6 yrs	48-71 months	35 pts
	≥6 yrs and <8 yrs	72-95 months	45 pts
	≥8 yrs and <10 yrs	96-119 months	55 pts
	≥10 yrs	120 + months	65 pts

11.7 CLAIMS ANALYST

The required services may include, but are not limited to the following:

1. Reviewing and analysing project background data and reports with respect to contract issues, i.e. claims, change orders, schedule reports, delays analysis, disputed issues, etc;
2. Providing a complete detailed analysis of the monthly project schedule submissions commencing at the beginning of the project construction;
3. Reviewing contractors As Built Critical Path Schedule and compare to the original Baseline Plan/schedule;
4. Analyzing where schedule delays occurred and define critical/prime issues and causes (delay events) affecting the end date; impact of extension of time; identify concurrent delays;
5. Providing a detailed project Delay Analysis;
6. Identifying causes, circumstances and responsibilities (i.e. Contractor, consultant, PWGSC) leading to delays and potential claims;
7. Completing a change order analysis, including a review of Contemplated Change Notices (CCN) & Change Orders (CO). Include a history of each CO and identify if delays were caused, the extent and impacts on the end date;
8. Establishing costs incurred by the Crown as a result of contractor-caused delays;
9. Analyzing delay impact and associated costs resulting from the cumulative effect of numerous change orders;
10. Assisting the Project Manager in determining why a contractor is claiming for additional costs that have not been covered by change orders; and
11. Providing support in preparation for potential mediation.

5. TECHNICAL, ENGINEERING AND MAINTENANCE SERVICES STREAM

Technical, Engineering and Maintenance Services Stream Flexible Grid

This flexible grid is applied to all consultant categories of the Technical, Engineering and Maintenance Services Stream, unless otherwise specified.

TECHNICAL, ENGINEERING AND MAINTENANCE SERVICES STREAM FLEXIBLE GRID			
Levels of Expertise			
	Senior		Minimum 70 pts
	Intermediate		Minimum 50 pts
	Junior		Minimum 40 pts
Relevant Education to the Consultant Category			
University (PhD, Graduate, Undergraduate, degree).			35 pts
College or CEGEP Diploma / Certificate.			30 pts
High School			15 pts
Professional Certification			
Relevant Professional Certification			10 pts
Relevant Experience in Consultant Category			
≥1 yr and <2 yrs	12-23 months		10 pts
≥2 yrs and <4 yrs	24-47 months		25 pts
≥4 yrs and <6 yrs	48-71 months		35 pts
≥6 yrs and <8 yrs	72-95 months		45 pts
≥8 yrs and <10 yrs	96-119 months		55 pts
≥10 yrs	120 + months		65 pts

12.1 DRAFTSPERSON / ILLUSTRATOR

The required services may include, but are not limited to the following:

1. producing engineering drawings;
2. producing data lists;
3. producing illustrated parts breakdown and parts lists;
4. preparing document illustrations; and
5. preparing computer aided design.

12.2 TECHNICIAN

The required services may include, but are not limited to the following:

1. performing machinist services such as milling, turning, grinding, and fabrication on manually and/or computer controlled machines;
2. performing metal manipulation and welding services involving oxy-acetylene, MIG, TIG and/or special metal welding techniques;
3. performing vehicle mechanic and/or technician services involved in the servicing and repair of vehicle systems and subsystems;
4. performing electrician and/or electrical technician services associated with the servicing and repair of vehicle and communications systems within the vehicle;
5. performing optical, and/or optronic servicing and repair of vehicle and communications systems within the vehicle;
6. performing electronic technician services associated with the servicing and repair of vehicle and communications systems within the vehicle;
7. performing installation and operation of test sensors and programmable data recorders used in conjunction with equipment testing; and

8. performing optical data acquisition technical services including film and digital photo services, normal and high speed video, and/or x-ray photography.

12.3 ENGINEERING GRADUATE

1. The required services encompass all electronic, electrical, optical, mechanical, structural and materiel systems which may include but are not necessarily limited to the following, while under the supervision of a licensed Professional Engineer: preparing specifications for and carrying out the integration of systems and equipment;
2. conducting technical studies to produce technical options, validate and assess options, assess technical risks and evaluate designs;
3. developing design and prototype engineering solutions to technical problems;
4. maintaining and updating Unsatisfactory Condition Report (UCR) and Technical Failure Report (TFR) data bases. Researching, evaluating and responding to UCR/TFRs in conjunction with field support representatives;
5. producing draft specifications of systems, sub-systems, equipment, interfaces or ancillaries;
6. tailoring military or commercial standards, specifications or practices for incorporation into system specifications;
7. producing draft technical evaluation plans and evaluation standards;
8. generating and/or evaluating test plans, procedures and reports;
9. conducting specialized electromagnetic compatibility (EMC) studies, producing acceptable EMC standards and test procedures and evaluating EMC / electromagnetic interference (EMI) test results;
10. designing programmable data acquisition, test sensors and recorders used in conjunction with equipment testing;
11. developing simulation and analytical models and utilizing the models for system and sub-system development and assessment;
12. preparing airworthiness certification management plans;
13. managing the planning, coordination, documentation and engineering efforts connected with the airworthiness certification of modifications to air systems;
14. proposing and/or analyzing engineering change proposals, estimating costs / risks and making recommendations;
15. preparing budgetary estimates for the completion of technical programs;
16. preparing space and weight budgets for installations, assessing proposed designs, evaluating prototypes and developing acceptance tests for user hand over;
17. preparing drawings, data packages and systems manuals;
18. preparing interface standards and integration plans for the utilization of current and new systems/equipment;
19. reviewing and making recommendations on work proposals;
20. participating in planning meetings and technical reviews relating to the design, application management and support of software sub-systems;
21. designing, testing and modifying hardware interfaces to digital computers. Confirming the correct functioning of hardware/software interfaces;
22. preparing specifications and statements of work for the procurement of systems;
23. developing quality assurance and configuration management plans and practices;
24. conducting MA&S process and sub-process assessments and re-engineering;
25. tracking, correcting and recording system and equipment configuration status and/or conformance;
26. preparing business cases, i.e. cost/benefit analysis;
27. developing and assessing maintenance strategies, plans and support requirements;
28. providing equipment project management services; developing environmental protection standards, practices or policies;
29. preparing and reviewing instructions and procedures regarding the appropriate handling, clean-up, protective clothing and safety measures to deal with hazardous materials. Developing

- or obtaining specifications such as material Safety Data Sheets for hazardous materials that are new to the project;
30. conducting environmental or hazardous material assessments of equipment and systems. Assessing the toxicological impact of materials. Investigating alternate non-hazardous options;
 31. conducting system integration analyses on the organization and processes involved the introduction of and provision of ongoing support to vehicle and (or) communication systems;
 32. conducting a detailed derivation of integrated logistic system requirements for vehicle and communication systems within the vehicle and planning for the ongoing support to those systems;
 33. planning the conduct of, providing technical guidance to and conducting statistical analysis of reliability, maintainability, availability and dependability (RAMD) tests of vehicle and communication systems within the vehicle;
 34. managing the planning, coordination, documentation and engineering efforts connected with the configuration management of vehicle and communication systems within the vehicle;
 35. designing, planning, implementing and modifying quality assurance programs within manufacturing, processing or distribution systems;
 36. providing human factors engineering (ergonomics) services (physical and cognitive);
 37. conducting the human factors engineering process such as planning, analysis, design, test and evaluation, fundamentals and facilities of various environmental systems;
 38. conduct reviews of structural designs to ensure compliance with appropriate specifications, standards and guidelines;
 39. perform structural engineering analyses in the area of traditional stress analysis, preliminary design, finite element analysis, damage tolerance assessments, loads derivation, structural dynamic response and/or fracture mechanics analysis; and
 40. preparing design documentation in support of structural engineering services , including draft stress reports, manufacturing drawings and/or design drawings.

ENGINEERING GRADUATE CATEGORY FLEXIBLE GRID		
Levels of Expertise		
	Senior	Minimum 120 pts
	Intermediate	Minimum 90 pts
	Junior	Minimum 80 pts
Relevant Education to the Consultant Category		
University Program Accredited by Professional Engineers (PhD, Graduate, Undergraduate, degree)		55 pts
Professional Certification		
Relevant Professional Certification		10 pts
Relevant Experience in Consultant Category		
≥1 yr and <2 yrs	12-23 months	10 pts
≥2 yrs and <4 yrs	24-47 months	25 pts
≥4 yrs and <6 yrs	48-71 months	35 pts
≥6 yrs and <8 yrs	72-95 months	45 pts
≥8 yrs and <10 yrs	96-119 months	55 pts
≥10 yrs	120 + months	65 pts

12.4 PROFESSIONAL ENGINEER (P. ENG)

Any consultant proposed for this category must be a licensed Professional Engineer in the applicable jurisdiction.

The required services encompass all electronic, electrical, optical, mechanical, structural and materiel systems which may include but are not necessarily limited to the following:

1. preparing specifications for and carrying out the integration of systems and equipment;
2. conducting technical studies to produce technical options, validate and assess options, assess technical risks and evaluate designs;
3. developing design and prototype engineering solutions to technical problems;

4. maintaining and updating Unsatisfactory Condition Report (UCR) and Technical Failure Report (TFR) data bases. Researching, evaluating and responding to UCR/TFRs in conjunction with field support representatives;
5. producing draft specifications of systems, sub-systems, equipment, interfaces or ancillaries;
6. tailoring military or commercial standards, specifications or practices for incorporation into system specifications;
7. producing draft technical evaluation plans and evaluation standards;
8. generating and/or evaluating test plans, procedures and reports;
9. conducting specialized electromagnetic compatibility (EMC) studies, producing acceptable EMC standards and test procedures and evaluating EMC / electromagnetic interference (EMI) test results;
10. designing programmable data acquisition, test sensors and recorders used in conjunction with equipment testing;
11. developing simulation and analytical models and utilizing the models for system and sub-system development and assessment;
12. preparing airworthiness certification management plans;
13. managing the planning, coordination, documentation and engineering efforts connected with the airworthiness certification of modifications to air systems;
14. proposing and/or analyzing engineering change proposals, estimating costs / risks and making recommendations;
15. preparing budgetary estimates for the completion of technical programs;
16. preparing space and weight budgets for installations, assessing proposed designs, evaluating prototypes and developing acceptance tests for user hand over;
17. preparing drawings, data packages and systems manuals;
18. preparing interface standards and integration plans for the utilization of current and new systems/equipment;
19. reviewing and making recommendations on work proposals;
20. participating in planning meetings and technical reviews relating to the design, application management and support of software sub-systems;
21. designing, testing and modifying hardware interfaces to digital computers. Confirming the correct functioning of hardware/software interfaces;
22. preparing specifications and statements of work for the procurement of systems;
23. developing quality assurance and configuration management plans and practices;
24. conducting MA&S process and sub-process assessments and re-engineering;
25. tracking, correcting and recording system and equipment configuration status and/or conformance;
26. preparing business cases, i.e. cost/benefit analysis;
27. developing and assessing maintenance strategies, plans and support requirements;
28. providing equipment project management services; developing environmental protection standards, practices or policies;
29. preparing and reviewing instructions and procedures regarding the appropriate handling, clean-up, protective clothing and safety measures to deal with hazardous materials. Developing or obtaining specifications such as material Safety Data Sheets for hazardous materials that are new to the project;
30. conducting environmental or hazardous material assessments of equipment and systems. Assessing the toxicological impact of materials. Investigating alternate non-hazardous options;
31. conducting system integration analyses on the organization and processes involved the introduction of and provision of ongoing support to vehicle and (or) communication systems;
32. conducting a detailed derivation of integrated logistic system requirements for vehicle and communication systems within the vehicle and planning for the ongoing support to those systems;
33. planning the conduct of, providing technical guidance to and conducting statistical analysis of reliability, maintainability, availability and dependability (RAMD) tests of vehicle and communication systems within the vehicle;
34. managing the planning, coordination, documentation and engineering efforts connected with the configuration management of vehicle and communication systems within the vehicle;

35. designing, planning, implementing and modifying quality assurance programs within manufacturing, processing or distribution systems;
36. providing human factors engineering (ergonomics) services (physical and cognitive);
37. conducting the human factors engineering process such as planning, analysis, design, test and evaluation, fundamentals and facilities of various environmental systems;
38. conduct reviews of structural designs to ensure compliance with appropriate specifications, standards and guidelines;
39. perform structural engineering analyses in the area of traditional stress analysis, preliminary design, finite element analysis, damage tolerance assessments ,loads derivation, structural dynamic response and/or fracture mechanics analysis; and
40. preparing design documentation in support of structural engineering services , including draft stress reports, manufacturing drawings and/or design drawings.
41. Sign-off (stamp) for final approval of technical documentation.

PROFESSIONAL ENGINEER (P. ENG) CATEGORY FLEXIBLE GRID		
Levels of Expertise		
	Senior	Minimum 95 pts
	Intermediate	Minimum 65 pts
	Junior	Minimum 55 pts
Relevant Education to the Consultant Category		
University Program Accredited by Professional Engineers (PhD, Graduate, Undergraduate, degree).		30 pts
Professional Certification		
Professional Engineer (P. Eng.) License Mandatory		
Additional Relevant Professional Certification		10 pts
Relevant Experience in Consultant Category		
≥1 yr and <2 yrs	12-23 months	10 pts
≥2 yrs and <4 yrs	24-47 months	25 pts
≥4 yrs and <6 yrs	48-71 months	35 pts
≥6 yrs and <8 yrs	72-95 months	45 pts
≥8 yrs and <10 yrs	96-119 months	55 pts
≥10 yrs	120 + months	65 pts

12.5 CLOTHING TECHNOLOGIST

The required services may include, but are not limited to the following:

1. Preparing new clothing technical specifications, manufacturing data, purchase descriptions, production drawings, sealed samples and revising existing specifications, drawings, and evaluation of existing sealed samples;
2. Supporting the design and development of clothing;
3. Reviewing and analysing vendors and manufacturers clothing samples and testing results for compliance with given specifications and testing standards;
4. Establishing clothing technical databases for materiel and information management;
5. Researching technical data to confirm accuracy and (or) currency and updating specifications, as required on these findings;
6. Preparing Statements of Work for the design and purchase of prototypes and (or) samples;
7. Investigating Unsatisfactory Condition Reports, Material Authorization Change Requests, Design Change/Deviation Requests, Requests for Waiver, Technical Failure Reports, etc. to determine their legitimacy and to make recommendations for reply;
8. Preparing clothing displays to meet requirements for conferences, exhibitions, briefings and meetings;

9. Converting existing engineering drawings to new drawings utilizing commercial software applications for incorporation into specifications;
10. Recommending revision of clothing scales of measurement in both Imperial and Metric measurements for inclusion in specifications, manufacturing data or purchase descriptions;
11. Investigating designs, materials and processes and recommending solutions to identified technical problems through literature searches and in consultation with industry and technical experts;
12. Supporting preparation of plans for development and (or) assessment of new requirements or items including laboratory, engineering, and field trial protocols
13. Evaluating prototypes and commercial products to determine suitability;
14. Evaluating clothing against technical specifications;
15. Preparing or revising clothing information manuals and instructor manuals;
16. Researching and monitoring emerging technologies and (or) products and (or) industrial capabilities for clothing;
17. Supporting compliance of environmental regulations regarding use and disposal of clothing;
18. Supporting clothing stock reviews and recommending disposal or reassignment; and
19. Supporting preparations of maintenance/supply/repair and overhaul procedures and update notifications.

12.6 TEXTILE TECHNOLOGIST

The required services may include, but are not limited to the following:

1. Preparing new clothing technical specifications, manufacturing data, purchase descriptions, production drawings, sealed samples and revising existing specifications, drawings, and evaluation of existing sealed samples;
2. Supporting the design and development of textiles;
3. Reviewing and analysing vendors and manufacturers textile samples and testing results for compliance to given specifications and testing standards;
4. Establishing textile technical databases for materiel and information management;
5. Researching technical data to confirm accuracy and (or) currency and updating specifications, as required on these findings;
6. Preparing Statements of Work for the design and purchase of prototypes and (or) samples;
7. Investigating Unsatisfactory Condition Reports, Material Authorization Change Requests, Design Change/Deviation Requests, Requests for Waiver, Technical Failure Reports, etc. to determine legitimacy and make recommendations for reply;
8. Supporting textile stock reviews and recommending disposal or reassignment;
9. Preparing clothing and personal protection equipment displays to meet requirements for conferences, exhibitions, briefings and meetings;
10. Converting existing engineering drawings to new drawings utilizing commercial software applications for incorporation into specifications;
11. Recommending revision of clothing scales of measurement in both Imperial and Metric measurements for inclusion in specifications, manufacturing data or purchase descriptions;
12. Supporting preparation or revision of textile information manuals and instructor manuals;
13. Investigating designs, materials and processes and recommending solutions to identified technical problems through literature searches and in consultation with industry and technical experts;
14. Supporting preparation of plans for development and (or) assessment of new requirements or items including laboratory, engineering, and field trial protocols;
15. Evaluating prototypes and commercial products to determine suitability;
16. Evaluating textile against technical specifications;
17. Supporting compliance of environmental regulations regarding use and disposal of textiles; and
18. Researching and monitoring emerging technologies and (or) products and (or) industrial capabilities for textiles.

12.7 PERSONAL PROTECTION EQUIPMENT TECHNOLOGIST

The required services may include, but are not limited to the following:

1. Preparing new clothing technical specifications, manufacturing data, purchase descriptions, production drawings, sealed samples and revising existing specifications, drawings, and evaluation of existing sealed samples;
2. Reviewing and analysing vendors and manufacturers personal protection equipment samples and testing results for compliance to given specifications and testing standards;
3. Establishing personal protection equipment technical databases for materiel and information management;
4. Preparing Statements of Work for the design and purchase of prototypes and (or) samples;
5. Supporting the design and development of personal protection equipment;
6. Investigating Unsatisfactory Condition Reports, Material Authorization Change Requests, Design Change/Deviation Requests, Requests for Waiver, Technical Failure Reports, etc. to determine legitimacy and make recommendations for reply;
7. Converting existing engineering drawings to new drawings utilizing commercial software applications for incorporation into specifications;
8. Supporting personal protection stock reviews and recommending disposal or reassignment;
9. Preparing personal protection equipment displays to meet requirements for conferences, exhibitions, briefings and meetings;
10. Recommending revision of personal protection equipment scales of measurement in both Imperial and Metric measurements for inclusion in specifications, manufacturing data or purchase descriptions;
11. Supporting preparation or revision of personal protection equipment information manuals and instructor manuals;
12. Investigating designs, materials and processes and recommending solutions to identified technical problems through literature searches and in consultation with industry and technical experts;
13. Evaluating prototypes and commercial products to determine suitability;
14. Supporting preparing plans for development and (or) assessment of new requirements or items including laboratory, engineering, and field trial protocols;
15. Evaluating personal protection equipment against technical specifications;
16. Supporting compliance of environmental regulations regarding use and disposal of personal protection equipment;
17. Supporting preparations of maintenance/supply/repair and overhaul procedures and update notifications; and
18. Researching and monitoring emerging technologies and (or) products and (or) industrial capabilities for personal protection equipment;

5.8 NUCLEAR/BIOLOGICAL/CHEMICAL (NBC) PERSONAL PROTECTION TECHNOLOGIST

The required services may include, but are not limited to the following:

1. Preparing new clothing technical specifications, manufacturing data, purchase descriptions, production drawings, sealed samples and revising existing specifications, drawings, and evaluation of existing sealed samples;
2. Supporting the design and development of NBC personal protection equipment;
3. Reviewing and analysing vendors and manufacturers NBC samples and testing results for compliance to given specifications and testing standards;
4. Establishing NBC personal equipment technical databases for materiel and information management;
5. Preparing Statements of Work for the design and purchase of prototypes and (or) samples;

6. Investigating Unsatisfactory Condition Reports, Material Authorization Change Requests, Design Change/Deviation Requests, Requests for Waiver, Technical Failure Reports, etc. to determine legitimacy and make recommendations for reply;
7. Converting existing engineering drawings to new drawings utilizing commercial software applications for incorporation into specifications;
8. Supporting NBC personal protection equipment reviews and recommending disposal or reassignment;
9. Preparing NBC personal protection equipment displays to meet requirements for conferences, exhibitions, briefings and meetings;
10. Recommending of NBC personal protection equipment revision of scales of measurement in both Imperial and Metric measurements for inclusion in specifications, manufacturing data or purchase descriptions;
11. Supporting preparation or revision of NBC personal protection equipment information manuals and instructor manuals;
12. Investigating designs, materials and processes and recommending solutions to identified technical problems through literature searches and in consultation with industry and technical experts;
13. Evaluating prototypes and commercial products to determine suitability;
14. Supporting preparing of plans for development and (or) assessment of new requirements or items including laboratory, engineering, and field trial protocols;
15. Evaluating NBC personal protection equipment against technical specifications;
16. Supporting compliance of environmental regulations regarding use and disposal of NBC personal protective equipment;
17. Reviewing and analysing results of periodic testing of gas masks and canisters;
18. Monitoring gas masks repair operations to identify tooling/facility shortfalls and investigate and recommending solutions;
19. Supporting preparing of maintenance /supply /repair and overhaul procedures and updating notifications; and
20. Researching and monitoring emerging technologies and (or) products and (or) industrial capabilities for NBC personal protection equipment.

12.9 Handwear/Knitted Footwear and Accessories Technologist

The required services may include, but are not limited to the following:

1. Preparing new clothing technical specifications, manufacturing data, purchase descriptions, production drawings, sealed samples and revising existing specifications, drawings, and evaluation of existing sealed samples;
2. Supporting the design and development of handwear/knitted footwear;
3. Reviewing and analysing vendors and manufacturers handwear and knitted footwear samples and testing results for compliance to given specifications and testing standards;
4. Establishing handwear/knitted footwear and accessories technical databases for materiel and information management;
5. Preparing Statements of Work for the design and purchase of prototypes and (or) samples;
6. Investigating Unsatisfactory Condition Reports, Material Authorization Change Requests, Design Change/Deviation Requests, Requests for Waiver, Technical Failure Reports, etc. to determine legitimacy and make recommendations for reply;
7. Supporting handwear/knitted footwear and accessories reviews and recommending disposal or reassignment;
8. Preparing handwear/knitted footwear displays to meet requirements for conferences, exhibitions, briefings and meetings;
9. Converting existing engineering drawings to new drawings utilizing commercial software applications for incorporation into specifications;
10. Recommending revision of handwear/knitted footwear and accessories scales of measurement in both Imperial and Metric measurements for inclusion in specifications, manufacturing data or purchase descriptions;

11. Investigating designs, materials and processes and recommending solutions to identified technical problems through literature searches and in consultation with industry and technical experts;
12. Evaluating prototypes and commercial products to determine suitability;
13. Support preparation of plans for development and (or) assessment of new requirements or items including laboratory, engineering, and field trial protocols;
14. Evaluating handwear/knitted footwear and accessories against technical specifications;
15. Supporting compliance of environmental regulations regarding use and disposal of handwear/knitted footwear and accessories; and
16. Researching and monitoring emerging technologies and (or) products and (or) industrial capabilities for handwear/knitted footwear and accessories.

12.10 FOOTWEAR TECHNOLOGIST

The required services may include, but are not limited to the following:

1. Preparing new clothing technical specifications, manufacturing data, purchase descriptions, production drawings, sealed samples and revising existing specifications, drawings, and evaluation of existing sealed samples;
2. Supporting the design and development of footwear;
3. Reviewing and analysing vendors and manufacturers footwear samples and testing results for compliance to given specifications and testing standards;
4. Establishing footwear technical databases for materiel and information management;
5. Preparing Statements of Work for the design and purchase of prototypes and (or) samples;
6. Investigating Unsatisfactory Condition Reports, Material Authorization Change Requests, Design Change/Deviation Requests, Requests for Waiver, Technical Failure Reports, etc. to determine legitimacy and make recommendations for reply;
7. Supporting footwear reviews and recommending disposal or reassignment;
8. Preparing footwear displays to meet requirements for conferences, exhibitions, briefings and meetings;
9. Converting existing engineering drawings to new drawings utilizing commercial software applications for incorporation into specifications;
10. Recommending revision of footwear scales of measurement in both Imperial and Metric measurements for inclusion in specifications, manufacturing data or purchase descriptions;
11. Investigating designs, materials and processes and recommending solutions to identified technical problems through literature searches and in consultation with industry and technical experts;
12. Evaluating prototypes and commercial products to determine suitability;
13. Supporting preparation of plans for development and (or) assessment of new requirements or items including laboratory, engineering, and field trial protocols;
14. Evaluating footwear against technical specifications;
15. Provision of technical guidance to manufacturers during the production of prototypes that may include plant visits;
16. Supporting compliance of environmental regulations regarding use and disposal of footwear; and
17. Researching and monitoring emerging technologies and (or) products and (or) industrial capabilities for footwear.

12.11 PATTERN DESIGN, DEVELOPMENT, AND SIZING TECHNOLOGIST

The required services may include, but are not limited to the following:

1. Creating and inputting clothing and personal protection equipment new patterns/drawings and revising existing patterns and drawings in the apparel Computer Aided Design (CAD) system;
2. Researching technical data to confirm accuracy and (or) currency and updating clothing and personal protection equipment pattern drawings as required;
3. Supporting the design and development of clothing and personal protection equipment;

4. Reviewing and analysing vendors and manufacturers clothing and personal protection equipment samples and testing results for compliance to given specifications and testing standards;
5. Establishing clothing and personal protection equipment technical databases for materiel and information management;
6. Preparing Statements of Work for the design and purchase of prototypes and (or) samples;
7. Investigating Unsatisfactory Condition Reports, Material Authorization Change Requests, Design Change/Deviation Requests, Requests for Waiver, Technical Failure Reports, etc. to determine legitimacy and make recommendations for reply;
8. Supporting clothing and personal protection equipment pattern and sizing reviews and recommending disposal or reassignment of patterns;
9. Preparing clothing and personal protection equipment displays to meet requirements for conferences, exhibitions, briefings and meetings;
10. Converting existing engineering drawings to new drawings utilizing commercial software applications for incorporation into specifications;
11. Creating clothing and personal protection equipment scales of measurement in both Imperial and Metric measurements for inclusion in specifications, manufacturing data or purchase descriptions;
12. Supporting preparation or revision clothing and personal protection equipment information manuals and instructor manuals;
13. Investigating designs, materials and processes and recommending solutions to identified technical problems through literature searches and in consultation with industry and technical experts;
14. Evaluating prototypes and commercial products to determine suitability;
15. Supporting preparation of plans for development and (or) assessment of new requirements or items including laboratory, engineering, and field trial protocols;
16. Evaluating clothing and personal protection equipment against patterns;
17. Supporting compliance of environmental regulations regarding use and disposal of clothing and personal protection equipment;
18. Creating clothing and personal protection equipment pattern markers for manufacturers and for evaluation of fabric usage estimates;
19. Fabricating prototypes/samples for confirmation of patterns, assembly procedures and upgrading purposes; and
20. Researching and monitoring emerging technologies and (or) products and (or) industrial capabilities for clothing and personal protection equipment.

12.12 CLOTHING AND PERSONAL PROTECTION EQUIPMENT DESIGN AND PROTOTYPING TECHNOLOGIST

The required services may include, but are not limited to the following:

1. Designing, developing and fabricating clothing, personal protection equipment and load carriage prototypes for design acceptance and specification preparation;
2. Evaluating clothing and personal protection equipment prototypes from industry to determine construction characteristics and to determine suitability;
3. Fabricating clothing and personal protection equipment prototypes to test patterns prior to computerized grading/sizing;
4. Supporting evaluation of vendors and manufacturers clothing and personal protection equipment samples for compliance with specified measurements and construction methods; and
5. Supporting maintenance of specialized equipment used in the construction/fabrication of clothing and personal protection equipment.

12.13 BADGES/INSIGNIA/CEREMONIAL ACCOUTREMENTS TECHNOLOGIST

The required services may include, but are not limited to the following:

1. Preparing new clothing technical specifications, manufacturing data, purchase descriptions, production drawings, sealed samples and revising existing specifications, drawings, and evaluation of existing sealed samples;
2. Supporting the design and development of badges/insignia/ceremonial accoutrements;
3. Reviewing and analysing vendors and manufacturers badges, insignia and ceremonial accoutrements samples and testing results for compliance to given specifications and testing standards;
4. Establishing badges, insignia ceremonial accoutrements technical databases for materiel and information management;
5. Preparing Statements of Work for the design and purchase of prototypes and (or) samples;
6. Investigating Unsatisfactory Condition Reports, Material Authorization Change Requests, Design Change/Deviation Requests, Requests for Waiver, Technical Failure Reports, etc. to determine legitimacy and make recommendations for reply;
7. Supporting badges, insignia and ceremonial accoutrements reviews and recommending disposal or reassignment;
8. Preparing badges/insignia/ceremonial accoutrements displays to meet requirements for conferences, exhibitions, briefings and meetings;
9. Converting existing engineering drawings to new drawings utilizing commercial software applications for incorporation into specifications;
10. Supporting preparation or revision badges, insignia and ceremonial accoutrements information manuals and instructor manuals;
11. Investigating designs, materials and processes and recommending solutions to identified technical problems through literature searches and in consultation with industry and technical experts;
12. Evaluating prototypes and commercial products to determine suitability;
13. Supporting preparing plans for development and (or) assessment of new requirements or items including laboratory, engineering, and field trial protocols;
14. Evaluating badges, insignia and ceremonial accoutrements and insignia against technical specifications;
15. Supporting compliance of environmental regulations regarding use and disposal of badges, insignia and ceremonial accoutrements; and
16. Researching and monitoring emerging technologies and (or) products and (or) industrial capabilities for badges, insignia and ceremonial accoutrements.

12.14 INTEGRATED LOGISTICS SUPPORT (ILS) SPECIALIST

The required services may include, but are not limited to the following:

1. preparing correspondence and documents related to the acceptance/rejection of deliverables;
2. preparing statements of work and item descriptions for inclusion into requests for proposals;
3. providing feedback and (or) data clarification to the project management authority;
4. conducting evaluations of ILS bid proposals and provide feedback and recommendations to the project management authority;
5. Working with engineering and procurement to ensure ILS efforts are integrated with other program activities;
6. Planning and implementing logistic support elements which include: maintenance tasks, spares, training, technical publications, translation and facilities; and
7. Preparing and presenting to business units and operational divisions which cover issues of maintenance and supply support.

12.15 TECHNICAL CLERK

The required services may include, but are not limited to the following:

1. physically assembling complete or partial Technical Data Packages (TDPs) and identifying and actioning deficiencies in data packages of systems and equipment;
2. receiving, logging, taking custody of and acknowledging the receipt of TDPs which describe additions, modifications and/or deletions of technical data;
3. collecting, reviewing and updating configuration management data for input into the environmental configuration management information system;
4. modifying, validating and compiling technical data package lists, that will include:
 - a. technical publications;
 - b. specifications;
 - c. performance test sheets;
 - d. equipment and system data lists and drawings;
 - e. repair and overhaul specifications; and
 - f. other technical descriptors in accordance with Data Technical Descriptions (DTDs) and Data Item Descriptions (DIDs);
5. updating, validating and compiling technical data action notices;
6. reviewing documents, drawings and associated data for conformance to standards; and
7. formatting technical documents.

12.16 LIFE CYCLE MANAGEMENT SPECIALIST

The required services may include, but are not limited to the following:

1. conducting engineering studies and analysis to provide technical solutions to stated technical/logistic or operational requirements/problems including preparation of Engineering Changes (ECs);
2. defining standards and criteria related to equipment or systems maintenance;
3. preparing, modifying or updating specifications and drawings;
4. converting specifications and drawings to current standards or electronic formats;
5. preparing, modifying or updating Technical Instructions and Orders;
6. evaluating existing systems;
7. performing configuration management;
8. performing analysis of maintenance, repair and overhaul data;
9. investigating Unsatisfactory Condition Reports (UCRs) and Technical Failure Reports (TFRs);
10. preparing technical statements of requirement, draft specifications and purchase descriptions;
11. preparing data for initial provisioning and repair parts scaling;
12. reviewing the design, development, manufacture, installation and testing of prototype modifications;
13. preparing repair procedures, maintenance schedules and technical data;
14. preparing life-cycle cost estimates;
15. preparing support cost option analysis for systems and equipment;
16. planning, developing, implementing and administering a data management system;
17. performing independent verification and validation services for equipment engineering projects;
18. providing studies and recommendations on application software development standards, methodologies and tools appropriate for the development and maintenance of related software systems;
19. reviewing Repairable Arising Control sheets (RAC) for technical content and making recommendations;
20. reviewing and updating material/equipment specifications; and
21. reviewing disposal certificates, making appropriate recommendations, updating maintenance handbooks, parts list and operating manuals.