

**RETURN BIDS TO:**  
**RETOURNER LES SOUMISSIONS À:**  
Réception des soumissions - TPSGC / Bid  
Receiving - PWGSC  
1550, Avenue d'Estimauville  
1550, D'Estimauville Avenue  
Québec  
Québec  
G1J 0C7

**REQUEST FOR PROPOSAL**  
**DEMANDE DE PROPOSITION**

**Proposal To: Public Works and Government  
Services Canada**

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

**Proposition aux: Travaux Publics et Services  
Gouvernementaux Canada**

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

**Comments - Commentaires**

<b>Title - Sujet</b> Environnement de TESTS	
<b>Solicitation No. - N° de l'invitation</b> W7701-145788/A	<b>Date</b> 2014-07-21
<b>Client Reference No. - N° de référence du client</b> W7701-14-5788	
<b>GETS Reference No. - N° de référence de SEAG</b> PW-\$QCL-028-16020	
<b>File No. - N° de dossier</b> QCL-3-36192 (028)	<b>CCC No./N° CCC - FMS No./N° VME</b>
<b>Solicitation Closes - L'invitation prend fin</b> <b>at - à 02:00 PM</b> <b>on - le 2014-08-08</b>	
<b>Time Zone</b> <b>Fuseau horaire</b> Heure Avancée de l'Est HAE	
<b>F.O.B. - F.A.B.</b> <b>Plant-Usine:</b> <input type="checkbox"/> <b>Destination:</b> <input checked="" type="checkbox"/> <b>Other-Autre:</b> <input type="checkbox"/>	
<b>Address Enquiries to: - Adresser toutes questions à:</b> Roy, Josée	<b>Buyer Id - Id de l'acheteur</b> qcl028
<b>Telephone No. - N° de téléphone</b> (418) 649-2932 ( )	<b>FAX No. - N° de FAX</b> (418) 648-2209
<b>Destination - of Goods, Services, and Construction:</b> <b>Destination - des biens, services et construction:</b> R & D POUR LA DÉFENSE CANADA - VALCARTIER BATIMENT 53 2459 BOUL. PIE XI NORD QUÉBEC Québec G3J1X5 Canada	

**Instructions: See Herein**

**Instructions: Voir aux présentes**

**Vendor/Firm Name and Address**

**Raison sociale et adresse du  
fournisseur/de l'entrepreneur**

**Issuing Office - Bureau de distribution**

TPSGC/PWGSC  
601-1550, Avenue d'Estimauville  
Québec  
Québec  
G1J 0C7

<b>Delivery Required - Livraison exigée</b> See Herein	<b>Delivery Offered - Livraison proposée</b>
<b>Vendor/Firm Name and Address</b> <b>Raison sociale et adresse du fournisseur/de l'entrepreneur</b>	
<b>Telephone No. - N° de téléphone</b> <b>Facsimile No. - N° de télécopieur</b>	
<b>Name and title of person authorized to sign on behalf of Vendor/Firm</b> <b>(type or print)</b> <b>Nom et titre de la personne autorisée à signer au nom du fournisseur/ de l'entrepreneur (taper ou écrire en caractères d'imprimerie)</b>	
<b>Signature</b>	<b>Date</b>

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## PART 1 - GENERAL INFORMATION

### 1. Introduction

The bid solicitation document is divided into seven parts plus attachments and annexes as follows:

- Part 1 General Information: provides a general description of the requirement;
- Part 2 Bidder Instructions: provides the instructions, clauses and conditions applicable to the bid solicitation;
- Part 3 Bid Preparation Instructions: provides bidders with instructions on how to prepare their bid;
- Part 4 Evaluation Procedures and Basis of Selection: indicates how the evaluation will be conducted, the evaluation criteria that must be addressed in the bid, and the basis of selection;
- Part 5 Certifications: includes the certifications to be provided;
- Part 6 Security and Financial Requirements: includes specific requirements that must be addressed by bidders; and
- Part 7 Resulting Contract Clauses: includes the clauses and conditions that will apply to any resulting contract.

The Annexes include the Statement of Work, the Basis of Payment, the Contractor Disclosure of Foreground Information and the DND 626, Task Authorization Form

### 2. Summary

#### (a) Title

Testing and Validation Environment (TVE) for the Cyber Domain

#### (b) Tasks

The mandate of the DRDC Valcartier MCCS section's SPC group is to study and advance the live cyber defence (cyber surveillance and cyber protection) capabilities of DND's computing infrastructure in order to counter malicious activities that may occur on that infrastructure during military operations. It is within this research framework that the group develops live cyber surveillance technologies that can detect and localize anomalies that may arise on DND's computing infrastructure, and cyber protection technologies that can counter these anomalies.

The cyber defence technology prototypes are designed and tested through unclassified DRDC research projects involving academia and industry. An unclassified environment reproducing certain critical military system functionalities and allowing for testing and validation is required to bring DRDC's cyber defence research projects to fruition.

#### (c) Client department:

The organization for which the services are to be rendered is Defence Research and Development Canada - Valcartier (DRDC - Valcartier).

#### (d) Period of the Contract:

The period of the contract is from the date of the contract to March 31, 2019 inclusive.

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**(e) Key information**

- i. Estimated amount of available funding for this Contract : \$850,000.00, Applicable Taxes extra (130 000\$, Applicable Taxes extra for the firm part and 720 000\$, Applicable Taxes extra for the part involving task authorizations)
- ii. Defence Research and Development Canada - Valcartier has determined that any intellectual property rights arising from the performance of the Work under the resulting contract will belong to Contractor.
- iii. Bidders must provide a list of names, or other related information as needed, pursuant to section 01 of Standard Instructions 2003.
- iv. For services requirements, Bidders in receipt of a pension or a lump sum payment must provide the required information as detailed in article 3 of Part 2 of the bid solicitation.
- v. The requirement is limited to Canadian services.
- vi. Work site: The Work must be done on site at DRDC – Valcartier..
- vii. The requirement is subject to the Agreement on Internal Trade (AIT).
- viii. There is a security requirement associated with this requirement. For additional information, consult Part 6 - Security, Financial and Other Requirements, and Part 7 - Resulting Contract Clauses. Bidders should consult the "Security Requirements for PWGSC Bid Solicitations - 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 website.

**3. Debriefings**

Bidders may request a debriefing on the results of the bid solicitation process. Bidders should make the request to the Contracting Authority within **15 working days** of receipt of the results of the bid solicitation process. The debriefing may be in writing, by telephone or in person.

## PART 2 - BIDDER INSTRUCTIONS

### 1. Standard Instructions, Clauses and Conditions

All instructions, clauses and conditions identified in the bid solicitation by number, date and title are set out in the *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.

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

The 2003 (2014-06-26) Standard Instructions - Goods or Services - Competitive Requirements, are incorporated by reference into and form part of the bid solicitation.

Subsection 5.4 of 2003, Standard Instructions - Goods or Services - Competitive Requirements, is amended as follows:

Delete: sixty (60) days

Insert: one hundred twenty (120) days

#### 1.1 SACC Manual Clauses

A7035T (2007-05-25), List of Proposed Subcontractors

### 2. Submission of Bids

Bids must be submitted only to Public Works and Government Services Canada (PWGSC) Bid Receiving Unit by the date and time indicated on **page 1** of the bid solicitation at the following place:

Public Works and Government Services Canada  
1550, d'Estimauville Avenue  
Quebec (QC), G1J 0C7

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

### 3. Former Public Servant - Competitive - Bid

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

#### Definitions

For the purposes of this clause, "former public servant" is any former member of a department as defined in the [Financial Administration Act](#), R.S., 1985, c. F-11, a former member of the Canadian Armed Forces or a former member of the Royal Canadian Mounted Police. A former public servant may be:

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

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

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

#### Former Public Servant in Receipt of a Pension

As per the above definitions, is the Bidder a FPS in receipt of a pension?

Yes ( )

No ( )

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

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

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

#### Work Force Adjustment Directive

Is the Bidder a FPS who received a lump sum payment pursuant to the terms of the Work Force Adjustment Directive?

Yes ( )

No ( )

If so, the Bidder must provide the following information:

- a. name of former public servant;
- b. conditions of the lump sum payment incentive;

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- c. date of termination of employment;
- d. amount of lump sum payment;
- e. rate of pay on which lump sum payment is based;
- f. period of lump sum payment including start date, end date and number of weeks;
- g. number and amount (professional fees) of other contracts subject to the restrictions of a work force adjustment program.

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

#### **4. Enquiries - Bid Solicitation**

All enquiries must be submitted in writing to the Contracting Authority preferably by e-mail at the following address: [josee.roy@tpsgc-pwgsc.gc.ca](mailto:josee.roy@tpsgc-pwgsc.gc.ca), no later than **eight (8) calendar days** before the bid closing date. Enquiries received after that time may not be answered.

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

#### **5. Applicable Laws**

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

Bidders may, at their discretion, substitute the applicable laws of a Canadian province or territory of their choice without affecting the validity of their bid, 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 bidders.

## PART 3 - BID PREPARATION INSTRUCTIONS

### 1. Bid Preparation Instructions

Canada requests that bidders provide their bid in separately bound sections as follows:

Section I : Technical Bid (4 hard copies and 4 soft copies on CD or DVD)

Section II : Financial Bid (1 hard copy)

Section III : Certifications ( 1 hard copy)

If there is a discrepancy between the wording of the soft copy and the hard copy, the wording of the hard copy will have priority over the wording of the soft copy.

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

Canada requests that bidders follow the format instructions described below in the preparation of their bid:

- (a) use 8.5 x 11 inch (216 mm x 279 mm) paper; and
- (b) use a numbering system that corresponds to the bid solicitation.

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, bidders 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, print double sided/duplex, using staples or clips instead of cerlox, duotangs or binders.

#### 1.1 Section I : Technical Bid

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

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

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(b) The technical bid consists of the following:

- (i) All the information required to demonstrate its conformity with the Mandatory and Point Rated Technical Criteria described in Attachment 2 - Mandatory and Point Rated Technical Criteria.

## 1.2 Section II : Financial Bid

1.2.1 Bidders must submit their financial bid in accordance with the following:

a. The information must be provided in accordance with the **Financial Bid Presentation Sheet in Attachment 1**

b. A firm all-inclusive hourly rate (including profit and overhead) for each labour category listed in **Attachment 1 - Financial Bid Presentation Sheet**, for each year of the contract period.

c. No travel and living expenses will be paid for services provided within the Quebec Region (including DRDC Valcartier facilities.) Further, Canada will not accept any travel and living expenses for travel between the contractor's place of business and the Quebec region (including DRDC Valcartier facilities). All these cost must be included in the firm all-inclusive hourly rates.

d. Prices must be in Canadian dollars, Applicable Taxes excluded FOB destination, Canadian customs duties and excise taxes included.

## 1.3 Section III: Certifications

Bidders must submit the certifications required under **Part 5**.

### 1.3.1 Additional information precedent to Contract Award

Bidders must provide a list of names, or other related information as needed, pursuant to section 01 of Standard Instructions 2003.

For services requirements, Bidders in receipt of a pension or a lump sum payment must provide the required information as detailed in article 3 of Part 2 of the bid solicitation.

Canada requests that bidders provide the following information:

#### **Administrative representative :**

Name : \_\_\_\_\_

Telephone : \_\_\_\_\_

Facsimile : \_\_\_\_\_

Email : \_\_\_\_\_

#### **Technical representative :**

Name : \_\_\_\_\_

Telephone : \_\_\_\_\_

Facsimile : \_\_\_\_\_

Email : \_\_\_\_\_

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

### **1. Evaluation Procedures**

- (a) Bids will be assessed in accordance with the entire requirement of the bid solicitation including the technical and financial evaluation criteria.
- (b) An evaluation team composed of representatives of Canada will evaluate the bids.

#### **1.1 Technical Evaluation**

Except where expressly provided otherwise, the experience described in the bid must be the experience of the Bidder itself (which includes the experience of any companies that formed the Bidder by way of a merger but does not include any experience acquired through a purchase of assets or an assignment of contract). The experience of the Bidder's affiliates (i.e. parent, subsidiary or sister corporations), subcontractors, or suppliers will not be considered.

##### **1.1.1 Mandatory Technical Criteria**

Refer to **Attachment 2**, Mandatory and Point Rated Technical Criteria.

##### **1.1.2 Point Rated Technical Criteria**

Refer to **Attachment 2**, Mandatory and Point Rated Technical Criteria.

#### **1.2 Financial Evaluation**

##### **1.2.1 Mandatory Financial Criteria**

Bidders must submit their financial bid in accordance with **1.2 Section II: Financial Bid of the Part 3** - Bid preparation instructions.

##### **1.2.2 Evaluation of Price**

The price of the bid will be evaluated in Canadian dollars, applicable taxes excluded, FOB destination, Canadian customs duties and excise taxes included.

For evaluation purposes only, the price of the bid will be determined as detailed in **Attachment 3, Evaluation of Price**.

### **2. Basis of Selection**

#### **2.1 Basis of Selection - Lowest Evaluated Price Per Point**

- 1. To be declared responsive, a bid must:
  - (a) comply with all the requirements of the bid solicitation;
  - (b) meet all mandatory technical evaluation criteria;
  - (c) obtain the required minimum points for each criterion and each group of criteria with a pass mark; and
  - (d) obtain the required minimum points overall for the technical evaluation criteria which are subject to point rating.

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Bids not meeting (a) or (b) or (c) or (d) will be declared non-responsive. Neither the responsive bid that receives the highest number of points nor the one that proposed the lowest price will necessarily be accepted. The responsive bid with the lowest evaluated price per point will be recommended for award of a contract. The evaluated price per point will be determined by dividing the evaluated price of the bid by the number of points obtained for the point rated technical evaluation criteria.

In the event that two or more responsive bids have the same lowest evaluated price per point, the responsive bid which obtained the highest number of points overall for the point rated technical evaluation criteria will be recommended for award of a contract.

## PART 5 - CERTIFICATIONS

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

The certifications provided by bidders to Canada are subject to verification by Canada at all times. Canada will declare a bid non-responsive, or will declare a contractor in default in carrying out any of its obligations under the Contract, if any certification made by the Bidder is found to be untrue whether made knowingly or unknowingly, during the bid evaluation period or during the contract period.

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

### 1. Certifications Required Precedent to Contract Award

#### 1.1 Integrity Provisions - Associated Information

By submitting a bid, the Bidder certifies that the Bidder and its Affiliates are in compliance with the provisions as stated in Section 01 Integrity Provisions - Bid of Standard Instructions 2003. The associated information required within the Integrity Provisions will assist Canada in confirming that the certifications are true.

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

By submitting a bid, the Bidder certifies that the Bidder, and any of the Bidder's members if the Bidder is a Joint Venture, is not named on the Federal Contractors Program (FCP) for employment equity "[FCP Limited Eligibility to Bid](http://www.labour.gc.ca/eng/standards_equity/eq/emp/fcp/list/inelig.shtml)" list ([http://www.labour.gc.ca/eng/standards\\_equity/eq/emp/fcp/list/inelig.shtml](http://www.labour.gc.ca/eng/standards_equity/eq/emp/fcp/list/inelig.shtml)) available from [Employment and Social Development Canada \(ESDC\) - Labour's website](#).

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

#### 1.3 Canadian Content Certification

This procurement is limited to Canadian services.

The Bidder certifies that:

( ) the service(s) offered is (are) a Canadian service as defined in paragraph 2 of clause A3050T.

### 1.3.1 SACC Manual clause A3050T (2010-01-11), Canadian Content Definition

## 1.4 Status and Availability of Resources

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

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

## 1.5 Education and Experience

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

## 1.6 Language Capability

The Bidder certifies that it has the language capability required to perform the Work, as stipulated in the Statement of Work.

## **PART 6 - SECURITY, FINANCIAL AND OTHER REQUIREMENTS**

### **1. Security Requirement**

1. Before award of a contract, the following conditions must be met:
  - (a) the Bidder must hold a valid organization security clearance as indicated in Part 7 - Resulting Contract Clauses;
  - (b) the Bidder'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 7 - Resulting Contract Clauses;
  - (c) the Bidder must provide the name of all individuals who will require access to classified or protected information, assets or sensitive work sites.
2. Bidders are reminded to obtain the required security clearance promptly. Any delay in the award of a contract to allow the successful bidder to obtain the required clearance will be at the entire discretion of the Contracting Authority.
3. For additional information on security requirements, bidders should consult the "Security Requirements for PWGSC Bid Solicitations - 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 website.

### **2. Financial Capability**

SACC Manual clause A9033T (2012-07-16), Financial Capability

## PART 7 - RESULTING CONTRACT CLAUSES

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

### 1. Statement of Work

#### **For the firm portion:**

The Contractor must perform the Work in accordance with the Statement of Work at Annex A and the Contractor's technical bid entitled \_\_\_\_\_, dated \_\_\_\_\_. (to be completed by Canada at Contract award)

#### **For the portion involving task authorizations:**

The Contractor must perform the Work in accordance with the Statement of Work at Annex A and the Contractor's technical bid entitled \_\_\_\_\_, dated \_\_\_\_\_, as and when requested by Canada during the period of the Contract. **(to be completed by Canada at contract award)**

An obligation for any Work will come into force only when a Task Authorization (TA) is approved and issued in accordance with the clause entitled "Task Authorization Process".

### 1.2 Task Authorization

The Work or a portion of the Work to be performed under the Contract will be on an "as and when requested basis" using a Task Authorization (TA). The Work described in the TA must be in accordance with the scope of the Contract.

#### 1.2.1 Task Authorization Process

1. The DND Procurement Authority will provide the Contractor with a description of the task using the DND 626, Task Authorization Form specified in Annex E.
2. The Task Authorization (TA) will contain the details of the activities to be performed, a description of the deliverables, and a schedule indicating completion dates for the major activities or submission dates for the deliverables. The TA will also include the applicable basis (bases) and methods of payment as specified in the Contract.
3. The Contractor must provide the DND Procurement Authority, **within five (5) calendar days** of its receipt, the proposed total estimated cost for performing the task and a breakdown of that cost, established in accordance with the Basis of Payment specified in the Contract. The Contractor will not be paid for preparing or providing its response or for providing other information required to prepare and issue the TA.

When it is required by DND Procurement Authority, the Contractor must also provide a technical proposal that must include one or many of the following items :

- (a) a description of the understanding of objectives and scope of the work,
- (b) a description of the approach and methodology that will be put forward to perform the work,
- (c) a description of the anticipated deliverables,

- (d) an estimation of the level of success anticipated for the activities to be performed,
  - (e) the deviations proposed to the requirements,
  - (f) an identification of the major risks and a mitigation plan for each of them,
  - (g) a complete work schedule and a prioritization of the activities to be performed.
4. The Contractor must not commence work until a TA authorized by the DND Procurement Authority has been received by the Contractor. The Contractor acknowledges that any work performed before a TA has been received will be done at the Contractor's own risk.

### 1.2.2 Task Authorization Limit

The DND Procurement Authority may authorize individual task authorizations up to a limit of **\$100 000.00**, Applicable Taxes included, inclusive of any revisions.

Any task authorization to be issued in excess of these limits must be authorized by the Contracting Authority before issuance.

### 1.2.3 Minimum Work Guarantee - All the Work - Task Authorizations

1. In this clause,
- "Maximum Contract Value" means the amount specified in the "Limitation of Expenditure" clause set out in the Contract; and
- "Minimum Contract Value" means 10% of the Maximum Contract Value**
2. Canada's obligation under the Contract is to request Work in the amount of the Minimum Contract Value or, at Canada's option, to pay the Contractor at the end of the Contract in accordance with paragraph 3. In consideration of such obligation, the Contractor agrees to stand in readiness throughout the Contract period to perform the Work described in the Contract. Canada's maximum liability for work performed under the Contract must not exceed the Maximum Contract Value, unless an increase is authorized in writing by the Contracting Authority.
3. In the event that Canada does not request work in the amount of the Minimum Contract Value during the period of the Contract, Canada must pay the Contractor the difference between the Minimum Contract Value and the total cost of the Work requested.
4. Canada will have no obligation to the Contractor under this clause if Canada terminates the Contract in whole or in part for default.

### 1.2.4 Task Authorization - Department of National Defence

The administration of the Task Authorization process will be carried out by **The Procurement and Payment group at Defence Research and Development Canada - Valcartier, represented by the DND Procurement Authority**. This process includes monitoring, controlling and reporting on expenditures of the contract with task authorizations to the Contracting Authority.

### 1.3 Disclosure Certification

On completion of the Work, the Contractor must submit to the Technical Authority and to the Contracting Authority a copy of the Contractor Disclosure of Foreground Information attached as **Annex C** stating that all applicable disclosures were submitted.

## 2. 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.

### 2.1 General Conditions

2040 (2014-06-26), General Conditions - Research & Development, apply to and form part of the Contract.

### 2.2 Supplemental General Conditions

The following supplemental general conditions apply to and form part of the Contract:

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

## 3. Security Requirement

3.1 The following security requirement (SRCL and related clauses) applies and form part of the Contract.

### **SECURITY REQUIREMENT FOR CANADIAN SUPPLIER: PWGSC FILE No. W7701-145788**

1. The Contractor must, at all times during the performance of the Contract, 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 sensitive work site(s) must **EACH** hold a valid **RELIABILITY STATUS**, granted or approved by CISD/PWGSC.
3. Subcontracts which contain security requirements are **NOT** to be awarded without the prior written permission of CISD/PWGSC.
4. The Contractor must comply with the provisions of the:
  - a) Security Requirements Check List and security guide (if applicable), attached at Annex D;
  - b) Industrial Security Manual (Latest Edition).

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File No. - N° du dossier  
QCN-3-336192

Buyer ID - Id de l'acheteur  
qcl028  
CCC No./N° CCC - FMS No./N° VME

#### 4. Term of Contract

##### 4.1 Period of Contract

The Work is to be performed from date of Contract to March 31<sup>st</sup>, 2019.

#### 5. Authorities

##### 5.1 Contracting Authority

The Contracting Authority for the Contract is:

Josée Roy  
Public Works and Government Services Canada  
601-1550 D'Estimauville  
Québec, QC.  
G1J 0C7

Telephone: 418-649-2932  
Facsimile: 418-648-2209  
E-mail address: [josee.roy@tps-gc-pwgsc.gc.ca](mailto:josee.roy@tps-gc-pwgsc.gc.ca)

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

##### 5.2 Technical Authority *(to be completed by Canada at contract award)*

The Technical Authority for the Contract is:

Name : \_\_\_\_\_  
Title : \_\_\_\_\_  
Organization : \_\_\_\_\_  
Address : \_\_\_\_\_  
  
Telephone: \_\_\_\_-\_\_\_\_-\_\_\_\_\_  
Facsimile: \_\_\_\_-\_\_\_\_-\_\_\_\_\_  
E-mail address: \_\_\_\_\_

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

##### 5.3 Contractor's Representative *(to be completed by Canada at contract award)*

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**Administrative representative :**

Name : \_\_\_\_\_  
Telephone : \_\_\_\_\_  
Facsimile : \_\_\_\_\_  
Email : \_\_\_\_\_

**Technical representative :**

Name : \_\_\_\_\_  
Telephone : \_\_\_\_\_  
Facsimile : \_\_\_\_\_  
Email : \_\_\_\_\_

**5.4 Procurement Authority (to be completed by Canada at contract award)**

The Procurement Authority for the Contract is:

Name : \_\_\_\_\_  
Title : \_\_\_\_\_  
Organization : \_\_\_\_\_  
Address : \_\_\_\_\_  
Telephone: \_\_\_\_\_  
Facsimile: \_\_\_\_\_  
E-mail: \_\_\_\_\_.

The Procurement Authority is the representative of the department or agency for whom the Work is being carried out under the Contract. The Procurement Authority is responsible for the implementation of tools and processes required for the administration of the Contract. The Contractor may discuss administrative matters identified in the Contract with the Procurement Authority however the Procurement Authority has no authority to authorize changes to the scope of the Work. Changes to the scope of Work can only be made through a contract amendment issued by the Contracting Authority.

**6. Proactive Disclosure of Contracts with Former Public Servants**

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

**7. Payment**

**7.1 Basis of Payment**

**7.1.1 For the firm portion of the Work (task 1):**

The Contractor will be reimbursed for the costs reasonably and properly incurred in the performance of the Work, as determined in accordance with the Basis of Payment in Annex B, to a limitation of expenditure of \$\_\_\_\_\_ (the amount will be inserted at contract award). Customs duties are included and Applicable Taxes are extra.

**7.1.2 For the portion of the Work involving task authorizations process (tasks 2.1 to 2.16):**

**(i) Professional Services provided under a Task Authorization subject to a Firm Price:**

In consideration of the Contractor satisfactorily completing all of its obligations under the authorized Task Authorization (TA), the Contractor will be paid a firm

price in accordance with the basis of payment, in Annex B, as specified in the authorized TA. Customs duties are included and Applicable Taxes are extra.

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

**(ii) Professional Services provided under a Task Authorization subject to a Ceiling Price :**

The Contractor will be reimbursed its costs reasonably and properly incurred in the performance of the Work, plus a profit, as determined in accordance with the Basis of Payment in Annex B, to the ceiling price specified in the approved TA. Customs duties are included and Applicable Taxes are extra.

The ceiling price is subject to downward adjustment so as not to exceed the actual costs reasonably incurred in the performance of the Work and computed in accordance with the Basis of Payment.

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

**(iii) Professional Services provided under a Task Authorization subject to a Limitation of Expenditure :**

The Contractor will be reimbursed for the costs reasonably and properly incurred in the performance of the Work specified in the authorized Task Authorization (TA), as determined in accordance with the Basis of Payment in Annex B, to the limitation of expenditure specified in the authorized TA.

Canada's liability to the Contractor under the authorized TA must not exceed the limitation of expenditure specified in the authorized TA. Customs duties are included and Applicable Taxes are extra.

No increase in the liability of Canada or in the price of the Work specified in the authorized TA resulting from any design changes, modifications or interpretations of the Work will be authorized or paid to the Contractor unless these design changes, modifications or interpretations have been authorized, in writing, by the Contracting Authority before their incorporation into the Work.

**(iv) Travel and Living Expenses :**

There will be no travel time or travel and living expenses payable for services rendered within 50 kilometres from Defence Research and Development Canada - Valcartier, located at 2459 de la Bravoure Road, Quebec City, Quebec.

For services rendered further than 50 kilometres from Defence Research and Development Canada - Valcartier, the Contractor will be paid its actual travel time in accordance with the hourly rates detailed in Annex B, Basis of Payment.

The Contractor will be reimbursed for the authorized travel and living expenses reasonably and properly incurred in the performance of the Work, at cost, without any allowance for overhead or profit, in accordance with the meal, private vehicle and incidental expense allowances specified in Appendices B, C and D of the

Travel Directive, and with the other provisions of the directive referring to "travellers", rather than those referring to "employees".

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

## **7.2 Limitation of Expenditure - Cumulative Total of all Task Authorizations**

1. Canada's total liability to the Contractor under the Contract for all authorized Task Authorizations (TAs), inclusive of any revisions, must not exceed the sum of **\$850,000.00**. Customs duties are included and Applicable Taxes are extra.
2. No increase in the total liability of Canada will be authorized or paid to the Contractor unless an increase has been approved, in writing, by the Contracting Authority.
3. The Contractor must notify the Contracting Authority in writing as to the adequacy of this sum:
  - (a) when it is 75 percent committed, or
  - (b) four (4) months before the contract expiry date, or
  - (c) as soon as the Contractor considers that the sum is inadequate for the completion of the Work required in all authorized TAs, inclusive of any revisions, whichever comes first.
4. If the notification is for inadequate contract funds, the Contractor must provide to the Contracting Authority, a written estimate for the additional funds required. Provision of such information by the Contractor does not increase Canada's liability.

## **7.3 Method of Payment**

**7.3.1** Payments will be made not more frequently than once a month.

### **7.3.2 For the firm portion of the Work (task 1):**

#### **Progress Payments**

1. Canada will make progress payments in accordance with the payment provisions of the Contract, no more than once a month, for cost incurred in the performance of the Work up to 90 percent of the amount claimed and approved by Canada if:
  - (a) an accurate and complete claim for payment using form PWGSC-TPSGC 1111(<http://www.tpsgc-pwgsc.gc.ca/app-acq/forms/documents/1111.pdf>), Claim for Progress Payment, and any other document required by the Contract have been submitted in accordance with the invoicing instructions provided in the Contract;
  - (b) the amount claimed is in accordance with the Basis of payment;
  - (c) the total amount for all progress payments paid by Canada does not exceed 90 percent of the total amount to be paid under the Contract;
  - (d) all certificates appearing on form PWGSC-TPSGC 1111 have been signed by the respective authorized representatives.

2. The balance of the amount payable will be paid in accordance with the payment provisions of the Contract upon completion and delivery of all work required under the Contract if the Work has been accepted by Canada and a final claim for the payment is submitted.

3. Progress payments are interim payments only. Canada may conduct a government audit and interim time and cost verifications and reserves the right to make adjustments to the Contract from time to time during the performance of the Work. Any overpayment resulting from progress payments or otherwise must be refunded promptly to Canada.

**7.3.3 For the portion of the Work involving task authorizations process (tasks 2.1 to 2.16):**

Depending on the method of payment specified in the applicable TA, one of the following methods of payment clauses will apply.

**7.3.3.1 Single Payment** (For a Firm Price TA, for a TA subject to a Limitation of Expenditure or a Ceiling Price)

Canada will pay the Contractor upon completion and delivery of the Work associated with the Task Authorization in accordance with the payment provisions of the Contract if:

- (a) an accurate and complete claim for payment using PWGSC-TPSGC 1111, Claim for Progress Payment, and any other documents required by the Contract have been submitted in accordance with the invoicing instructions provided in the Contract;
- (b) all such documents have been verified by Canada;
- (c) the Work delivered has been accepted by Canada.

**7.3.3.2 Milestone Payments** (For a Firm Price TA)

For any task authorization issued under the Contract that includes a schedule of milestone payments to be made once specific portions of the work have been completed and accepted, Canada will make milestone payments in accordance with the Schedule of Milestones detailed in the Task Authorization and the payment provisions of the Contract if:

- (a) an accurate and complete claim for milestone payment using PWGSC-TPSGC 1111, Claim for Progress Payment, and any other document required by the Contract have been submitted in accordance with the invoicing instructions provided in the Contract;
- (b) all the certificates appearing on form PWGSC-TPSGC 1111 have been signed by the respective authorized representatives;
- (c) all work associated with the milestone and as applicable any deliverable required has been completed and accepted by Canada.

### **7.3.3.3 Progress Payments** (For a TA subject to a Limitation of Expenditure or a Ceiling Price)

- (a) Canada will make progress payments in accordance with the payment provisions of the Task Authorization and the Contract, no more than once a month, for costs incurred in the performance of the Work up to 90 percent of the amount claimed and approved by Canada if:
  - (i) an accurate and complete claim for payment using form PWGSC-TPSGC 1111, Claim for Progress Payment, and any other document required by the Contract have been submitted in accordance with the invoicing instructions provided in the Contract;
  - (ii) the amount claimed is in accordance with the Basis of Payment and the Task Authorization;
  - (iii) the total amount for all progress payments paid by Canada does not exceed 90 percent of the total amount to be paid under the Task Authorization.
  - (iv) all certificates appearing on form PWGSC-TPSGC 1111 have been signed by the respective authorized representatives.
- (b) The balance of the amount payable will be paid in accordance with the payment provisions of the Task Authorization and the Contract upon completion and delivery of all work required under the Task Authorization if the Work has been accepted by Canada and a final claim for the payment is submitted.
- (c) Progress payments are interim payments only. Canada may conduct a government audit and interim time and cost verifications and reserves the right to make adjustments to the Contract from time to time during the performance of the Work. Any overpayment resulting from progress payments or otherwise must be refunded promptly to Canada.

## **7.4 SACC Manual Clauses**

A9117C (2007-11-30), T1204 - Direct Request by Customer Department  
C0305C (2014-06-26), Cost Submission - Limitation of Expenditure or Ceiling Price

## **7.5 Discretionary Audit**

SACC Manual Clause C0705C (2010-01-11), Discretionary Audit

## **8. Invoicing Instructions**

1. The Contractor must submit a claim for payment using form PWGSC-TPSGC 1111. Form PWGSC-TPSGC 1111 is available at the following Website <http://www.tpsgc-pwgsc.gc.ca/app-acq/forms/formulaires-forms-eng.html>

Each claim must show:

- (a) all information required on form PWGSC-TPSGC 1111;

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- (b) all applicable information detailed under the section entitled "Invoice Submission" of the general conditions;
- (c) the Task Authorization (TA) number, as applicable;
- (d) the description of the milestone invoiced, as applicable.

2. For the firm part of the Work as for TAs subject to a Limitation of Expenditure or a Ceiling Price, each invoice must be supported by :

- (a) a list of all expenses, in accordance with the TA;
- (b) a copy of time sheets to support the time claimed;
- (c) a copy of the invoices, receipts, vouchers for all direct expenses, travel and living expenses;
- (d) a copy of the monthly progress report.

3. Applicable Taxes must be calculated on the total amount of the claim before the holdback is applied. At the time the holdback is claimed, there will be no Applicable Taxes payable as it was claimed and payable under the previous claims for progress payments.

4. The Contractor must prepare and certify one original and two (2) copies of the claim on form PWGSC-TPSGC 1111, and forward it to the Contracting Authority for certification.

**ATTN: \_\_\_\_\_ (to be completed at Contract award)**  
Public Works and Government Services Canada  
601-1550 D'Estimauville  
Québec, QC.  
G1J 0C7

The Contracting Authority will then forward the original and two (2) copies of the claim to the Technical Authority for appropriate certification after inspection and acceptance of the Work takes place, and onward submission to the Payment Office for the remaining certification and payment.

5. The Contractor must not submit claims until all work identified in the claim is completed.

## 9. Certifications

### 9.1 Compliance

The continuous compliance with the certifications provided by the Contractor in its bid and the ongoing cooperation in providing associated information are conditions of the Contract. Certifications are subject to verification by Canada during the entire period of the Contract. If the Contractor does not comply with any certification, fails to provide the associated information, 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.

## 10. Applicable Laws

The Contract must be interpreted and governed, and the relations between the parties determined, by the laws in force in \_\_\_\_\_ **(to be inserted at contract award)**.

## 11. Priority of Documents

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

- (a) the Articles of Agreement;
- (b) the supplemental general conditions 4002 (2010-08-16), Software Development or Modification Services
- (c) the general conditions 2040 (2014-06-26), General Conditions - Research & Development
- (d) Annex A, Statement of Work
- (e) Annex B, Basis of Payment;
- (f) Annex C, Contractor Disclosure of Foreground Information
- (g) Annex D, Security Requirements Check List
- (h) Annex E, DND 626, Task Authorization Form
- (i) the signed Task Authorizations (including all of its annexes, if any)
- (j) the Contractor's bid dated \_\_\_\_\_ **(to be completed at contract award)**.

## 12. Defence Contract

SACC Manual clause A9006C (2012-07-16), Defence Contract

## 13. Foreign Nationals (Canadian Contractor)

SACC Manual clause A2000C (2006-06-16), Foreign Nationals (Canadian Contractor)

## 14. Insurance

SACC Manual clause G1005C (2008-05-12), Insurance

## 15. Progress Reports

1. The Contractor must submit monthly reports, in electronic format, on the progress of the Work, to both the Technical Authority and the Contracting Authority.
2. The progress report must contain two parts:
  - (a) PART 1: The Contractor must answer the following three questions:
    - (i) Is the project on schedule?
    - (ii) Is the project within budget?
    - (iii) Is the project free of any areas of concern in which the assistance or guidance of Canada may be required?

Each negative response must be supported with an explanation.

- (b) PART 2: A narrative report, brief, yet sufficiently detailed to enable the Technical Authority to evaluate the progress of the Work, containing as a minimum:
  - (i) A description of the progress of each task and of the Work as a whole during the period of the report. Sufficient sketches, diagrams, photographs, etc., must be included, if necessary, to describe the progress accomplished.
  - (ii) An explanation of any variation from the work plan.

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(iii) A description of trips or conferences connected with the Contract during the period of the report.

(iv) A description of any major equipment purchased or constructed during the period of the report.

#### **16. Site Regulations**

The Contractor must comply with all standing orders or other regulations, instructions and directives in force on the site where the Work is performed.

#### **17. Identification Badge**

SACC Manual clause **A9065C** (2006-06-16), Identification Badge

## ATTACHMENT 1

### FINANCIAL BID PRESENTATION SHEET

#### FOR THE FIRM PORTION OF THE WORK (TASK 1)

1. **LABOR** : Firm all-inclusive rates (Applicable Taxes extra, including profit and overhead) as follows :

**Note to Bidders:**

- a. The Bidder must enter a firm all-inclusive hourly rate (including profit and overhead) for each Labour Category. The category Junior Developer is an optional category. If a resource is proposed, a firm hourly rate must be indicated.
- b. The rates must include the travel and living fees for the work performed at DRDC Valcartier facility, located at 2459, de la Bravoure Road, Québec, Québec, G3J 1X5 or the work performed in Quebec city region.
- c. The Bidder must submit the required number of resources required according to the mandatory criteria of Attachment 2.
- d. The proposed rates for a labor category must be equal to or lesser than the proposed rates for the same labor category for the portion of the Work realized on request using a Task Authorization.

Labor Categories	Firm all- inclusive hourly rates for the following periods:	
	Award to March 31, 2015	Estimated number of hours
<b>Project Manager</b> Name: _____	_____ \$ / hour	_____ \$ / hour
<b>Expert Linux Programmer Analyst (ELPA)</b> Name: _____	_____ \$ / hour	_____ \$ / hour
<b>Cyber Security Analyst (CSA)</b> Name: _____	_____ \$ / hour	_____ \$ / hour
<b>Linux Systems Configurator (LSC)</b> Name: _____	_____ \$ / hour	_____ \$ / hour
<b>Junior Developer (optional category for the firm part)</b> No resource is named for this category	_____ \$ / hour	_____ \$ / hour

Est.: \$ \_\_\_\_\_

2. **MATERIALS AND SUPPLIES and EQUIPMENT:**

Est.: \$ \_\_\_\_\_

**3. TRAVEL & LIVING:**

- (a) Canada will not accept any travel and living expenses incurred by the Contractor in the performance of the Work, for:
- (i) services provided within the Québec City Region (including Defence Research and Development Canada, Valcartier facility), and
  - (ii) any travel between the Contractor's place of business and the Québec City Region (including Defence Research and Development Canada, Valcartier facility).
- (b) For services to be provided outside the Québec City Region, the Contractor will be reimbursed its authorized travel and living expenses reasonably and properly incurred in the performance of the Work, at cost, without any allowance for profit and/or administrative overhead, in accordance with the meal, private vehicle and incidental expenses provided in Appendices B, C and D of the Treasury Board Travel Directive ([http://www.tbs-sct.gc.ca/pubs\\_pol/hrpubs/TBM\\_113/td-dv\\_e.asp](http://www.tbs-sct.gc.ca/pubs_pol/hrpubs/TBM_113/td-dv_e.asp)), and with the other provisions of the directive referring to "travellers", rather than those referring to "employees".
- (c) Canada will not accept any travel and living expenses incurred by the Contractor as a consequence of any relocation of personnel required to satisfy the terms of this Contract.
- (d) All travel must have prior authorization of the Technical Authority. All payments are subject to government audit.

Est.: \$ \_\_\_\_\_

**4. SUBCONTRACTS (except the resources proposed in section 1. Labor):**

Est.: \$ \_\_\_\_\_

**TOTAL ESTIMATED COST TO A LIMITATION OF EXPENDITURE: 130,000.00\$**  
**(Applicable Taxes extra)**

**FOR THE PORTION OF THE WORK REALIZED ON REQUEST USING A TASK AUTHORIZATION (TASKS 2.1 TO 2.16):**

1. **LABOUR** : Firm all-inclusive rates (Applicable Taxes extra, including profit and overhead) as follows :

**Note to Bidders:**

- a. The Bidder must enter a firm all-inclusive rate (including profit and overhead) for each Labour Category and for each year of the Contract.
- b. The rates must include the travel and living fees for the work performed at DRDC Valcartier facility, located at 2459, de la Bravoure Road, Québec, Québec, G3J 1X5 or the work performed in Quebec city region.
- c. The Bidder must submit the required number of resources required according to the mandatory criteria of Attachment 2.

Labor Category	Firm all-inclusive hourly rates for the following periods:				
	Award to March 31, 2015	April 1, 2015 to March 31, 2016	April 1, 2016 to March 31, 2017	April 1, 2017 to March 31, 2018	April 1, 2018 to March 31, 2019
<b>Project Manager</b> Name: _____	_____ \$ / hour	_____ \$ / hour	_____ \$ / hour	_____ \$ / hour	_____ \$ / hour
<b>Expert Linux Programmer Analyst (ELPA)</b> Name: _____	_____ \$ / hour	_____ \$ / hour	_____ \$ / hour	_____ \$ / hour	_____ \$ / hour
<b>Cyber Security Analyst (CSA)</b> Name: _____	_____ \$ / hour	_____ \$ / hour	_____ \$ / hour	_____ \$ / hour	_____ \$ / hour
<b>Linux Systems Configurator (LSC)</b> Name: _____	_____ \$ / hour	_____ \$ / hour	_____ \$ / hour	_____ \$ / hour	_____ \$ / hour
<b>Junior Developer</b> No resource is named for this category	_____ \$ / hour	_____ \$ / hour	_____ \$ / hour	_____ \$ / hour	_____ \$ / hour

2. **MATERIALS AND SUPPLIES and EQUIPMENT:** : at laid down cost without markup

3. **TRAVEL & LIVING:**

- (a) Canada will not accept any travel and living expenses incurred by the Contractor in the performance of the Work, for:
- (i) services provided within the Québec City Region (including Defence Research and Development Canada, Valcartier facility), and
  - (ii) any travel between the Contractor's place of business and the Québec City Region (including Defence Research and Development Canada, Valcartier facility).
- (b) For services to be provided outside the Québec City Region, the Contractor will be reimbursed its authorized travel and living expenses reasonably and properly incurred in the performance of the Work, at cost, without any allowance for profit and/or administrative overhead, in accordance with the meal, private vehicle and incidental expenses provided in Appendices B, C and D of the Treasury Board Travel Directive ([http://www.tbs-sct.gc.ca/pubs\\_pol/hrpubs/TBM\\_113/td-dv\\_e.asp](http://www.tbs-sct.gc.ca/pubs_pol/hrpubs/TBM_113/td-dv_e.asp)), and with the other provisions of the directive referring to "travellers", rather than those referring to "employees".
- (c) Canada will not accept any travel and living expenses incurred by the Contractor as a consequence of any relocation of personnel required to satisfy the terms of this Contract.
- (d) All travel must have prior authorization of the Technical Authority. All payments are subject to government audit.

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**4. SUBCONTRACTS (except the resources proposed in section 1. Labor):** at actual cost without markup

**TOTAL ESTIMATED COST TO A LIMITATION OF EXPENDITURE: 720,000.00\$  
(Applicable Taxes extra)**

## ATTACHMENT 2

### MANDATORY AND POINT RATED TECHNICAL CRITERIA

Summary of Rated Criteria	Max (points)	Min (points)
<b>B.1 Rated Technical Criteria for the firm contract part (Task 1)</b>	<b>80</b>	<b>40</b>
<b>B.2 Rated Technical Criteria for the work done on request via task authorizations</b>	<b>675</b>	<b>338</b>
B.2.1 – Management proposal	30	18
B.2.2 Project Manager Resource Category	60	30
B.2.3 Expert Linux Programmer Analyst (ELPA) Resource Category	285	140
B.2.4 Cyber Security Analyst (CSA) Resource Category	140	70
B.2.5 Linux Systems Configurator (LSC) Resource Category	160	80
<b>TOTAL</b>	<b>755</b>	<b>378</b>

#### 1. General

At the closing date and time of the bid solicitation, the Bidder must meet the following Mandatory Requirements and provide the necessary supporting documentation. Any bid that fails to meet any of the following Mandatory Requirements will be declared non-responsive.

A single resource (called the **main resource**) must be given for each of the following personnel categories:

- 1 Project Manager (PM)**
- 2 Expert Linux Programmer Analyst (ELPA)**
- 3 Cyber Security Analyst (CSA)**
- 4 Linux Systems Configurator (LSC)**

Each main resource will be evaluated according to criteria established for the category for which it was given. To enable the evaluation team to properly assess each of the technical evaluation criteria (mandatory and rated), the Bidder must clearly indicate the name of the proposed resources and the categories for which they are proposed.

No resource will be named for category **5 - Junior Developer (JD)**. The resources available for this category will be evaluated following the award of the contract. The minimum requirements to meet are included in the Statement of Work. However, the Bidder may include in the proposal the required documentation to assess the resources offered for the JD category so that a pool is created.

#### Evaluation of the experience of the proposed resources

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1- For each proposed resource, the Bidder should indicate experience in terms of months of experience and should specify whether the resource was full-time or not. This experience should be demonstrated in a clear, precise and concrete manner.

2- To determine whether the experience is acceptable, the Bidder should supply a detailed description of projects and work in which the available resources have acquired experience. The following information should be provided for each project:

- a) the subject;
- b) the objectives;
- c) the time frame (beginning and ending month and year) during which the proposed resource participated;
- d) the role of the proposed resource in the project;
- e) a description of the tasks performed by the proposed resource; and
- f) the duration of each task performed by the proposed resource.

**Note:**-Educational experience may be recognized if its pertinence is demonstrated satisfactorily.

### A. Mandatory Technical Criteria

Criterion	Description
1	<p>The Bidder must propose one main resource in each of the following labour categories:</p> <ul style="list-style-type: none"> <li>(a) One main resource in the Project Manager (PM) category</li> <li>(b) One main resource in the Expert Linux Programmer Analyst (ELPA) category</li> <li>(c) One main resource in the Cyber Security Analyst (CSA) category</li> <li>(d) One main resource in the Linux Systems Configurator (LSC) category</li> </ul>

### B. Rated Technical Criteria

No.	Criterion	Evaluation Scale	Max.	Min.
<b>B.1 Rated Technical Criteria for the firm contract part (Task 1)</b>			<b>80</b>	<b>40</b>
1	<p><b>Understanding of the work to be done.</b> The Bidder should clearly demonstrate that it understands the nature of the work to be done. It should also demonstrate that it understands the objectives, complexity and scope of the work (and not just the description that appears in the Statement of Work).</p>	This criterion will be scored according to the generic evaluation table.	20	
2	<p><b>Methodology.</b> The Bidder should propose a methodology/approach to meet the requirements, and to obtain the degree of success expected. Sufficient detail should be provided to demonstrate that the Bidder understands the requirements and that the approach/methodology proposed will ensure that the objectives are achieved.</p>	This criterion will be scored according to the generic evaluation table.	20	
3	<p><b>Recognition of direct and peripheral problems and ability to resolve them.</b> The Bidder should address the different problems and risks that could be encountered. The Bidder should provide details about the solutions to address any problems. The solutions should be relevant, realistic and appropriate for the project</p>	This criterion will be scored according to the generic evaluation table.	20	

No.	Criterion	Evaluation Scale	Max.	Min.
<b>B.1 Rated Technical Criteria for the firm contract part (Task 1)</b>			<b>80</b>	<b>40</b>
4	<b>Resource allocation</b> The Bidder should assign each of the proposed resources to the various tasks and sub-tasks of the project. The level of effort assigned to each resource should be realistic. The resources should be assigned to tasks matching their expertise.	This criterion will be scored according to the generic evaluation table.	10	
5	<b>Effort allocation</b> The Bidder should propose a work schedule that assigns a level of effort to each task and sub-task of the project. The work schedule must meet the project deadlines. The level of effort allocated to each task and sub-task should be appropriate, realistic, and make it possible for the project's objectives to be met.	This criterion will be scored according to the generic evaluation table.	10	

No.	Criterion	Evaluation Scale	Max.	Min.
<b>B.2 Rated Technical Criteria for the work done on request via task authorizations</b>			<b>675</b>	<b>338</b>
<b>B.2.1 – Management proposal</b>			30	18
1	<b>Project Management.</b> The Bidder should describe how it intends to control project management in terms of:  <ul style="list-style-type: none"> <li>- work schedule</li> <li>-meeting deadlines</li> <li>- level of effort allocated to each task and sub-task</li> <li>- evaluation of priorities</li> <li>- overtime</li> <li>- availability of resources (accounting for the uncertainty in the dates of task authorizations)</li> <li>- quality of services rendered</li> </ul>	This criterion will be scored according to the generic evaluation table.	30	18

No.	Criterion	Evaluation Scale	Max.	Min.
<b>PROPOSED RESOURCES (by category of personnel)</b>				
Several sub-criteria in this section will be used to evaluate the qualifications of the resources.				
To be considered eligible by the evaluation team, a diploma must be issued by a recognized Canadian college or university, or, if the diploma is of foreign issue, have an equivalent as determined by a recognized International Academic Credential Evaluation and Assessment Service.				
* The list of recognized organisations appears in the webpages of the Canadian Information Centre for International Credentials at the following address: <a href="http://www.cicic.ca">http://www.cicic.ca</a>				
<b>B.2.2. Project Manager Resource Category</b>			<b>60</b>	<b>30</b>
1	Qualifications of the proposed resource	<p><b>30 points:</b> University-level degree in a field related to computer project management or administration or B.Sc. in engineering or Project Management Institute PMP (Project Management Professional) certification (<a href="http://www.pmi.org">www.pmi.org</a>)</p> <p><b>15 points:</b> College-level degree in a field related to computer project management or administration.</p> <p><b>0 points:</b> Any other degree</p>	30	
2	Experience of the PM in managing projects that involve software development	<p><b>30 points:</b> 24 or more full time months within the last four years.</p> <p><b>18 points:</b> Between 12 and 24 full time months within the last three years.</p> <p><b>5 points:</b> Between 3 and 12 full time months within the last two years.</p> <p><b>0 points:</b> Any other experience.</p>	30	

No.	Criterion	Evaluation Scale	Max.	Min.
<b>B.2.3 Expert Linux Programmer Analyst (ELPA) Resource Category</b>			<b>285</b>	<b>140</b>
1	Qualifications of the proposed resource	<p><b>30 points:</b> University-level degree (M.Sc. or better) in computer science, computer engineering, or electrical engineering.</p> <p><b>20 points:</b> University-level degree (B.Sc.) in computer science, computer engineering, or electrical engineering; or College-level degree in computer programming and 120 full time months of experience as programmer-analyst within the last 12 years.</p> <p><b>0 points:</b> Any other combination of degrees and experience</p>	30	20
2	Experience in C and/or C++ programming on Linux platforms and in an Eclipse development environment ( <a href="http://www.eclipse.org">www.eclipse.org</a> )	<p><b>50 points:</b> 36 or more full time months of experience within the last 5 years.</p> <p><b>30 points:</b> Between 24 and 36 full time months of experience within the last 4 years.</p>	50	30
3	Experience in Java programming in an Eclipse development environment ( <a href="http://www.eclipse.org">www.eclipse.org</a> )	<p><b>20 points:</b> Experience with three or more projects within the last 5 years.</p> <p><b>10 points:</b> Experience with two projects within the last four years.</p> <p><b>5 points:</b> Experience with one project within the last three years.</p>	20	
4	Experience in programming Java plug-ins for the Eclipse development environment ( <a href="http://www.eclipse.org">www.eclipse.org</a> )	<p><b>20 points:</b> Having developed three or more plug-ins within the last 5 years.</p> <p><b>15 points:</b> Having developed two plug-ins within the last four years.</p> <p><b>10 points:</b> Having developed one plug-in within the last three years.</p>	20	
5	Experience in programming C Linux kernel modules	<p><b>60 points:</b> Experience with three or more projects within the last 5 years.</p> <p><b>50 points:</b> Experience with two projects within the last four years.</p> <p><b>30 points:</b> Experience with one project within the last three years.</p>	60	30

No.	Criterion	Evaluation Scale	Max.	Min.
6	Experience in network socket programming on Linux platforms using various IP protocols	<p><b>35 points:</b> Experience with three or more projects within the last 5 years.</p> <p><b>25 points:</b> Experience with two projects within the last four years.</p> <p><b>10 points:</b> Experience with one project within the last three years.</p>	35	
7	<p>Experience with software tracers on Linux platforms within software development projects</p> <p>A non-exhaustive list of relevant Linux tracers is as follows: LTTng, SystemTAP, strace, ptrace</p>	<p><b>35 points:</b> Experience with at least two tracers in at least three projects within the last 5 years.</p> <p><b>25 points:</b> Experience with at least one tracer in at least two projects within the last four years.</p> <p><b>10 points:</b> Experience with at least one tracer within the last three years.</p>	35	10
8	Experience in the development of Linux software solutions to programming problems that are unaddressed by the market	<p><b>35 points:</b> Experience with three or more projects within the last 5 years.</p> <p><b>25 points:</b> Experience with two projects within the last four years.</p> <p><b>10 points:</b> Experience with one project within the last three years.</p>	35	

No.	Criterion	Evaluation Scale	Max.	Min.
<b>B.2.4 Cyber Security Analyst (CSA) Resource Category</b>			<b>140</b>	<b>70</b>
1	Qualifications of the proposed resource	<p><b>30 points:</b> University-level degree (B.Sc. or better) in computer science, computer engineering, or electrical engineering.</p> <p><b>20 points:</b> College-level degree in computer science and at least 96 full time months as a cyber security analyst within the last 10 years.</p> <p><b>10 points:</b> College-level degree in computer science, at least 24 full time months as a cyber security analyst within the last three years, and at least two of the following GIACs (Global Information Assurance Certifications): GCIA, GCIH, or GCUX.</p> <p><b>Note:</b> The GIACs can be obtained by completing a variety of SANS Institute courses (<a href="http://www.sans.org">www.sans.org</a>), which are dispensed by a great many Canadian training institutions. The list can be obtained from the SANS Web site.</p>	30	10
2	<p>Experience in configuring Linux cyber security systems</p> <p>The resource must have experience in at least three of the following types of systems: Firewalls, Antiviral software, Network Intrusion Detection Systems (NIDS), Host Intrusion Detection Systems (HIDS), Log analyzers</p>	<p><b>40 points:</b> 36 or more full time months of experience within the last 5 years.</p> <p><b>30 points:</b> 24 to 36 full time months of experience within the last four years.</p> <p><b>20 points:</b> 12 to 24 full time months of experience within the last three years.</p>	40	20
3	<p>Experience in using cyber attack, vulnerability testing, penetration testing and vulnerability exploitation tools</p> <p>An example of such a tool would be Metasploit (<a href="http://www.metasploit.com">www.metasploit.com</a>)</p>	<p><b>35 points:</b> Experience with three or more projects within the last 5 years.</p> <p><b>25 points:</b> Experience with two projects within the last four years.</p> <p><b>17 points:</b> Experience with one project within the last two years.</p>	35	

No.	Criterion	Evaluation Scale	Max.	Min.
4	Experience in designing malware and sophisticated cyber attacks on Linux platforms for testing and validation purposes	<p><b>35 points:</b> Experience with three or more projects within the last 5 years.</p> <p><b>25 points:</b> Experience with two projects within the last four years.</p> <p><b>17 points:</b> Experience with one project within the last three years.</p>	35	

No.	Criterion	Evaluation Scale	Max.	Min.
<b>B.2.5 Linux Systems Configurator (LSC) Resource Category</b>			<b>160</b>	<b>80</b>
1	Qualifications of the proposed resource	<p><b>30 points:</b> University-level degree (M.Sc. or better) in computer science, computer engineering or electrical engineering, and at least two of the following: completion of the Red Hat course RH401, completion of Red Hat course RH318, Red Hat Certified Engineer (RHCE) certification, or Red Hat Certified Datacenter Specialist (RHCDS) certification.</p> <p><b>20 points:</b> College-level degree in computer science, at least 96 full time months of experience as Linux systems configurator within the last 10 years, and at least one of the course completions or certifications mentioned above.</p> <p><b>10 points:</b> College-level degree in computer science, at least 36 full time months of experience as Linux systems configurator within the last 10 years, and at least two of the course completions or certifications mentioned above.</p> <p><b>Note:</b> The Red Hat courses and certifications are dispensed by a great many Canadian training institutions. The list can be obtained from the Red Hat Web site (<a href="http://www.redhat.com">www.redhat.com</a>).</p>	30	10

No.	Criterion	Evaluation Scale	Max.	Min.
2	<p>Experience in configuring the following systems:</p> <ol style="list-style-type: none"> <li>1. Red Hat Enterprise Linux (RHEL) 5 or 6 servers (or enterprise servers running other Linux distributions such as Fedora, CentOS, Ubuntu, etc.).</li> <li>2. Redundant Arrays of Independent Disks (RAID, such as the Dell MD1200) connected to Linux servers.</li> <li>3. Other backup hardware connected to Linux servers, such as Network-Attached Storage (NAS).</li> <li>4. Multiple-domain TCP/IP Local Area Networks (LANs) servicing Linux servers.</li> <li>5. Linux virtual machines running under Red Hat virtualization services.</li> </ol> <p>Note: The resource's number of months of experience must be broken down according to the categories listed above. To obtain at least 30 points, the Bidder must demonstrate that the experience of the resource is at least 2 months for each of the 5 categories above and must totalize at least 12 months.</p>	<p><b>60 points:</b> 36 or more full time months of experience within the last 5 years.</p> <p><b>50 points:</b> Between 24 and 36 full time months of experience within the last four years.</p> <p><b>30 points:</b> Between 12 and 24 full time months of experience within the last three years, including at least two full time months of experience in <i>each</i> of the five categories of systems on the left.</p>	60	50
3	<p>Experience in configuring multiple Linux nodes, including virtual machines, as clusters of at least size 3</p>	<p><b>35 points:</b> Experience with three or more projects within the last 5 years.</p> <p><b>25 points:</b> Experience with two projects within the last four years.</p> <p><b>17 points:</b> Experience with one project within the last two years.</p>	35	
4	<p>Experience in configuring small-scale computing systems (such as ARM Cortex A8 Systems-on-Modules) using specialized distributions of Linux</p>	<p><b>35 points:</b> Experience with three or more projects within the last 5 years.</p> <p><b>25 points:</b> Experience with two projects within the last four years.</p> <p><b>17 points:</b> Experience with one project within the last two years.</p>	35	

## ATTACHMENT 3 EVALUATION OF PRICE

For evaluation purposes only, the price of the bid will be determined as follows:

### 1 - Financial Bid

Bidders must submit their financial bid in accordance with Attachment 1 Financial Bid Presentation Sheet.

### 2 - Calculation of bid price

The bid price will be calculated as follows:

**Bid price = Cost of labor**

The Total Bid Price will be calculated as set out in section 3 below

The Bid Price will be evaluated on the basis of the following estimated level of effort:

1 - Project Manager (PM)	3%
2 - Expert Linux Programmer Analyst (ELPA)	30%
3 - Cyber Security Analyst (CSA)	30%
4 - Linux Systems Configurator (LSC)	30%
5 - Junior Developer	7%

### 3 - Cost of labour :

To establish labour costs, the effort available in terms of hours (see last column in Table 4.1, below) must be determined. The effort available for each resource category will be calculated as follows:

Effort available	=	[Total anticipated available funding] X [Approximate percentage use]
		[Average hourly rate for the resource category]

The cost of labour for a given category (for a given bid) is then obtained by multiplying the effort available by the average hourly rate provided for the given category (for a given bid).

Lastly, the cost of labour is calculated by adding the labour costs per category for a given bid.

For example:

- Anticipated funding for the work = \$850,000
- Percentage of use for "PM" = 3%
- If the average hourly rate for bid A = \$100, that for bid B = \$75 and that for bid C = \$90, then the average hourly rate for the resource category = \$88.33.

Therefore,

- Effort available  $\$850,000 \times 0.03 / \$88.33 = 288.69$  hours

and

- Labour costs for PM, bid a  
=288.69 hours x \$100 =28 869.00\$  
Labour costs for PM, bid b  
=288.69 hours x \$75 = 21 651.75\$
- Labour costs for PM, bid c  
=288.69 hours x \$90 = 25 982.10\$

#### 4 - Sample calculations for the price of the three bids

Table 4.1 - Sample calculations for the three bids

Resource category	% of use	Rate A	Price for A	Rate B	Price for B	Rate C	Price for C	Qty
1- Project Manager (PM)	3%	100,00 \$	28 867,92 \$	75,00 \$	21 650,94 \$	90,00 \$	25 981,13 \$	288,68
2- Expert Linux Programmer Analyst (ELPA)	30%	60,00 \$	213 488,37 \$	75,00 \$	266 860,47 \$	80,00 \$	284 651,16 \$	3558,14
3- Cyber Security Analyst (CSA)	30%	90,00 \$	292 978,72 \$	75,00 \$	244 148,94 \$	70,00 \$	227 872,34 \$	3255,32
4- Linux Systems Configurator (LSC)	30%	90,00 \$	275 400,00 \$	70,00 \$	214 200,00 \$	90,00 \$	275 400,00 \$	3060,00
5- Junior Developer	7%	90,00 \$	64 260,00 \$	70,00 \$	49 980,00 \$	90,00 \$	64 260,00 \$	714,00
<b>TOTAL :</b>			874 995,02 \$		796 840,34 \$		878 164,64 \$	

The “percentages of use” listed in the table are provided solely for the purpose of determining the estimated price for each bid. They represent approximate needs, provided in good faith, and should not be considered as a contractual guarantee.

These rates are provided as an example only and must not be interpreted as an indicator of the experience of the labour categories.

	Evaluated Price	Points (total)	Calculation	\$/points	Range
A	874 995,02 \$	75 points	874 995,02 \$ / 75	11 666.60	3rd range

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B	796 840,34 \$	82 points	796 840,34 \$ / 82	9 717.57	<b>1st range winner)</b>
C	878 164,64 \$	82 points	878 164,64 \$ / 82	10 709.32	2 <sup>nd</sup> range

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## **ANNEX A**

### **STATEMENT OF WORK**

The Statement of Work, which is enclosed, is to be inserted at this point and forms part of this document.

## ANNEX B

### BASIS OF PAYMENT (to be completed by Canada at Contract award) FOR THE FIRM PORTION OF THE WORK (TASK 1)

1. **LABOR** : Firm all-inclusive rates (Applicable Taxes extra, including profit and overhead) as follows :

Labor Categories	Firm all- inclusive hourly rates for the following periods:	
	Award to March 31, 2015	Estimated number of hours
<b>Project Manager</b> Name: _____	_____ \$ / hour	_____ \$ / hour
<b>Expert Linux Programmer Analyst (ELPA)</b> Name: _____	_____ \$ / hour	_____ \$ / hour
<b>Cyber Security Analyst (CSA)</b> Name: _____	_____ \$ / hour	_____ \$ / hour
<b>Linux Systems Configurator (LSC)</b> Name: _____	_____ \$ / hour	_____ \$ / hour
<b>Junior Developer (optional category for the firm part)</b> No resource is named for this category	_____ \$ / hour	_____ \$ / hour

**Est.: \$** \_\_\_\_\_

2. **MATERIALS AND SUPPLIES and EQUIPMENT:**

**Est.: \$** \_\_\_\_\_

3. **TRAVEL & LIVING:**

- (a) Canada will not accept any travel and living expenses incurred by the Contractor in the performance of the Work, for:
- (i) services provided within the Québec City Region (including Defence Research and Development Canada, Valcartier facility), and
  - (ii) any travel between the Contractor's place of business and the Québec City Region (including Defence Research and Development Canada, Valcartier facility).
- (b) For services to be provided outside the Québec City Region, the Contractor will be reimbursed its authorized travel and living expenses reasonably and properly incurred in the performance of the Work, at cost, without any allowance for profit and/or administrative overhead, in accordance with the meal, private vehicle and incidental expenses provided in Appendices B, C and D of the

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Treasury Board Travel Directive ([http://www.tbs-sct.gc.ca/pubs\\_pol/hrpubs/TBM\\_113/td-dv\\_e.asp](http://www.tbs-sct.gc.ca/pubs_pol/hrpubs/TBM_113/td-dv_e.asp)), and with the other provisions of the directive referring to "travellers", rather than those referring to "employees".

- (c) Canada will not accept any travel and living expenses incurred by the Contractor as a consequence of any relocation of personnel required to satisfy the terms of this Contract.
- (d) All travel must have prior authorization of the Technical Authority. All payments are subject to government audit.

Est.: \$ \_\_\_\_\_

**4. SUBCONTRACTS (except the resources proposed in section 1. Labor):**

Est.: \$ \_\_\_\_\_

**TOTAL ESTIMATED COST TO A LIMITATION OF EXPENDITURE: 130,000.00\$**  
**(Applicable Taxes extra)**

**FOR THE PORTION OF THE WORK REALIZED ON REQUEST USING A TASK AUTHORIZATION (TASKS 2.1 TO 2.16):**

Labor Category	Firm all- inclusive hourly rates for the following periods:				
	Award to March 31, 2015	April 1, 2015 to March 31, 2016	April 1, 2016 to March 31, 2017	April 1, 2017 to March 31, 2018	April 1, 2018 to March 31, 2019
<b>Project Manager</b> Name: _____	_____ \$ / hour	_____ \$ / hour	_____ \$ / hour	_____ \$ / hour	_____ \$ / hour
<b>Expert Linux Programmer Analyst (ELPA)</b> Name: _____	_____ \$ / hour	_____ \$ / hour	_____ \$ / hour	_____ \$ / hour	_____ \$ / hour
<b>Cyber Security Analyst (CSA)</b> Name: _____	_____ \$ / hour	_____ \$ / hour	_____ \$ / hour	_____ \$ / hour	_____ \$ / hour
<b>Linux Systems Configurator (LSC)</b> Name: _____	_____ \$ / hour	_____ \$ / hour	_____ \$ / hour	_____ \$ / hour	_____ \$ / hour
<b>Junior Developer</b> No resource is named for this category	_____ \$ / hour	_____ \$ / hour	_____ \$ / hour	_____ \$ / hour	_____ \$ / hour

**2. MATERIALS AND SUPPLIES and EQUIPMENT:** : at laid down cost without markup

**3. TRAVEL & LIVING:**

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Client Ref. No. - N° de réf. du client  
W7701-14-145788

Amd. No. - N° de la modif.  
File No. - N° du dossier  
QCN-3-336192

Buyer ID - Id de l'acheteur  
qc1028  
CCC No./N° CCC - FMS No./N° VME

- (a) Canada will not accept any travel and living expenses incurred by the Contractor in the performance of the Work, for:
  - (i) services provided within the Québec City Region (including Defence Research and Development Canada, Valcartier facility), and
  - (ii) any travel between the Contractor's place of business and the Québec City Region (including Defence Research and Development Canada, Valcartier facility).
- (b) For services to be provided outside the Québec City Region, the Contractor will be reimbursed its authorized travel and living expenses reasonably and properly incurred in the performance of the Work, at cost, without any allowance for profit and/or administrative overhead, in accordance with the meal, private vehicle and incidental expenses provided in Appendices B, C and D of the Treasury Board Travel Directive ([http://www.tbs-sct.gc.ca/pubs\\_pol/hrpubs/TBM\\_113/td-dv\\_e.asp](http://www.tbs-sct.gc.ca/pubs_pol/hrpubs/TBM_113/td-dv_e.asp)), and with the other provisions of the directive referring to "travellers", rather than those referring to "employees".
- (c) Canada will not accept any travel and living expenses incurred by the Contractor as a consequence of any relocation of personnel required to satisfy the terms of this Contract.
- (d) All travel must have prior authorization of the Technical Authority. All payments are subject to government audit.

**4. SUBCONTRACTS (except the resources proposed in section 1. Labor):** at actual cost without markup

**TOTAL ESTIMATED COST TO A LIMITATION OF EXPENDITURE: 720,000.00\$**  
**(Applicable Taxes extra)**

## ANNEX C

### CONTRACTOR DISCLOSURE OF FOREGROUND INFORMATION

Please refer to **Article 1 - Interpretation of 2040 General Conditions** for the definition of Foreground Information to determine what information must be disclosed.

The Contractor must provide the following information::

1. Contract No.:
2. What is the descriptive title of the FIP (Foreground Intellectual Property)?
3. Abbreviated description of the FIP and, if applicable, of the different systems and sub-systems.
4. What is or was the objective of the project?
5. Explain how the FIP meets the objective of the project (for example: the advantage of the new solution, what problem did the FIP resolve or what benefits did the FIP deliver).
6. Under which category (ies) would you best describe the FIP and why: Patents, Inventions, Trade Secrets, Copyright, Industrial Designs, Rights in Integrated Circuit Topography, Know-how, Other?
7. Describe the features or aspects of the FIP that are novel, useful and not obvious.
8. Has the FIP been tested or demonstrated? If yes, please summarise the results.
9. Has any publication or disclosure to others been made? If so, to whom, when, where and how?
10. Provide names and addresses of the inventors.
11. Provide an explicit and detailed description of the FIP developed during the contract (Refer to pertinent section of the technical report, if necessary).

Please specify name and position of person approving / authorizing this disclosure. This person is to sign and date the disclosure.

\_\_\_\_\_  
Signature Date

\_\_\_\_\_  
Name Title

-----  
(Internal DRDC Valcartier)

\_\_\_\_\_  
Signature Date

\_\_\_\_\_  
Name Title (Technical authority)

Solicitation No. - N° de l'invitation  
W7701-145788/A  
Client Ref. No. - N° de réf. du client  
W7701-14-145788

Amd. No. - N° de la modif.  
File No. - N° du dossier  
QCN-3-336192

Buyer ID - Id de l'acheteur  
qcl028  
CCC No./N° CCC - FMS No./N° VME

**ANNEX D**  
**SECURITY REQUIREMENTS CHECK LIST**

The Security Requirements Check List, which is enclosed, is to be inserted at this point and forms part of this document.

Solicitation No. - N° de l'invitation  
W7701-145788/A  
Client Ref. No. - N° de réf. du client  
W7701-14-145788

Amd. No. - N° de la modif.  
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Buyer ID - Id de l'acheteur  
qc1028  
CCC No./N° CCC - FMS No./N° VME

## **ANNEX E**

### **DND 626 TASK AUTHORIZATION FORM**

The DND 626, *Task Authorization Form*, which is enclosed, is to be inserted at this point and forms part of this document.

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# 1 Technical terms and initialisms used in the Statement of Work

- **AHLS:** Advanced Host-Level Surveillance
- **ARM:** Acorn RISC Machine (originally)
- **C2:** Command and Control: The exercise of authority and direction by a designated commander over assigned forces in the accomplishment of the force's mission
- **CDM:** Cyber Defence Mechanism. CDMs are made up of several software components that work together and generate various types of data in order to contribute to cyber surveillance and cyber protection.
- **Cyber:** This term is used to refer to the *cyber threat* domain. A “cyber” activity (conducted by a human or by software) is considered malicious as soon as it is unauthorized. “Cyber protection” and “cyber defence” refer to the use of computer security technologies to protect the DND computing infrastructure against “cyber” attacks.
- **Cyber defence:** Includes **cyber surveillance** (the detection of computing system anomalies and the identification of appropriate countermeasures) and **cyber protection** (the installation of countermeasures).
- **DND:** Department of National Defence
- **DRDC:** Defence R&D Canada
- **Driver:** A computer program installed in an operating system that controls a device, such as a USB drive, hard drive, keyboard, network card, or any other peripheral device connected to the computer.
- **Embedded System:** Small-sized computer (SoC, SoM) mounted on a part a device.
- **GRUB:** GRand Unified Bootloader
- **IP:** Internet Protocol
- **\$K:** thousands of dollars
- **LAN:** Local Area Network: A local network controlled by a network switch.
- **Live:** Means “while the system is in use” or “during military operations.”
- **LTTng:** (Linux Trace Toolkit next generation): An software-tracing infrastructure, developed within the framework of a DRDC project.
- **MCCS:** Mission Critical Cyber Security
- **NAT:** Network Address Translation
- **Node (synonyms: workstation, host, computer, system, component):** These words are used interchangeably within this document. In Figure 1 (see section 4), hardware components SW, C2-1, C2-2, DS-1, DS-2, H, CL, SV and SHM are all nodes. The virtual machines (VMs) that run on SV are also considered nodes. In this document, the word “node” is used predominantly.
- **OS (Operating System):** The nodes of the TVE mostly use Linux operating systems.
- **Probes:** (tracepoints and kprobes) Software objects can be inserted into the source code or memory images of software applications and the kernel modules of operating systems to do software tracing)
- **QoS:** Quality of Service
- **R&D:** Research and Development

- **Red Hat:** An operating system belonging to the Linux family. Several versions exist, however, Red Hat Enterprise Linux 6 (RHEL-6) is to be used for this work.
- **SoM** (System on Module): Small-sized, low-power computer system on a module.

**SP:** Service Pack

- **SPC:** Systems Protection & Countermeasures
- **TCMS:** TVE Configuration Management System
- **TVE** (Testing and Validation Environment): Used for R&D work in the cyber domain. The TVE consists of nodes networked together by a Cisco switch.
- **VM** (Virtual Machine): A functional simulation of a computer and its associated devices.

## 2 Applicable documents, references, and webpages

No applicable documents have been identified; however, the following webpages may be useful:

- **LTTng:** <http://ltnng.org/>
- **Poly-Tracing:** <http://dmct.dorsal.polymtl.ca/>
- **AHLS:** <http://ahls.dorsal.polymtl.ca/>
- **QT:** <http://qt.digia.com/>
- **Linux Tools:** <http://www.eclipse.org/linuxtools/projectPages/ltnng/>
- **Eclipsepedia (Linux Tools: LTTng):**  
[http://wiki.eclipse.org/Linux\\_Tools\\_Project/LTTng2/User\\_Guide](http://wiki.eclipse.org/Linux_Tools_Project/LTTng2/User_Guide)

### 3 Context

The mandate of the DRDC Valcartier MCCA section's SPC group is to study and advance the live **cyber defence** (cyber surveillance and cyber protection) capabilities of DND's computing infrastructure in order to counter malicious activities that may occur on that infrastructure during military operations. It is within this research framework that the group develops **live cyber surveillance** technologies that can detect and localize anomalies that may arise on DND's computing infrastructure, and **cyber protection** technologies that can counter these anomalies.

The cyber defence technology prototypes are designed and tested through unclassified DRDC research projects involving academia and industry. An unclassified environment reproducing certain critical military system functionalities and allowing for testing and validation is required to bring DRDC's cyber defence research projects to fruition.

#### Objectives

To develop a Testing and Validation Environment (TVE), install cyber surveillance and cyber protection systems within this environment, test these systems, and contribute to their further development. Then, depending on the results and technologies achieved through the above tasks, define and conduct experimentation within the TVE in order to validate these technologies.

## 4 Description of the Testing and Validation Environment

This section provides a description of the various components of the Testing and Validation Environment (TVE). It is necessary to get a proper understanding of the work to be done, and is referred to throughout this Statement of Work. Figure 1, below, shows the physical layout of the various TVE components, which are referred to as “nodes” in this document. Additional nodes may be added as the work progresses.

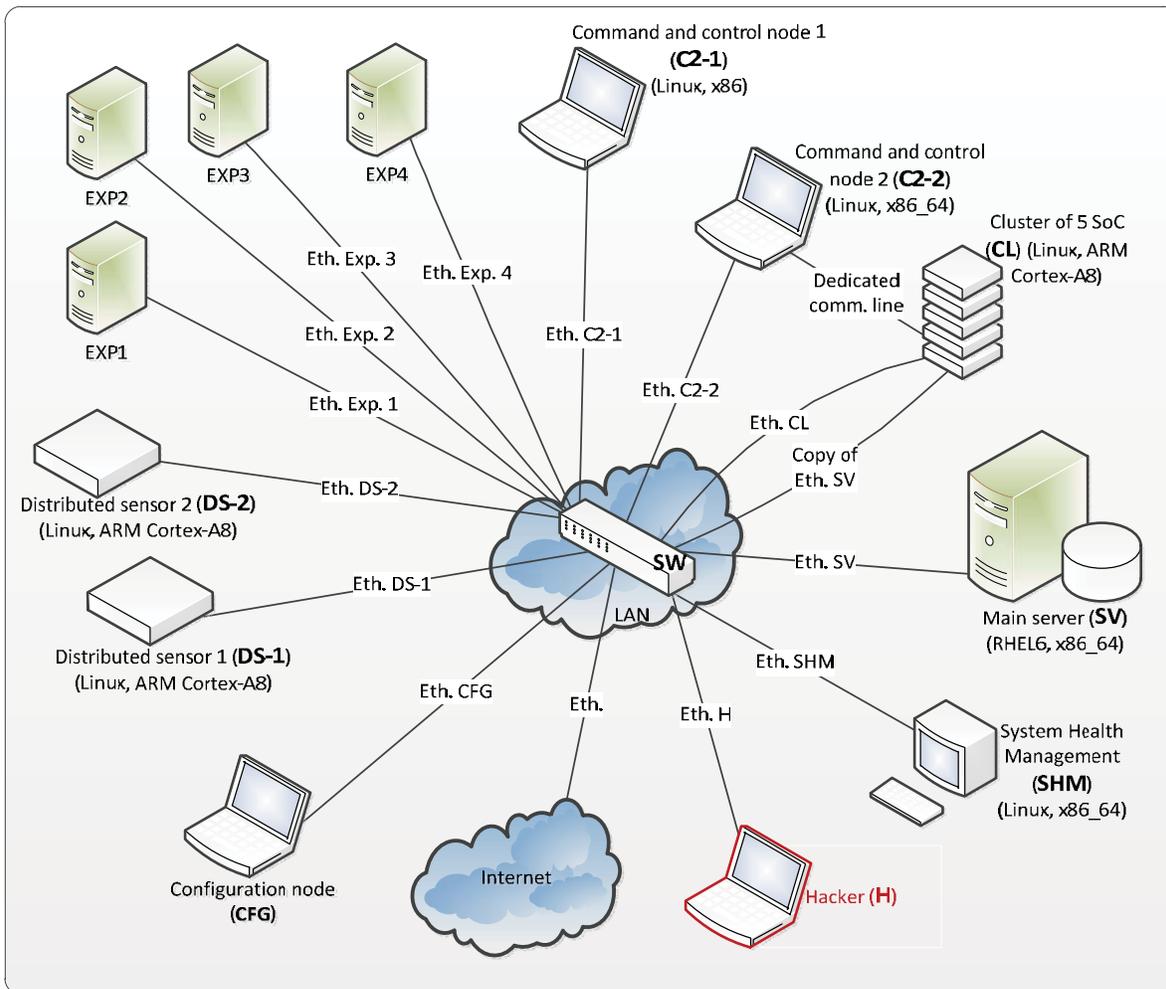


Figure 1. Basic hardware configuration of the TVE

Generally speaking, nodes C2-1 and C2-2 must be able to communicate with each other over a network to simulate, under laboratory conditions, the collaborative command and control (C2) work between officers who are geographically dispersed during military operations.

Nodes DS-1 and DS-2 Systems on Modules (SoMs) are connected to sensors (not shown) that continuously process several measurement values acquired from these sensors. Nodes DS-1 and DS-2 then send, on a continuous basis, the output of their processing through the network to the main server (SV).

The results of the pre-analytics conducted on nodes DS-1 and DS-2 are then transmitted via the network to the SV server. The server node (SV) does the final processing of these data, saves them and stores them

in a simple database (the “sensor database”) for later use by other nodes. Nodes (C2-1 and C2-2) send queries to the main server SV node to obtain these data and the analysis results. SV also stores all of the traces generated and is a VM host.

The cluster (CL) is made up of five or more SoMs. SoMs are small, low-power computer systems that are often embedded in telephones, tablet computers, etc. The SoMs in the CL node are configured in cluster mode and operate in parallel. The CL was added to the TVE to conduct the following analyses:

- 1- Continuously analyze the network communications exchanged between node C2-2 and SW;
- 2- Continuously evaluate the health status of node C2-2 (using a dedicated channel, see figure 1); and
- 3- Evaluate, as needed, the health status of any other TVE node.

Analysis and cyber defence mechanisms will be installed on nodes C2-1, C2-2, DS-1, DS-2, SV, CL and SHM. These mechanisms, developed in the course of other DRDC research projects, are expected to:

- 1- Analyze live data (during the TVE’s operation simulating production mode);
- 2- Detect anomalies on TVE nodes, with a false alarm rate as low as possible; and
- 3- Activate the appropriate cyber defence mechanisms to protect the systems upon which anomalies were detected.

Management of TVE mode health status can be done locally (on each of the C2-1, C2-2, DS-1, DS-2, SV, CL and SHM nodes); and remotely (from the SHM node). In remote mode, the SHM node is dedicated to the remote health and security management of all instrumented TVE nodes (except the H node). The SHM node also conducts continuous live data analyses in order to display graphically the real-time health status of the various TVE nodes (C2-1, C2-2, DS-1, DS-2, SV and CL). The SHM node can remotely control the cyber surveillance and defence mechanisms installed on these each nodes.

The different nodes are assigned to different IP domains (defined later in this document). The domains are configured by the SW node.

Table 1, below, lists and briefly describes each TVE node. The Government of Canada will supply all hardware and software components.

In the remainder of this document, the term “instrumented” refers to systems (TVE nodes) on which the LTTng suite has been installed.

**Table 1.** Name and function of each node (component) of the TVE.

Name	Node	Principal Functions
<b>C2-1 and C2-2</b>	C2 Computers	C2-1 and C2-2 support software that simulates geographically distributed C2 activity. Development of the C2 software is not part of the tasks in this Statement of Work.
<b>CL</b>	Cluster of SoMs	CL is a set of five or more SoMs configured in cluster mode for conducting real-time analyses of various types of data.
<b>SV</b>	TVE Main Server	SV is a server that contains the observations and data analysis results from DS-1 and DS-2. It makes the data and analysis results accessible and also supports several VMs. The SV node also stores and generates the data that were measured and

		captured on all TVE nodes.
<b>SHM</b>	System Health Management	The SHM workstation remotely controls the cyber defence of the various TVE nodes (except H). Analysis mechanisms will be installed.
<b>H</b>	Hacker Workstation (workstation from which cyber attacks or penetration testing on the TVE are launched)	The H node is where malicious processes and software are run to conduct cyber attacks against various TVE components. This serves to test the effectiveness of cyber defence mechanisms to effectively detect and protect against cyber attacks.
<b>DS-1</b>	SoM #1	DS-1 and DS-2 are embedded systems connected to sensors (not shown) that collect, pre-process and transmit (to the SV) data observed during military operations. These nodes consist of SoMs.
<b>DS-2</b>	SoM #2	
<b>SW</b>	Cisco Switch	The SW switch establishes Ethernet connectivity between the various TVE components. It assigns each node to an IP domain, controls the quality of service (QoS) between the C2-1 and C2-2, and continuously sends a copy of the SW/C2-2 conversation to CL for analysis (see figure 1).
<b>EXP1, EXP2, etc.</b>	TVE Expansion Nodes	These nodes are required to conduct different, more complex experimentations with the TVE. They serve, among other things, to simulate certain complex computing platforms used by the Canadian Forces. They have no specific roles, however, they must nevertheless be configured as part of the work to be done under this contract.
<b>CFG</b>	TCMS Configuration Node of the TVE	Node from which it is possible to reconfigure, i.e. reinstall and reconfigure the operating system and software of all other TVE's nodes from scratch.

## 5 Scope of work (tasks)

The tasks required in this Statement of Work are divided into two parts. Task 1 (Firm) describes the tasks that the Contractor must complete as of the awarding of the contract. The second part covers task authorizations.

### 5.1 Task 1 (firm)

#### 5.1.1 Task 1.1 – Basic configuration of nodes SW, C2-1, C2-2, DS-1, DS-2, SHM, CL, SV, H, EXP-1, EXP-2, EXP-3 and EXP-4

The Contractor must:

- a) Physically set up nodes SW, C2-1, C2-2, DS-1, DS-2, SHM, CL, SV, H, EXP-1, EXP-2, EXP-3, and EXP-4. Node CFG is set up under task 1.6. The hardware for the nodes is government-supplied and is as follows:
  - 1) C2-1 and C2-2: 64-bit multicore systems.
  - 2) DS-1 and DS-2: ARM Cortex A8 type computers (one of: Gumstix Overo or Beagle Black). The Contractor must connect sensors (Government-supplied) to DS-1 and DS-2.
  - 3) SHM: 64-bit multicore system.
  - 4) CL: Either parallel SoM (Epiphany; <http://www.adapteva.com/epiphany-multicore-intellectual-property/>) or 5 ARM Cortex A8 type computers (one of: Gumstix Overo or Beagle Black).
  - 5) SV: 64-bit multicore system (DELL T710 server) with two backup units (Iomega and Dell MD1200).
  - 6) H: 64-bit multicore system.
  - 7) EXP-1 through EXP4: 64-bit multicore systems.
- b) Install and configure the following operating systems on the TVE nodes:
  - 1) SW: The latest Cisco operating system release for the device.
  - 2) C2-1, C2-2: The latest Red Hat (RHEL6) 64-bit operating system release for the platform from the Red Hat website.
  - 3) DS-1, DS-2: The most appropriate Linux release for this type of node. The Contractor must determine the best Linux option.
  - 4) CL (made up of 5 SoMs): A specialized distribution of Linux for this type of node. The Contractor must determine a the most appropriate Linux option that supports clustering.
  - 5) SV and SHM: The latest Red Hat (RHEL6) 64-bit operating system release for the platform, as supplied by the Red Hat website.
  - 6) H: The latest BackTrack 64-bit operating system release for the platform, or the latest equivalent.
  - 7) EXP-1 through EXP-4 Multiple boot: The operating system must be able to selected at system start-up (by GRUB-2) from following operating systems installed and configured by the Contractor:
    - i) The most recent release of Ubuntu 64-bit;
    - ii) The most recent release of Fedora 64-bit;
    - iii) The most recent release of Red Hat (RHEL6) 64-bit;
    - iv) The most recent release of Microsoft Windows 7 SP 1 Professional 64-bit; and
    - v) The last release of Microsoft Windows XP Professional x64 Edition (SP2, 5.2.3790.3959).
- c) Configure the following four different networking domains on the TVE (SW and all other nodes):
  - 1) Domain IP1: (xxx.yyy.10.1 through xxx.yyy.10.200),for nodes C2-1, DS-1, and EXP-1;
  - 2) Domain IP2: (xxx.yyy.20.1 through xxx.yyy.20.200) for nodes C2-2, DS-2, CL and EXP-2;
  - 3) Domain IP3: (xxx.yyy.30.1 through xxx.yyy.30.200) for nodes SV, SHM, and EXP-3; and
  - 4) Domain IP4: (xxx.yyy.40.1 through xxx.yyy.40.200) , for nodes H and EXP-4.

- d) The direct connection between nodes C2-2 and CL is not part of the domains defined and is independent of the communications managed by the SW node. It is a separate dedicated connection (a non-Ethernet protocol):
  - 1) The Contractor must install the following three types of connections: RS-232, RS-422, RS-485.
  - 2) It must be possible to configure the TVE to use any one of the three protocols between two nodes C2-2 and CL.
- e) Install the following four communications protocols used to connect the sensors to nodes DS-1 and DS-2: I2C, RS-232, and CAN.
- f) Ensure that the SW node:
  - 1) Allows network communications between all other TVE nodes;
  - 2) Prioritizes communications between nodes C2-1 and C2-2 (the Contractor is responsible for determining the level of QoS, based on the functions available on the SW and the network cards on the other nodes);
  - 3) Allows continuous duplication (on the Copy of Eth. C2-2 connection; figure 1) of the communications packets exchanged between nodes C2-2 and SW. This copy of the communications packets exchanged must be able to be used by the CL node for continuous analysis;
  - 4) Allows communications between the TVE and other external networks (such as intranets, Internet, etc.) through the SW node (the Contractor must install and configure basic firewall protection);
  - 5) Ensure the following protocols can be used between C2-2 and CL: RS-232, RS-422, RS-485.
- g) Connect the SV node to its backup units (Iomega and Dell MD1200) and ensure that they are functional. The Contractor must:
  - 1) Configure the SV node's Iomega backup unit to do automatic daily system backups; and
  - 2) Configure the SV node's Dell MD1200 backup unit to capture, during experimental runs, very large volumes of data (several terabytes) without creating a system bottleneck.
- h) Verify that each technology undergoing development within this subtask is working correctly.

Section 6 of the Statement of Work contains the deliverables for this task.

### 5.1.2 Task 1.2 – Configure eleven VMs on SV

The Contractor must:

- a) Create and configure 11 different VMs on the SV node, which can be used four at a time. Each VM must have two processors. The operating systems for each VM must be as follows:
  - 1) The most recent release of 32-bit Fedora;
  - 2) The most recent release of 64-bit Fedora;
  - 3) The most recent release of 32-bit Ubuntu;
  - 4) The most recent release of 64-bit Ubuntu;
  - 5) The last release of Microsoft Windows XP Professional x64 Edition (SP2);
  - 6) The most recent release of Microsoft Windows 7 SP 1 Professional 64-bit;
  - 7) The most recent release of Microsoft Windows 8.1 x64 Edition;
  - 8) The most recent release of 64-bit OpenBSD;
  - 9) The most recent release of 64-bit FreeBSD;
  - 10) The most recent release of 64-bit BackTrack or more recent equivalent; and
  - 11) The most recent release of 64-bit Red Hat Enterprise Linux 6 Server.
- b) Ensure that:
  - 1) At least four VMs may be used at once on the SV node;
  - 2) These VMs share a private network within the SV host;
  - 3) These VMs have access to the local area network (SW node) through a Bridged or NAT connection;
  - 4) The VMs have maximal access to the SV node's storage space; and

- 5) Software updates for the various VMs must be possible at all times.
- c) Verify that each technology undergoing development within this subtask is working correctly.

Section 6 of the Statement of Work contains the deliverables for this task.

### **5.1.3 Task 1.3 – Install the LTTng tracing software on nodes C2-1, C2-2, DS-1, DS-2, SHM and SV**

The Contractor must:

- a) Install the latest release of the LTTng tracing suite on each of the instrumented nodes (C2-1, C2-2, DS-1, DS-2, SHM and SV) in order to trace both the kernel and user space on the operating system of each node.
- b) Install the latest release of the LTTng tracing suite on VMs 1, 2, 3, 4 and 11 (as described above.
- c) In each case (tasks 1.3.a) and 1.3.b)), install the latest release of the LTTng tracing suite so as to take advantage of any new or optional services and capabilities made available on the LTTng website at the time of the work.
- d) Install and configure the sshd service so that tracing can be fully controlled remotely using the tracing suite's SHM node .
- e) Verify that LTTng works on each node and VM by generating demonstration traces that use the tracepoints available on each system. For these nodes, the Linux kernel already contains a certain number of tracepoints that are ready to be used by the LTTng.

Section 6 of the Statement of Work contains the deliverables for this task.

*Note concerning task 1.3:* For some of the nodes listed, installing the LTTng tracing suite may be a highly complex task. For instance, LTTng components and tracepoints that are not part of the Red Hat Enterprise Linux 6 operating system. Advanced knowledge of the kernel and complex programming within this operating system will be required to complete the task. Significant technical hurdles may be encountered by the Contractor that could slow the execution of the tasks considerably. The Contractor is strongly encouraged to become a Red Hat Advanced Business Partner. This would give the Contractor direct access to Red Hat experts who will help in overcoming these obstacles.

### **5.1.4 Task 1.4 – Install new LTTng tracepoints in the Linux kernels of nodes C2-1, C2-2, SHM and SV**

The Contractor must:

- a) Identify critical places in the Linux kernel source code of nodes C2-1, C2-2, SHM and SV (itself and the instrumented VMs, see 2) below) to install new static LTTng tracepoints. The following three conditions apply:
  - 1) In the Linux kernel node scheduler, install the number of the probes needed for Scheduler components to capture all instances of execution traces at all times when the Scheduler is run.
  - 2) In the Linux kernel node Virtual Filesystem, install the number of the probes needed for Virtual Filesystem components to capture all instances of execution traces at all times when the Virtual Filesystem is run.
  - 3) In the software component incorporated in the network driver, located in the Linux kernel node, install the number of the probes needed to capture all instances of execution traces at all times (and important parameters) when a network communication is run.
- b) Add static LTTng probes to the locations identified, recompile them and install the node kernel.
- c) Ensure that on the SV node and its VMs:
  - 1) The LTTng probes are installed in the SV's native operating system (in the Scheduler, Virtual Filesystem and Network interface components).

- 2) The LTTng probes are installed in the operating systems of the VMs (in the Scheduler, Virtual Filesystem and Network driver of these VMs).
- 3) Additional probes are added to the hypervisor (the software manager of VM 1, 2, 3, 4 and 11) to enable the capture in the execution traces of cause-and-effect relationships between events occurring sequentially in the VMs, the hypervisor and the SV's native operating system.
- d) Test the operation of the new probes by using the LTTng tracer to generate and study in detail the appropriate execution traces (enabling the verification of the added probes). In this case, success will be measured by the low number and high criticality level of the tracepoints identified.

Section 6 of the Statement of Work contains the deliverables for this task.

Note 1 concerning subtask 1.4: This task is highly technical and complex and requires a certain degree of extensive research and complex development to install LTTng tracer probes (tracepoints) within Linux kernels on specified kernels. An advanced understanding of the kernel components is necessary to carry out this task successfully.

Note 2 concerning subtask 1.4: To facilitate the work, the Contractor may wish to complete task 1.6 before tackling subtask 1.4.

#### 5.1.5 Task 1.5 – Install the Eclipse Linux Tools suite on nodes C2-1, C2-2, SHM and SV

The Contractor must:

- a) Install the latest release of the Linux Tools Suite (Eclipse IDE for C/C++ Developers) on nodes SHM and SV to be able to fully control the LTTng software tracing (locally and remotely) on the TVE nodes where LTTng (and its probes) were installed.
- b) Configure the Linux tools graphical user interface on these nodes for local and remote control of LTTng tracing and to view execution traces generated by LTTng. All software and network links must be established between the Linux Tools (on these nodes) and the LTTng.
- c) Verify the operation of each technology and functionality that is the subject of this subtask.

Section 6 of the Statement of Work contains the deliverables for this task.

#### 5.1.6 Task 1.6 – Develop a TVE configuration management system

**Objectives and Explanations:** To define a method (in this case, referred to as the TVE configuration management system (TCMS)) that allows the complete reconfiguration of all TVE nodes to a previously saved state, in a rapid, efficient manner. Before each experimentation, all TVE nodes must be reset (all software and operating systems must be reset to a known, healthy and ready configuration). Only then can the experimentation be started using the latter configuration. The reconfiguration of TVE nodes must be managed from the CFG node (see Figure 1), which is the only node that will not be fully reconfigured to its initial state.

The Contractor must define and install a TVE configuration management system (TCMS) that will operate from the CFG node, which must be able to do the following quickly and efficiently:

- a) Save to a hard drive a complete *the entire TVE software configuration* for future use as needed.
- b) Completely delete all data, software, non-volatile memory values, operating systems and configurations on the TVE nodes (complete TVE reset or reformatting).
- c) Retrieve, from the CMS, the *TVE software configuration saved* to the hard drive.
- d) Restore the TVE software configuration to the TVE nodes for the next experimentation.

The Contractor must ensure that the TCMS and the supporting hardware and software runs properly (that items a), b), c) and d) were successfully carried out). The TCMS must be able to be reset at any time and generate the same outcome (the TVE correctly configured) every time.

Section 6 of the Statement of Work contains the deliverables for this task.

### **5.1.7 Task 1.7 – Finalization of task 1 and preservation of all results**

The Contractor must:

- a) Ensure that all technical obstacles were overcome, that the TVE is ready to be used in experimentations, that the TCMS is functional, and that a baseline TVE state has been saved for future use;
- b) Save to permanent digital storage (or on paper, if necessary) all information, development, research and analysis results, knowledge and recommendations produced and other forms of data (such as configuration settings, etc.) related to the work or tests that will have been done in tasks 1.1 to 1.6. Also save the references to websites and other documents consulted that would be useful for the Department; and
- c) Save this information on DVD or hard disk, whichever is most appropriate.

Section 6 of the Statement of Work contains the deliverables for this task.

## **5.2 Task 2 (scope of work involving task authorizations)**

### **5.2.1 Task 2.1 – Add a node to the TVE connect it to the SW node**

Work:

- a) Based on the specifications set out in the task authorization, do the work required to add a physical node to the TVE.
- b) Install and configure an operating system on this new node appropriate based on its intended use and the constraints set out in the task authorization.
- c) Add and configure a network connection between the new node and SW on its intended use and the constraints set out in the task authorization.
- d) Ensure that the work outcome matches the work description, and document and save all aspects of the work completed.

Deliverables:

- a) A new, functional node that meets the requirements set out in the task authorization.
- b) The documentation, information, software and data necessary to recreate the node from scratch and use it according to the specifications. This should be submitted in the form of a report and be provided on a DVD.

### **5.2.2 Task 2.2 – Add/install/configure a new Ethernet connection between the TVE and another network**

Work:

- a) Based on the specifications set out in the task authorization, do the work required to configure SW to allow secure communication with another (external) network based on its intended use and its constraints.
- b) Ensure that the work outcome matches the work description in the task authorization, and document and save all aspects of the work completed.

Deliverables:

- a) A functional communications link that satisfies the conditions described in the task authorization.

- b) The documentation, information, software and data necessary to recreate the link from scratch and to use it according to the specifications. This should be submitted in the form of a report and be provided on a DVD.

### **5.2.3 Task 2.3 – Add/install/configure a new non-Ethernet communications link between the TVE nodes**

Work:

- a) Based on the specifications set out in the task authorization, do the work required to install a communications link (other than Ethernet) between two or more TVE nodes.
- b) This communications link is not part of the domains defined within the TVE (by SW) and is independent of Ethernet communications. It is a separate, dedicated link.
- c) The Technical Authority will supply, at the outset of the work, all the information, software and hardware necessary to install this TVE link.
- d) Examples of communications protocols that may be selected are: MIL-STD-1553, CAN Bus, MIL-CAN Bus and other specialized protocols.
- e) Ensure that the work outcome matches the work description in the task authorization, and document and save all aspects of the work completed.

Deliverables:

- a) A functional communications link that satisfies the requirements set out in the task authorization.
- b) The documentation, information, software and data necessary to recreate the link from scratch and to use it according to the specifications. This should be submitted in the form of a report and be provided on a DVD.

### **5.2.4 Task 2.4 – Add/install/configure a data base on one or more TVE nodes**

Work:

- a) Based on the specifications set out in the task authorization, do the work required to install a database on one or more TVE nodes.
- b) The choice of database (Open Source only) is left to the Contractor. The Contractor should determine the option most appropriate for the database's intended use and the constraints set out in the task authorization.
- c) Configure the database for its intended use and the constraints set out in the task authorization.
- d) Ensure that the work outcome matches the work description in the task authorization, and document and save all aspects of the work completed.

Deliverables:

- a) A functional database on the node or nodes specified that satisfies the requirements set out in the task authorization.
- b) The documentation, information, software and data necessary to recreate the database from scratch and use it as specified. This should be submitted in the form of a report and be provided on a DVD.

### **5.2.5 Task 2.5 – Develop and install software to allow the exchange of data between two or more TVE nodes**

Work:

- a) Based on the specifications set out in the task authorization, do the work required to develop and install the software necessary to allow the exchange of data between the specified TVE nodes, based on the intended use of the data and the constraints set out in the task authorization. Configure all nodes involved as required (e.g. SW).
- b) Ensure that the work outcome matches the work description in the task authorization, and document and save all aspects of the work completed.

Deliverables:

- a) Functional communications between the specified nodes, as described in the task authorization.
- b) The documentation, information, software and data necessary to reinstall the software and communications connections from scratch and to run and use it according to the specifications. This should be submitted in the form of a report and be provided on a DVD.

#### **5.2.6 Task 2.6 – Develop/install a software application on one or more TVE nodes**

Work:

- a) Based on the specifications set out in the task authorization, do the work required to develop a software application that can run on one or more TVE nodes.
- b) Ensure that the work outcome matches the work description, and document and save all aspects of the work completed.

Deliverables:

- a) A developed and functional application on the TVE in accordance with the specifications set out in the task authorization.
- b) The documentation, information, software and data/parameters necessary to re-compile and install the application from scratch, and run and use it in accordance with the specifications.

#### **5.2.7 Task 2.7 – Install an existing data analysis application on one or more TVE nodes**

Work:

- a) Based on the specifications set out in the task authorization, do the work required to install an existing data analysis application (supplied by the Government) on one or more TVE nodes.
- b) Ensure that the work outcome matches the work description, and document and save all aspects of the work completed.

Deliverables:

- a) The functional software installed on the TVE in accordance with the requirements set out in the task authorization.
- b) The documentation, information, software and data/parameters necessary to re-compile and install the application from scratch, and run and use it in accordance with the specifications. This should be submitted in the form of a report and be provided on a DVD.

#### **5.2.8 Task 2.8 – Install existing cyber surveillance software on one or more TVE nodes**

Work:

- a) Based on the specifications set out in the task authorization, do the work required to install existing cyber surveillance software (supplied by the Government) on one or more TVE nodes.
- b) Ensure that the work outcome matches the work description, and document and save all aspects of the work completed.

Deliverables:

- a) The functional software installed on the TVE in accordance with the requirements set out in the task authorization.
- b) The documentation, information, software and data/parameters necessary to install the software from scratch and run and use it in accordance with the specifications. This should be submitted in the form of a report and be provided on a DVD.

#### **5.2.9 Task 2.9 – Install existing cyber protection software on one or more TVE nodes**

Work:

- a) Based on the specifications set out in the task authorization, do the work required to install existing cyber protection software (supplied by the Government) on one or more TVE nodes.

- b) Ensure that the work outcome matches the work description, and document and save all aspects of the work completed.

Deliverables:

- a) The functional software installed on the TVE in accordance with the requirements set out in the task authorization.
- b) The documentation, information, software and data/parameters necessary to re-compile and install the application from scratch, and run and use it in accordance with the specifications. This should be submitted in the form of a report and be provided on a DVD.

#### **5.2.10 Task 2.10 – Develop and install a new driver in the Linux kernel of one of the TVE nodes**

Work:

- a) Based on the specifications set out in the task authorization, do the work required to develop and install a driver that will executed in the Linux kernel of one or more TVE nodes.
- b) Ensure that the work outcome matches the work description, and document and save all aspects of the work completed.

Deliverables:

- a) The functional driver installed on the TVE in accordance with the specifications set out in the task authorization.
- b) The documentation, information, software and data/parameters necessary to re-compile and install a driver in the kernel from scratch, and run and use it in accordance with the specifications. This should be submitted in the form of a report and be provided on a DVD.

#### **5.2.11 Task 2.11 – Install new LTTng probes on one or more TVE nodes**

Work:

- a) Based on the specifications set out in the task authorization, do the work required to install new LTTng probes in the user space and/or kernel space of the Linux operating system.
- b) Ensure that the work outcome matches the work description, and document and save all aspects of the work completed.

Deliverables:

- a) The functional LTTng probes installed on the TVE nodes in accordance with the requirements set out in the task authorization.
- b) The documentation, information, software and data/parameters to re-compile and install a driver in the kernel from scratch, and run and use them in accordance with the specifications. This should be submitted in the form of a report and be provided on a DVD.

#### **5.2.12 Task 2.12 – Install existing operational software on one or more TVE nodes**

Work:

- a) Based on the specifications set out in the task authorization, do the work required to install existing operational software (supplied by the Government) on one or more TVE nodes.
- b) Ensure that the work outcome matches the work description, and document and save all aspects of the work completed.

Deliverables:

- a) The functional software installed on the TVE in accordance with the specifications set out in the task authorization.
- b) The documentation, information, software and data/parameters necessary to parameters to re-compile and install the software from scratch, and run and use it in accordance with the specifications. This should be submitted in the form of a report and be provided on a DVD.

### 5.2.13 Task 2.13 – Conduct an experimentation on the TVE

Work:

- a) Based on the experimentation plan provided by the Government (set out in the authorization), do the work required to prepare for the experimentation.
- b) Conduct the experimentation in accordance with the plan defined with the Technical Authority and possibly other designated persons.
- c) During the experimentation, collect and save all data, results, information, software, configurations, and any other directly and indirectly pertinent information.
- d) During the experimentation, measure all parameters characterising the level of compliance with the experimental plan.
- e) All experimentations will be conducted in concert with the Technical Authority and his/her team. Certain aspects of the experimentation could be carried out by the Technical Authority and his/her team.

Deliverable:

- a) The detailed experimentation plan, all relevant information, the complete description of all aspects of the experimentation (positive and negative) the results of preliminary analyses, the recommendations, software, configurations, data and parameters used to reproduce the experimentation as well as the outcomes. This should be submitted in the form of a report and be provided on a DVD.

### 5.2.14 Task 2.14 – Analyze the results of one or more experimentations conducted with the TVE

Work:

- a) Based on the specifications set out in the task authorization, use all information, data, results and preliminary analyses obtained in one or more past experiments to complete a detailed analysis of the experiments.
- b) Analyze the outcomes based on the intended objectives and outcomes of the experiments.
- c) Analyze the methodology used and the steps taken in the experimentations.
- d) Analyze the data describing the flow of the experimentations.
- e) Analyze the solution options when problems arose.
- f) Extract and highlight the important aspects and conclusions of the experimentations.
- g) Produce recommendations for future experimentations.

Deliverable:

- a) A report describing the all of the results from the analyses and recommendations.

### 5.2.15 Task 2.15 – Conduct a study of the state of the art of technologies that could be used in the field of cyber defence

Work:

- a) Based on the specifications set out in the task authorization, conduct a study of the state of the art of technologies that could be used in the field of cyber defence.
- b) Identify the various possible solution options and list the references consulted.
- c) Issue recommendations for a subsequent feasibility study.

Deliverable:

- a) A complete report describing all of the results of the study of state of the art of technologies, the analyses and recommendations.

### 5.2.16 Task 2.16 – Conduct a feasibility study of technologies that could be used in the field of cyber defence

Work:

- a) Based on the specifications set out in the task authorization, conduct a feasibility study of technologies that could be used in the field of cyber defence.

- b) Identify the results.
- c) Formulate recommendations.

Deliverable:

- a) A complete report describing all of the results from the feasibility study, the analyses and recommendations.

## 6 Deliverables and other publication types

### 6.1 Task 1 Deliverables

lists the deliverables and the deadline of each task.

Table 6.1 Schedule for Task 1 deliverables

Table 6.1 Schedule for Task 1 deliverables

Date	Reports / Deliverables / Meetings
31 October 2014	<b>Deliverable 1:</b> See section 6.1.1 of this document.
28 November 2014	Preliminary report Work progress meeting
30 January 2015	<b>Deliverable 2:</b> See section 6.1.2 of this document.
27 February 2015	Preliminary report Work progress meeting
31 March 2015	<b>Deliverable 3:</b> See section 6.1.3 of this document.

### 6.1.1 Deliverable 1 of Task 1

Upon submission of this deliverable, a meeting will be organized by the Contractor to discuss the conclusions and recommendations with respect to the work done to date and to update (if applicable) the project management plan for the continuation of the work.

**Work involved in this deliverable:** subtasks 1.1 and 1.2.

**Contents of the deliverable:**

- An MS PowerPoint presentation of all of the developments, research, results and analyses stemming from these subtasks along with a technical demonstration.
  - A ½-day meeting.
  - The meeting will be held in the DRDC Valcartier offices.
  - The content, date and agenda will be determined by the Contractor and the Technical Authority.
- A complete backup of the work results on DVD and/or hard drives.
- The TVE, configured and functional, as described for subtasks **1.1** and **1.2**.

### 6.1.2 Deliverable 2 of Task 1

Upon submission of this deliverable, a meeting will be organized by the Contractor to discuss the conclusions and recommendations with respect to the work done to date and to update (if applicable) the project management plan for the continuation of the work.

**Work involved in this deliverable:** subtasks 1.3 and 1.4.

**Contents of the deliverable:**

- An MS PowerPoint presentation of the all of developments, research, results and analyses stemming from these subtasks along with a technical demonstration.
  - A ½-day meeting.
  - The meeting will be held in the DRDC Valcartier offices.
  - The content, date and agenda will be determined by the Contractor and the Technical Authority.
- A complete backup of the work results on DVD and/or hard drives.
- The TVE, configured and functional, as described for subtasks 1.1, 1.2, **1.3** and **1.4**.

### 6.1.3 Deliverable 3 of Task 1

Upon submission of this deliverable, a meeting will be organized by the Contractor to discuss the conclusions and recommendations with respect to the work done to date.

**Work involved in this deliverable:** subtasks 1.5, 1.6 and 1.7.

**Contents of the deliverable:**

- The final report for Task 1. Section 6.3 of this document lists the expected final report contents.
- An MS PowerPoint presentation of all of the developments, research, results and analyses stemming from these subtasks along with a technical demonstration.
  - A ½-day meeting.
  - The meeting will be held in the DRDC Valcartier offices.
  - The content, date and agenda will be determined by the Contractor and the Technical Authority.
- A complete backup of all the results of the Task 1 work, on DVD and/or hard disks, as appropriate. Save to permanent digital storage (or on paper, if necessary) all information, development, research and analysis results, knowledge and recommendations produced and other forms of data (such as configuration settings, etc.) related to the work or tests that were done in

Task 1. Also, save the references to websites and other documents consulted that would be useful for the Department. Save this information on DVD or hard disk, whichever is most appropriate.

- A backup of all source code developed or acquired for the work, on DVD and/or hard disk media as appropriate (see Section 6.4).
- The TVE, configured and functional, as described for subtasks 1.1, 1.2, 1.3, 1.4, **1.5 and 1.6**.

## 6.2 Reports delivered to the Government

All reports must be submitted as two printed and bound copies and an electronic copy in PDF format, on CD-ROM or DVD.

### 6.2.1 Preliminary reports

Preliminary reports must contain the following items:

1. Title and report number (in accordance with Contractor's numbering)
2. An abstract of the report's contents (1/2 page)
3. Table of contents, list of figures, and list of tables
4. Introduction
  - a. Introduction
  - b. Objectives
  - c. How to use this document
5. Progress of work
  - a. Description of progress, delays, and consequences
  - b. Description of means taken to surmount problems and constraints
  - c. Adjusted work plan
6. Risk management
  - a. Description of risks and possible impacts
  - b. Description of means taken to manage the risks
7. Conclusions and recommendations
  - a. Conclusions
  - b. Recommendations
8. List of references

## 6.3 Final report

Final reports must contain the following points:

1. Title and report number (in accordance with Contractor's numbering)
2. An abstract of the report's contents (1/2 page)
3. An executive summary (2 pages)
4. Table of contents, list of figures, and list of tables
5. Introduction
  - a. Introduction
  - b. Objectives
  - c. Context
  - d. Approach
  - e. Methodology
  - f. Constraints and risks
  - g. How to use this document
6. Development
  - a. Architectural and functional description of software development to be done
  - b. Complete description of their use, configurations and data used
  - c. Description of results and recommendations
7. Experimentation
  - a. Complete description of setups, experimental plans, configurations, data and software used, observations, objectives and expected results
  - b. Description of results and recommendations
8. Complete analysis of results
  - a. Complete description of experimentations, analyses and results, experimental deviations and errors that occurred in the experimentations, impacts of results, including all results (successful and unsuccessful)
9. Conclusions and recommendations
  - a. Complete overview of results and analyses
  - b. Main conclusions
  - c. Recommendations
10. List of references
11. Useful annexes
  - a. Glossary (if necessary)

## 6.4 Source code delivered to the Government

When a backup is requested, a DVD-ROM (or hard disk, if necessary) must be delivered to Canada, containing all source code, information and data required for compilation, installation, and execution of the system or the experimentation.

Source code and configuration must be documented in accordance with a standard of the Contractor's choice. The chosen standard must meet the minimum recommendations of a recognized standard (such as MISRA C or JavaDoc). A document (e.g. readme.txt) must be prominently present on the DVD-ROM (or hard disk) which explains the requisite steps for compilation, installation and execution of the system. The standard chosen by the Contractor must be approved by the Technical Authority.

## 6.5 Publications by the Contractor

All manuscripts to be published in reviews, journals or on other media, as well as presentation summaries and other publications, must be submitted to the Technical Authority for review and approval at least 90 days before the presentation or publication date.

An explicit reference to Canadian Government funding must be included, and it must be clearly stated that the content is the responsibility of the authors.

The Technical Authority will provide a written objection if there are specific elements (such as the audience) that are not in the federal government's best interests. If the Technical Authority objects in writing, he will send the written objection to the organization responsible for the publication (e.g. journal or conference).

## 7 Meetings

### 7.1 Task 1 (firm) and Task 2 (task authorizations)

#### 7.1.1 Kick-off meeting

Within a few weeks of the contract award date, on a date determined by the Contractor, the Contractor must set up a kick-off meeting. The Contractor and Technical Authority will meet in person on the DRDC Valcartier site. The working language of this meeting may be French or English (as determined by the Contractor).

The Contractor is responsible for preparing the agenda, recording the minutes and the actions resulting from the meeting. The agenda must be distributed at least 12 hours before the meeting is held, and the minutes and actions must be delivered at most five working days after the meeting.

The meeting agenda must include the following points:

- Review of Task 1 and its subtasks.
- Presentation of the project management plan for Task 1.
- Discussion of budget management for Task 1.
- Discussion of the work methodology.
- Presentation of the procedures, formats, and standards used in the production of the documentation and the various deliverables of the Statement of Work.

#### 7.1.2 Work progress meetings

These meetings will be held face to face (between the Contractor and the Technical Authority and his/her team), on the DRDC Valcartier site. The working language of this meeting may be French or English (as determined by the Contractor).

The Contractor is responsible for preparing the agenda, recording the minutes and the actions resulting from the meeting. The agenda must be distributed at least 12 hours before the meeting is held, and the minutes and actions must be delivered at most five working days after the meeting.

## 8 Minimum requirements to meet for Junior Developer (JD) category

No resource will be named for category 5 - Junior Developer (JD). The resources available for this category will be evaluated following the award of the contract. The Bidder must demonstrate that the proposed resources meet the following minimal requirements. However, the Bidder may include in the proposal the required documentation to assess the resources offered for the JD category so that a pool is created.

No.	Criterion
1	Diplomas: minimum of a CEGEP degree in a field related to programming-oriented computer science.
2	<p>At least 8 months of experience in each of the following areas: C, C++ and Java programming in a Linux environment using Linux basic development tools (gcc, gdb).</p> <p><b>The Junior Developer's responsibilities may include, but are not limited to:</b></p> <ul style="list-style-type: none"><li>Performing tasks for this contract in support of the ELPA;</li><li>Developing, analyzing and debugging C, C++ and Java applications;</li><li>Designing and developing software components in C, C++ or Java;</li><li>Integrating software components into other software applications;</li><li>Entering data in a data container;</li><li>Processing data using known analysis and processing systems; and</li><li>Being responsible for other simple operations during the experimentations.</li></ul>

## **9 Other considerations**

### **9.1 Government furnished equipment (GFE)**

All computers, computing platforms, embedded systems, networks, operating systems, software, licences, and other work requirements necessary to execute the tasks and subtasks will be supplied to the Contractor by Canada.

### **9.2 Place of work**

The work defined in this contract is to be done on site at DRDC Valcartier: 2459, Route de la Bravoure Quebec City, QC G3J 1X5, CANADA.



Contract Number / Numéro du contrat <b>W7701-145788</b>
Security Classification / Classification de sécurité <b>Non-Classifié</b>

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

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



Contract Number / Numéro du contrat W7701-145788
Security Classification / Classification de sécurité Non-Classifié

**PART A (continued) / PARTIE A (suite)**

8. Will the supplier require access to PROTECTED and/or CLASSIFIED COMSEC information or assets?  
Le fournisseur aura-t-il accès à des renseignements ou à des biens COMSEC désignés PROTÉGÉS et/ou CLASSIFIÉS?  No / Non  Yes / Oui

If Yes, indicate the level of sensitivity:

Dans l'affirmative, indiquer le niveau de sensibilité :

9. Will the supplier require access to extremely sensitive INFOSEC information or assets?  
Le fournisseur aura-t-il accès à des renseignements ou à des biens INFOSEC de nature extrêmement délicate?  No / Non  Yes / Oui

Short Title(s) of material / Titre(s) abrégé(s) du matériel :

Document Number / Numéro du document :

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

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

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

Special comments:

Commentaires spéciaux : Accès à RDDC Valcartier'

Toutes les tâches = cote de fiabilité

NOTE: If multiple levels of screening are identified, a Security Classification Guide must be provided.

REMARQUE : Si plusieurs niveaux de contrôle de sécurité sont requis, un guide de classification de la sécurité doit être fourni.

10. b) May unscreened personnel be used for portions of the work?  
Du personnel sans autorisation sécuritaire peut-il se voir confier des parties du travail?  No / Non  Yes / Oui

If Yes, will unscreened personnel be escorted?  
Dans l'affirmative, le personnel en question sera-t-il escorté?  No / Non  Yes / Oui

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

INFORMATION / ASSETS / RENSEIGNEMENTS / BIENS

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

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

**PRODUCTION**

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

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

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

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



Contract Number / Numéro du contrat W7701- 145788
Security Classification / Classification de sécurité Non-Classifié

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

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

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

**SUMMARY CHART / TABLEAU RÉCAPITULATIF**

Category / Catégorie	PROTECTED / PROTÉGÉ			CLASSIFIED / CLASSIFIÉ			NATO				COMSEC						
	A	B	C	CONFIDENTIAL / CONFIDENTIEL	SECRET	TOP SECRET / TRÈS SECRET	NATO RESTRICTED / NATO DIFFUSION RESTREINTE	NATO CONFIDENTIAL / NATO CONFIDENTIEL	NATO SECRET	COSMIC TOP SECRET / COSMIC TRÈS SECRET	PROTECTED / PROTÉGÉ			CONFIDENTIAL / CONFIDENTIEL	SECRET	TOP SECRET / TRÈS SECRET	
											A	B	C				
Information / Assets / Renseignements / Biens	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Production	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
IT Media / Support TI	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
IT Link / Lien électronique	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

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

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

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

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

**TASK AUTHORIZATION  
AUTORISATION DES TÂCHES**

All invoices/progress claims must show the reference Contract and Task numbers. Toutes les factures doivent indiquer les numéros du contrat et de la tâche.		Contract no. – N° du contrat  Task no. – N° de la tâche
Amendment no. – N° de la modification	Increase/Decrease – Augmentation/Réduction	Previous value – Valeur précédente
To – À	<p><b>TO THE CONTRACTOR</b></p> <p>You are requested to supply the following services in accordance with the terms of the above reference contract. Only services included in the contract shall be supplied against this task.</p> <p>Please advise the undersigned if the completion date cannot be met. Invoices/progress claims shall be prepared in accordance with the instructions set out in the contract.</p> <p><b>À L'ENTREPRENEUR</b></p> <p>Vous êtes prié de fournir les services suivants en conformité des termes du contrat mentionné ci-dessus. Seuls les services mentionnés dans le contrat doivent être fournis à l'appui de cette demande.</p> <p>Prière d'aviser le signataire si la livraison ne peut se faire dans les délais prescrits. Les factures doivent être établies selon les instructions énoncées dans le contrat.</p>	
Delivery location – Expédié à	<p>_____</p> <p style="text-align: center;">Date</p> <p style="text-align: right;">_____ for the Department of National Defence pour le ministère de la Défense nationale</p>	
Delivery/Completion date – Date de livraison/d'achèvement		
Contract item no. N° d'article du contrat	Services	Cost Prix
	<b>GST/HST TPS/TVH</b>	
	<b>Total</b>	
<p><b>APPLICABLE ONLY TO PWGSC CONTRACTS:</b> The Contract Authority signature is required when the total value of the DND 626 exceeds the threshold specified in the contract.</p> <p><b>NE S'APPLIQUE QU'AUX CONTRATS DE TPSGC :</b> La signature de l'autorité contractante est requise lorsque la valeur totale du formulaire DND 626 est supérieure au seuil précisé dans le contrat.</p>		
<p>_____ for the Department of Public Works and Government Services pour le ministère des Travaux publics et services gouvernementaux</p>		

## Instructions for completing DND 626 - Task Authorization

### Contract no.

Enter the PWGSC contract number in full.

### Task no.

Enter the sequential Task number.

### Amendment no.

Enter the amendment number when the original Task is amended to change the scope or the value.

### Increase/Decrease

Enter the increase or decrease total dollar amount including taxes.

### Previous value

Enter the previous total dollar amount including taxes.

### To

Name of the contractor.

### Delivery location

Location where the work will be completed, if other than the contractor's location.

### Delivery/Completion date

Completion date for the task.

### for the Department of National Defence

Signature of the DND person who has delegated **Authority** for signing DND 626 (level of authority based on the dollar value of the task and the equivalent signing authority in the PAM 1.4). **Note:** the person signing in this block ensures that the work is within the scope of the contract, that sufficient funds remain in the contract to cover this task and that the task is affordable within the Project/Unit budget.

### Services

Define the requirement briefly (attach the SOW) and identify the cost of the task using the contractor's quote on the level of effort. The Task must use the basis of payment stipulated in the contract. If there are several basis of payment then list here the one(s) that will apply to the task quote (e.g. milestone payments; per diem rates/labour category hourly rates; travel and living rates; firm price/ceiling price, etc.). All the terms and conditions of the contract apply to this Task Authorization and cannot be ignored or amended for this task. Therefore it is not necessary to restate these general contract terms and conditions on the DND 626 Task form.

### Cost

The cost of the Task broken out into the individual costed items in **Services**.

### GST/HST

The GST/HST cost as appropriate.

### Total

The total cost of the task. The contractor may not exceed this amount without the approval of DND indicated on an amended DND 626. The amendment value may not exceed 50% (or the percentage for amendments established in the contract) of the original value of the task authorization. The total cost of a DND 626, including all amendments, may not exceed the funding limit identified in the contract.

### Applicable only to PWGSC contracts

This block only applies to those Task Authorization contracts awarded by PWGSC. The contract will include a specified threshold for DND sole approval of the DND 626 and a percentage for DND to approve amendments to the original DND 626. Tasks that will exceed these thresholds must be passed to the PWGSC Contracting Authority for review and signature prior to authorizing the contractor to begin work.

### Note:

Work on the task may not commence prior to the date this form is signed by the DA Authority - for tasks within the DND threshold; and by both DND and PWGSC for those tasks over the DND threshold.

## Instructions pour compléter le formulaire DND 626 - Autorisation des tâches

### N° du contrat

Inscrivez le numéro du contrat de TPSGC en entier.

### N° de la tâche

Inscrivez le numéro de tâche séquentiel.

### N° de la modification

Inscrivez le numéro de modification lorsque la tâche originale est modifiée pour en changer la portée.

### Augmentation/Réduction

Inscrivez le montant total de l'augmentation ou de la diminution, y compris les taxes.

### Valeur précédente

Inscrivez le montant total précédent, y compris les taxes.

### À

Nom de l'entrepreneur.

### Expédié à

Endroit où le travail sera effectué, si celui-ci diffère du lieu d'affaires de l'entrepreneur.

### Date de livraison/d'achèvement

Date d'achèvement de la tâche.

### pour le ministère de la Défense nationale

Signature du représentant du MDN auquel on a délégué le **pouvoir d'approbation** en ce qui a trait à la signature du formulaire DND 626 (niveau d'autorité basé sur la valeur de la tâche et le signataire autorisé équivalent mentionné dans le MAA 1.4). **Nota :** la personne qui signe cette attache de signature confirme que les travaux respectent la portée du contrat, que suffisamment de fonds sont prévus au contrat pour couvrir cette tâche et que le budget alloué à l'unité ou pour le projet le permet.

### Services

Définissez brièvement le besoin (joignez l'ET) et établissez le coût de la tâche à l'aide de la soumission de l'entrepreneur selon le niveau de difficulté de celle-ci. Les modalités de paiement stipulées dans le contrat s'appliquent à la tâche. Si plusieurs d'entre elles sont prévues, énumérez ici celle/celles qui s'appliquera/ront à la soumission pour la tâche à accomplir (p.ex. acompte fondé sur les étapes franchies; taux quotidien ou taux horaire établi selon la catégorie de main-d'œuvre; frais de déplacement et de séjour; prix fixe ou prix plafond; etc.). Toutes les modalités du contrat s'appliquent à cette autorisation de tâche et ne peuvent être négligées ou modifiées quant à la tâche en question. Il n'est donc pas nécessaire de répéter ces modalités générales afférentes au contrat sur le formulaire DND 626.

### Prix

Mentionnez le coût de la tâche en le répartissant selon les frais afférents à chaque item mentionné dans la rubrique **Services**.

### TPS/TVH

Mentionnez le montant de la TPS/TVH, s'il y a lieu.

### Total

Mentionnez le coût total de la tâche. L'entrepreneur ne peut dépasser ce montant sans l'approbation du MDN, formulaire DND 626 modifié à l'appui. Le coût de la modification ne peut pas être supérieur à 50 p. 100 du montant initial prévu dans l'autorisation de tâche (ou au pourcentage prévu dans le contrat pour les modifications). Le coût total spécifié dans le formulaire DND 626, y compris toutes les modifications, ne peut dépasser le plafond de financement mentionné dans le contrat.

### Ne s'applique qu'aux contrats de TPSGC

Le présent paragraphe s'applique uniquement aux autorisations de tâche accordées par TPSGC. On inscrira dans le formulaire DND 626 un plafond précis qui ne pourra être approuvé que par le MDN et un pourcentage selon lequel le MDN pourra approuver des modifications au formulaire DND 626 original. Les tâches dont le coût dépasse ces plafonds doivent être soumises à l'autorité contractante de TPSGC pour examen et signature avant qu'on autorise l'entrepreneur à débiter les travaux.

### Nota :

Les travaux ne peuvent commencer avant la date de signature de ce formulaire par le responsable du MDN, pour les tâches dont le coût est inférieur au plafond établi par le MDN, et par le MDN et TPSGC pour les tâches dont le coût dépasse le plafond établi par le MDN.