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11 Laurier St. / 11, rue Laurier  
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Core 0B2 / Noyau 0B2  
Gatineau, Québec K1A 0S5  
Bid Fax: (819) 997-9776

**LETTER OF INTEREST  
LETTRE D'INTÉRÊT**

Comments - Commentaires

Vendor/Firm Name and Address  
Raison sociale et adresse du  
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Issuing Office - Bureau de distribution  
Defence Communications Division. (QD)  
11 Laurier St./11, rue Laurier  
Place du Portage, Phase III, 8C2  
Gatineau, Québec K1A 0S5

<b>Title - Sujet</b> (CJIM) capital project C.003040	
<b>Solicitation No. - N° de l'invitation</b> W8476-216393/A	<b>Date</b> 2022-01-04
<b>Client Reference No. - N° de référence du client</b> W8476-216393	<b>GETS Ref. No. - N° de réf. de SEAG</b> PW-\$\$QD-028-28467
<b>File No. - N° de dossier</b> 028qd.W8476-216393	<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> Eastern Standard Time EST <b>on - le 2022-12-30</b> Heure Normale de l'Est HNE	
<b>F.O.B. - F.A.B.</b> <b>Plant-Usine:</b> <input type="checkbox"/> <b>Destination:</b> <input type="checkbox"/> <b>Other-Autre:</b> <input type="checkbox"/>	
<b>Address Enquiries to: - Adresser toutes questions à:</b> Garate, Oscar	<b>Buyer Id - Id de l'acheteur</b> 028qd
<b>Telephone No. - N° de téléphone</b> (876) 355-3354 ( )	<b>FAX No. - N° de FAX</b> ( ) -
<b>Destination - of Goods, Services, and Construction:</b> <b>Destination - des biens, services et construction:</b>  Specified Herein Précisé dans les présentes	

Instructions: See Herein

Instructions: Voir aux présentes

<b>Delivery Required - Livraison exigée</b> See Herein – Voir ci-inclus	<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/</b> <b>de l'entrepreneur ( taper ou écrire en caractères d'imprimerie)</b>	
<b>Signature</b>	<b>Date</b>

## REQUEST FOR INFORMATION (RFI) FOR THE COMBINED JOINT INTELLIGENCE MODERNIZATION (CJIM) PROJECT W8486-216393

### 1. Purpose and Nature of the Request for Information (RFI)

Public Services and Procurement Canada (PSPC) is requesting Industry feedback regarding the Combined Joint Intelligence Modernization (CJIM) project requirements as listed in the Annex A and Appendixes provided herewith. The requirements as described in the attached annexes will be fulfilled for Government of Canada on behalf of the Department of National Defence.

The objectives of this RFI are to:

- a. Apprise potential bidders of the requirements of this project;
- b. Collect information regarding the technical feasibility of the requirements as published in this document.
- c. Seek industry feedback to streamline DND technical requirements to help develop potential Request for Proposal/s that may be published sometime in the near future;
- d. Seek costing information from industry for budgetary purposes; and
- e. Engage potential bidders and answer their questions as necessary.

The requirement for industry will be to supply the T-SCIF subsystem of CJIM and provide long-term In-Service Support (ISS).

This RFI is neither a call for tender nor a Request for Proposal (RFP). No agreement or contract will be entered into based on this RFI. The issuance of this RFI is not to be considered in any way a commitment by the Government of Canada, nor as authority to potential respondents to undertake any work that could be charged to Canada. This RFI is not to be considered as a commitment to issue a subsequent solicitation or award contract(s) for the work described herein.

Although the information collected may be provided as commercial-in-confidence (and, if identified as such, will be treated accordingly by Canada), Canada may use the information to assist in drafting performance specifications (which are subject to change) and for budgetary purposes.

Respondents are encouraged to identify, in the information they share with Canada, any information that they feel is proprietary, third party or personal information. Canada may be obligated by law (under



the Access of Information and Privacy Act) to disclose proprietary or commercially-sensitive information concerning a respondent (for more information: <http://laws-lois.justice.gc.ca/eng/acts/a-1/>).

Respondents are asked to identify if their response, or any part of their response, is subject to the Controlled Goods Regulations.

There will be no short-listing of potential suppliers for the purposes of undertaking any future work as a result of this RFI. Similarly, participation in this RFI is not a condition or prerequisite for the participation in any subsequent potential solicitation/s.

Respondents will not be reimbursed for any cost incurred by participating in this RFI.

The RFI closing date published herein is not the deadline for comments or input. Comments and input will be accepted any time up to the time when/if a follow-on solicitation is published.

## 2. Background Information

The CJIM project will acquire deployable Multi-Source Intelligence capabilities to support Canadian Armed Forces (CAF) missions and operations. More precisely the project will provide three specific systems to enable the formation of an Intelligence centre on deployed operations.

- i. A deployable and transportable secure shelter system. This is called a ground-based Temporary Sensitive Compartmented Information Facility (T-SCIF). This is the focus of this RFI.
- ii. The Information and Communication Technologies (ICT) subsystem necessary to conduct intelligence support to operations in the deployed environment. The T-SCIFs may be equipped for other necessary networks at the Unclassified, Secret, or other Top Secret (TS) networks.
- iii. Infrastructure for storage and training. This will be referred to as Construction In Support Of Equipment (CISOE).

## 3. Potential Work Scope and Constraints

The requirements of the T-SCIF are as follows:

- i. Capable of being transported using strategic lift assets currently in the CAF (air, maritime platforms). These include CC-177 (Globemaster), CC-130 (Hercules) and Joint Support Ships;



- ii. Mobile, i.e., transported using tactical ground-based assets currently in the CAF, such as the Medium Support Vehicle System (MSVS);
- iii. Provide a scalable working environment capable of supporting between 4 to 90 personnel deployed for extended periods;
- iv. Meet the minimum requirements required for accreditation as Top Secret Special Access (TSSA) material as detailed in the Canadian Security Standards and Instructions<sup>1</sup>;

#### 4. Legislation, Trade Agreements, and Government Policies

The following is indicative of some of the legislation, trade agreements and government policies that may impact any follow-on solicitation(s):

- I. Defence Production Act (DPA)
- II. Controlled Goods Program (CGP)
- III. National Security Exception (NSE)
- IV. Industrial and Technological Benefits (ITBs)
- V. Federal Contractors Program for Employment Equity (FCP-EE)
- VI. Comprehensive Land Claim Agreements (CLCAs)

#### 5. Schedule

In providing responses, the following schedule should be utilized as a baseline:

- Posting RFI: 04 January 2022
- Teleconference Industry Day: 23 February 2022
- One-on-one sessions: 23-24 February 2022
- Closing RFI: 30 December 2022

Canada may modify the above timeline anytime as necessary.

Any changes to the tentative schedule and QA, will be communicated on <https://buyandsell.gc.ca>

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<sup>1</sup> Some TSSA material require further requirements.



## 6. Important Notes to Respondents

Any correspondence must be directed, in writing in electronic format only and in either official language of Canada, to the Public Services and Procurement Canada Contract Authority's identified below.

### **Oscar Garate**

Contracting Authority  
Public Services and Procurement Canada - Acquisitions Branch  
Land and Aerospace Equipment Procurement and Support Sector  
Telephone: 873-355-3354  
E-mail: oscar.garate@pwgsc.gc.ca

## 7. Upcoming Engagement Sessions

Interested respondents will have the opportunity to participate in the virtual "Industry Day" on 23 February 2022 at 09:00 followed by "one-on-one" meetings on 23-24 February 2022, with the government officials.

To register for the virtual Industry Day and booking a one-on-one meeting please e-mail the Contracting Authority at the email address provided above before Friday 18 February 2022 at 18:00.

Parties must indicate in writing the name, position and contact information of all participants.

One-on-One meetings will take place in 90 minute slots between 09:00 and 16:00 EST . If 90 minutes is insufficient, any additional Industry demonstrations may be arranged for the following week.

The purpose of these sessions is to provide interested participants with the opportunity to obtain further information about the CJIM Project and its specific requirements.

Non-participation at any Industry Day or one-on-one sessions will not preclude any firm from bidding on this requirement should a follow-on solicitation be issued.

## 8. Responses to the RFI

Responses to this RFI are to be submitted to the PSPC Contracting Authority by 30 December 2022.

Respondents are asked to use Annex B Response Template as provided for their response, supplemented with additional information as needed.. Excel file can be provided upon request.

Responses should provide costing for proposed solutions which meet all of the requirements. Respondents should present their responses in MS Word, Excel or any format as they deem fit.



## Annex A

### REQUIREMENTS

#### 1. Purpose

The purpose of this document is to inform industry of the scope of the work to be performed by Industry in the delivery of the ground-based Temporary-Sensitive Compartmented Information Facilities (T-SCIF) subsystem 1.

#### 2. Background

The CJIM project will acquire deployable Multi-Source Intelligence capabilities to support Canadian Armed Forces (CAF) missions and operations around the world. More precisely the project will provide three subsystems to enable the formation of an Intelligence centre on deployed operations.

The CJIM system-of-interest can be broken down into three subsystems.

- i The first subsystem, and the focus of this document, will be the acquisition of a scalable shelter system accredited for Top Secret Special Access (TSSA) material. These are commonly known as ground-based Temporary Sensitive Compartmented Information Facility (T-SCIF), and will be the foundation to enable rapidly deployable Intelligence centres.
- ii The second subsystem pertains to the Information and Communication Technologies (ICT) component necessary to conduct intelligence support to operations in the deployed environment, and is referred to as the Top Secret Environment (TSE).
- iii The third subsystem pertains to the infrastructure for storage of the T-SCIFs and training. This Construction In Support Of Equipment (CISOE) will provide a secure storage location for the T-SCIFs and information systems equipment, as well as provide a training environment which will allow real-world TS data to be used, processed and stored, for Intelligence personnel training.

The CJIM delivered capability is expected to operate in a very complex environment, at the Top Secret level and enable a Commander the ability to understand, act and control the battlespace while providing identification of hostile threats and minimize fratricide.



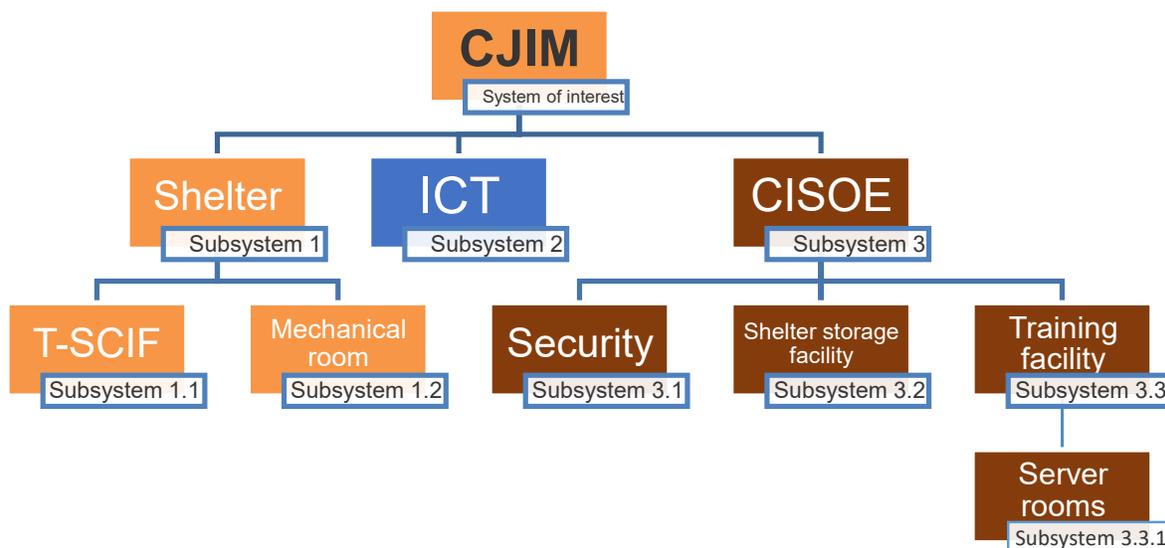


Figure 1: CJIM system breakdown

### 3. Technical Requirements

The requirement for Industry will be to supply Subsystem 1 of CJIM, and provide long-term In-Service Support (ISS) for this subsystem.

The requirements identified in this document pertain to the Ground-based Temporary - Sensitive Compartmented Information Facility (T-SCIF) system. The shelter subsystem includes a work area for personnel, and the ability to support occupancy and operations through power, ventilation, temperature control, and information system communication patch panels. The T-SCIFs would meet the minimum requirements required for accreditation as TS Special Access (TSSA) material and be accredited to process, store and discuss TSSA material. The shelter would be transported by means currently inherent to the Canadian Armed Forces and as intermodal freight. The shelter would need to maintain shielding integrity after repeated transport.

#### 4. Tasks

Industry provides the shelter subsystem in accordance with specifications in Table 1.

#### 5. Specifications

See Appendix 3 for the list of applicable documents. Table 1 articulates the technical specifications of the T-SCIF.

Serial	Description	
1	Air transportability	Transportable by CC-177 and CC-130, or slung under the CH-147 Chinook. Meet the requirements for lifting and tie-down provisions in accordance with MIL STD-209K, and the interface requirements of the Defence Transportation System (DTS) lift assets for unrestricted worldwide transport and deployment in accordance with MIL STD-1366E.
2	Land and sea transportability	Provisions (tie-down and lifting points, for example) for transport in accordance with MIL STD-209K. Transportable by commercial pattern and in-service military prime movers. Transportation by MSVS Load Handling System (LHS) trailer should be considered.
3	Land and sea Intermodal Transportability	Any deployable equipment procured under this project would be required to be transportable utilizing the intermodal transport system. No permanent external modifications that prevent intermodal transport are permitted. Transportable by rail and sea with no more than 60 minutes preparation time using common tools. Able to be loaded and unloaded both backwards and forwards into and out of rail cars and ships. Shelters built to international standards for shipping via road, rail, sea or air in accordance with ISO 1496.
4	Accreditation	Meets the minimum requirements required for accreditation to support the storage and processing of Top Secret Special Access (TSSA) material as detailed in the Canadian Security Standards and Instructions (CSSI) and in ITSG-02, Criteria for the Design, Fabrication, Supply, Installation and Acceptance Testing of Walk-in Radio-Frequency-Shielded Enclosures.



5	Environment	<p>Able to operate anywhere in the world. Suited to operate in climatic conditions ranging from A1 (+49°C) through C2 (-46°C) including M2 (Hot humid) (As defined in the Allied Publication on Testing for Environmental Conditions, AECTP 200).</p> <p>Designed to withstand wind and related atmospheric challenges found in these conditions (freezing rain, blowing snow, sandstorms, driving rain) and operate efficiently without damage to equipment or the shelter itself.</p>
6	Emergency egress	To facilitate the emergency egress of personnel from the complex, in event of fire or to man defensive positions.
7	Weapons storage	To facilitate proper and efficient storage of personal weapons for personnel; readily accessible.
8	Intrusion Detection System (IDS)	<p>Integrated IDS to detect unauthorized entry consisting of the following:</p> <ul style="list-style-type: none"> <li>8.1 Balanced Magnetic Switch (BMS) on the T-SCIF door;</li> <li>8.2 Motion detector(s). Industry determines the type of detector, proper placement and quantity;</li> <li>8.3 One (1) entry buzzer;</li> <li>8.4 One (1) CCTV entry camera facing exterior; and,</li> <li>8.5 Small flat screen monitor connected to the output of the CCTV entry camera.</li> </ul>
9	EMC/EMI	Minimal electromagnetic emissions / susceptibility and comply with the applicable sections of MIL STD-461G.
10	Human factors	Workstations designed using applicable Human Factors and Work Safety design methodologies. Meet the requirements according to the relevant human engineering standards and specifications of MIL STD-1472H.
11	Physical	<ul style="list-style-type: none"> <li>11.1 T-SCIF able to operate either mounted or dismounted from the Prime Mover.</li> <li>11.2 Have exterior walls and doors fabricated from corrosion resistant material that are resistant to impact. If steel is used, the steel should have an atmospheric corrosion resistance index greater than 6.7 in accordance with ASTM G 101-04.</li> <li>11.3 Utilize marine grade plywood or equivalent material where the use of it is required.</li> </ul>

		<p>11.4 Maintain EMI shielding integrity after recurring transport.</p> <p>11.5 Be capable of being set up on a gravel, asphalt, tarmacs or concrete surface. Capable of being leveled on a surface with a maximum grade from the front to the rear of the shelter of 63.5 cm (24 inches).</p>
12	Design	The overall concept is to have T-SCIFs based on ISO compatible shelters.
13	Power source	<p>The T-SCIF will be primarily powered by shore (external) power. The T-SCIF should be able to be powered while plugged into a standard power source worldwide.</p> <p>The baseline shelter with a mechanical room, should be equipped with a suitable backup generator with sufficient power to operate all electronic equipment for the T-SCIF. The generator should be able to operate using No. 2 Diesel (F-44), JP-5 (F-35), JP-8 (F-34) or Jet A-1 (F-54).</p>
14	Ventilation	Have a self-contained, stand alone, HVAC System requiring only power and outside air for operation in accordance with ITSG-02.
15	Weight	Cannot exceed 10,000 kg.
16	Work area lighting	Energy saving Light Emitting Diode (LED) lights, is recommended.
17	Electrical	<p>The electrical system includes all electrical wiring required for all internal and external systems, and be designed to operate on 120V 60 Hz Single-Phase electricity.</p> <p>17.1 Have a pre-wired 100 amp service power;</p> <p>17.2 Filter all power and signal lines that penetrate the enclosure in accordance with ITSG-02;</p> <p>17.3 Have the electrical system resistant to variation of temperature (from -45 to 50°C); and,</p> <p>17.4 Have a conductive floor to prevent electrostatic discharge.</p>
18	Smoke, Heat, and CO Detectors	Warning alert sounds can be suppressed from inside the working area.
19	Control Panel	Controls mechanical room equipment and temperature inside the working area.

20	Design loads	The equipment and the mounting systems will be subjected to severe loading conditions, particularly during cross-country operations. These items are therefore selected or designed to withstand the same loads that are experienced on the vehicle and during air, sea and rail transportation.																					
21	Interoperability	Interoperability with in-service equipment is preferred whenever possible.																					
22	Shock and vibration	Any equipment to be included in the T-SCIF is to withstand the shock and vibration of military operating conditions.																					
23	Interior noise and vibration	As per MIL STD-1474E.																					
24	Shielding	<p>The T-SCIF construction blocks EMI and RF emanations to provide a high level of shielding, and be TEMPEST compliant in accordance with ITSG-02. The shielding effectiveness should not be degraded by any penetration through its surfaces. Minimal cross contamination of EMI/RFI is required between the mechanical room and working area such that it doesn't affect the operation of the equipment on either side of the intermediate wall.</p> <p>The T-SCIFs are compliant with ITSG-02.</p> <table border="1" data-bbox="548 1176 1388 1564"> <thead> <tr> <th>Frequency</th> <th>Component</th> <th>Minimum Attenuation</th> </tr> </thead> <tbody> <tr> <td>10 kHz</td> <td>Magnetic</td> <td>55 dB</td> </tr> <tr> <td>200 kHz</td> <td>Magnetic</td> <td>95 dB</td> </tr> <tr> <td>1 MHz</td> <td>Magnetic</td> <td>100 dB</td> </tr> <tr> <td>400 MHz</td> <td>Plane-wave</td> <td>100 dB</td> </tr> <tr> <td>1 GHz</td> <td>Plane-wave</td> <td>100 dB</td> </tr> <tr> <td>10 GHz</td> <td>Plane-wave</td> <td>100 dB</td> </tr> </tbody> </table>	Frequency	Component	Minimum Attenuation	10 kHz	Magnetic	55 dB	200 kHz	Magnetic	95 dB	1 MHz	Magnetic	100 dB	400 MHz	Plane-wave	100 dB	1 GHz	Plane-wave	100 dB	10 GHz	Plane-wave	100 dB
Frequency	Component	Minimum Attenuation																					
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400 MHz	Plane-wave	100 dB																					
1 GHz	Plane-wave	100 dB																					
10 GHz	Plane-wave	100 dB																					
25	Configuration	The shelter has two separate rooms: a working room and a mechanical room. The working room allows multiple floor plans.																					



		<p>The mechanical room provides all power, HVAC, and electrical needs. Electrical supply allows external source, with automatic backup system to internal power. The mechanical room is accessible from outside the shelter when both mounted or dismounted.</p> <p>The shelter roof is accessible through a ladder or steps.</p>
26	Dimensions	<p>Built to ISO standards; Convention for Safe Containers (CSC) certified and complies with Transports Internationaux Routiers.</p> <p>Have an overall length 6058 mm (19 ft. 10 ½ inches) when transported and height and width of 2438 mm (8 ft.) wide by 2438 mm (8 ft.) wide (8 feet by 8 feet).</p> <p>The Medium Support Vehicle System (MSVS) has the capability of transporting a shelter 2438 mm (8 ft.) wide, 2438 mm (8 ft.) tall, and 6058 mm (19 ft. 10 ½ inches) long. These dimensions include the tie down and lifting points.</p> <p>The maximum height of the shelter is governed by its ability to be transported by MSVS under overpasses and bridges and is 2438 mm (8 ft.). The dimensional limits imposed by the MSVS are more stringent than those required to be transported by a CC-130 or CC-177 aircraft.</p> <p>Tolerances: 0%</p>
27	Life expectancy	20 years.
28	Warranty	Extended warranty will be requested.
29	CSA Certification	All electrical drawings are to be certified in compliance with the Canadian Electrical Code (CSA), the Federal Communication Commission (FCC) or the European Electrical Certification (EN), only.
30	Appearance, Identification and Marking	In accordance with ISO 1496-1, 1161, 6346 and 668.
31	Surface finishing	In accordance with Canadian Army Orders (CAO) 21-04 PAINT AND MARKING POLICY FOR LAND EQUIPMENT.
32	Fire extinguisher brackets	Two (2) CO2 fire extinguisher brackets per T-SCIF mounted by the entry and within the mechanical room. Brackets should accommodate appropriate size fire extinguishers for the size of the T-SCIF.



33	Sound attenuation	<p>The T-SCIF provides embedded sound masking and acoustical suppression to achieve a high level of sound attenuation in accordance with ICD/ICS 705. The T-SCIF perimeter walls, door, floor and ceiling, including all openings are to provide sufficient acoustical protection to preclude inadvertent disclosure of conversation.</p> <p>Provide a minimum sound transmission attenuation standard of Sound Group 4 -STC of 52 or better (as per ICD/ICS 705)</p>
34	Access doors	<p>The entrance, exit, and access door operate independently and allow normal operation with all doors shut in all weather conditions for which it was designed.</p> <ul style="list-style-type: none"> <li>34.1 Have an outer steel container door leading inside the T-SCIF;</li> <li>34.2 Door designed and tested for use in accordance with TEMPEST requirements.</li> <li>34.3 Mechanical room: A door on the rear of the container (opposite to the entry), a section completely separated from the operations zone, with an access steel container door to protect its contents. This section is accessible for field connectivity and maintenance servicing, and shields all components from the outside environment, allowing for operations in all-weather environments. The rear door does not negatively impact the transportation certification and accreditation for air, land and sea and does not alter the outside appearance of the container in a manner that would set it apart from conventional ISO containers. The T-SCIF is able to operate normally with the rear access closed.</li> </ul>
35	Integrated Server rack and patch panel specifications	<p>The T-SCIF would be pre-built for a server rack with the following specifications:</p> <ul style="list-style-type: none"> <li>35.1 19 inch shock-resistant, rack mount enclosure;</li> <li>35.2 Be standard four (4) posts;</li> <li>35.3 Be seismic certified for Zone 4 regions (highest risk area);</li> <li>35.4 Accommodate mounting 609.6 mm (24") rails to support the equipment at the front and at the back;</li> <li>35.5 Accommodate 483 mm (19") rack mounting space;</li> <li>35.6 Be lightweight, built of high strength aluminum;</li> </ul>



		<p>35.7 Be painted with black powder coat finish;</p> <p>35.8 Have hinged cable and vertical cable management; and</p> <p>35.9 Include a minimum of two (2) rack mounted power bars, 1800 watts, with an ON/OFF switch for each power bar.</p> <p>Details on external patch panel is to be issued.</p>
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## 6. Sustainment

### 6.1 CAF Lines of Maintenance Support

- 6.1.1. First Line. A maintenance organization allocated to a unit (i.e. battle group, battalion or regiment). A first line maintenance organization generally performs repairs of limited duration, must have mobility to match the supported unit, and is designed to be the interface with the equipment operators to diagnose faults. ‘Limited duration’ generally refers to repairs that take four or less hours.
- 6.1.2. Second Line. A maintenance organization allocated to a formation (i.e. brigade or brigade group). A second line maintenance organization is characterized by its ability to perform maintenance tasks of a longer duration than a first line organization. It generally has access to a greater range of parts and tooling. ‘Longer duration’ is generally defined as repairs that take between 4 and 12 hours.
- 6.1.3. Third Line. A maintenance organization allocated to a base or theatre of operations. Third line maintenance augments second line and can provide support to the Materiel Management and Distribution System (MMDS) through component repair and calibration. At third line, repair facilities are more robust and static in nature and repair resources are dedicated to production rather than battlefield survivability. An example is a maintenance workshop at a theatre base on operations, or base level facilities in Canada.
- 6.1.4. Fourth Line. A national level maintenance organization. Fourth line support is provided from static facilities outside the theatre of operations. It includes national resources such as civilian manufacturers.

6.2. Supply Chain. The Canadian Armed Forces (CAF) has two main supply depots in Canada (Edmonton and Montreal) in which materiel from suppliers arrive. From each of these locations, materiel is

shipped to CAF bases for distribution to units who are the end user. In terms of spare parts, there is typically a stock level assigned to each location based on the dependent unit's fleet types, fleet size and training frequency, as well as the type of maintenance that can be performed at that specific unit.

6.3. Integrated Logistic Support (ILS). ILS plans and directs the identification and development of logistic support and system requirements for military systems, with the goal of creating systems that last longer and require less support, thereby reducing costs and increasing return on investments. ILS therefore addresses these aspects of supportability not only during acquisition, but also throughout the operational life cycle of the system. The impact of ILS is often measured in terms of metrics such as reliability, availability, maintainability and system safety.

#### 6.4. Sustainment Requirements – ILS Services

6.4.1. Logistic Support Analysis (LSA). LSA is the process by which the logistic support necessary for a new system/equipment is identified. It is comprised of tasks and actions needed to identify and quantify logistic resource requirements, and to optimize the type, quantity, and distribution of these resources with respect to life cycle costs and availability. LSA will include data associated to preventative and corrective maintenance tasks. Additionally, the resources required to complete the maintenance tasks will be identified. These resources include spare parts, consumables, Special Tooling and Test Equipment (STTE), and personnel.

6.4.2. For a future RFP, support analysis data will be required to be structured as a Logistic Support Analysis Record (LSAR). The LSAR Database normally includes the following items:

6.4.2.1. All components (including repairable parts and consumables);

6.4.2.2. Manufacturer information, total Line Replaceable Units (LRU)/Spares and Unit Costs Estimate;

6.4.2.3. Recommended Spares/Parts. The recommended Spares/Parts will be used to create the Recommended Spares Parts List (RSPL); and

6.4.2.4. Indicate if item is a Maintenance Significant Item (MSI).

6.4.3. The Logistic Support Analysis Data listed below are populated in the LSAR if identified as a Maintenance Significant Item:



- 6.4.3.1. Failure Rate;
- 6.4.3.2. Mean Time to Repair (hours);
- 6.4.3.3. Shelf Life (months);
- 6.4.3.4. Maintenance Concept; and,
- 6.4.3.5. Preventative Maintenance Frequency.

#### 6.5. Initial Provisioning, Spare Parts, Special Tooling & Test Equipment

- 6.5.1. Industry will be asked to recommend an initial scaling of spare components and subsystems, in sufficient quantities to support the determined availability of the fleet. The scaling of spare components will reflect the data within the LSA.
- 6.5.2. Spare Parts. The initial provisioning period will allow data to be recorded in terms of performance metrics and spare parts usage. This data will be used to properly formulate the basis of the sustainment requirements for the remaining life of the fleet.
- 6.5.3. Spare Parts Management. DND is exploring the capabilities of Industry to perform spare parts management, such as warehousing, maintaining and distribution.
- 6.5.4. Special Tooling and Test Equipment (STTE). The Original Equipment Manufacturer (OEM) will be expected to identify and provide all STTE required to service, diagnose and repair the fleet as outlined in the LSA.

#### 6.6. Contracted Maintenance and Training Services

- 6.6.1. Contracted Maintenance. DND wants to evaluate the option to contract maintenance either as a whole, or as a shared responsibility between the Contractor and the CAF. The provider has to inform DND on their capacity and interest on each option.
- 6.6.2. Operator Training. When procuring a new fleet or capability, operator training is typically coordinated up front as part of the initial procurement. This allows the CAF to operate the fleets upon initial delivery. Initial Cadre Training is provided by the Contractor to a specific quantity of operators and operator-trainers. Ongoing training may also be delivered as part of a long-term support contract if required. DND is exploring the capabilities of industry to provide ongoing operator training as part of a long-term support contract if





required.

6.6.3. **Technician Training.** When procuring a new fleet, technician training is also typically coordinated up front as part of the initial procurement. This allows the CAF to maintain the fleets upon initial delivery. Initial Cadre Training is provided by the Contractor to a specific quantity of maintainers and maintainer-trainers. DND is exploring the capabilities of industry to provide ongoing technician training as part of a long-term support contract if required.

6.7. **Field Service Representative (FSR).** FSRs are individual technician representatives of a supplier to provide maintenance or training services at a site chosen by the CAF. Depending on the fleet, FSR services may be requested at a variety of CAF locations, potentially world-wide or in theatre of operations.

6.7.1. **Maintain.** FSRs could be employed to carry out maintenance tasks and technical investigations in order to sustain the fleet at the predetermined availability.

6.7.2. **Train.** FSRs could be employed across Canada at the major base hubs to train a predetermined number of operators and/or technicians.

6.7.3. **Repair and Overhaul.** FSRs could be employed across Canada at the major base hubs to undertake or assist in repair and overhaul activities.

6.8. **Service Facilities.** Support could be provided at Contractor facilities. DND is also seeking information from industry on the capabilities to complete repairs, training, and Repair and Overhaul (R&O) in commercial service facilities both within Canada and internationally.

6.9. **Engineering Services**

6.9.1. DND is exploring the capabilities of industry to carry out engineering and technical tasks, which are critical to continuously ensuring availability of the system.

6.9.2. Work may include modifications, system/subsystem/component reliability assessments or failure analysis. Mechanisms for such tasks might include: Technical Investigation and Engineering Support (TIES) contract; Special Investigations and Technical Studies (SITS)





contract; Additional Work Request (AWR); or In-Service Support (ISS) contracts.

6.10. Embedded Contractors. DND is exploring the ability of industry to work embedded in DND facilities in order to enhance communication and provide responsive technical solutions.

6.11. Technical Data Package

6.11.1. Communication. Access to Technical Publications and OEM updates/modifications is critical for the effective management of any fleet.

6.11.2. Provision of Technical Publications. There will be a requirement to provide OEM technical publications such as operator manuals, preventative & corrective maintenance manuals, and available commercial part numbering listings (as procured by OEM).

6.11.3. DND is exploring the capabilities of industry to provide updates to technical publications over the intended 20-year life-cycle of the proposed solutions.

6.11.4. DND is exploring the capabilities of industry to provide Technical Drawing Packages.

6.12. Configuration & Obsolescence Management

6.12.1. There will be a requirement to conduct Configuration Management (CM) to establish and maintain consistency of the performance, functional, and construction attributes of the deliverables with the requirements, design, and operational information.

6.12.2. DND will investigate the capabilities of industry so that Configuration Management services can be provided during the estimated 20-year life-cycle of the proposed solutions.

6.12.3. There may be a requirement to conduct first article inspection and pre-delivery inspections.

6.12.4. Obsolescence Management. There will be a requirement to provide obsolescence management during the initial provisioning period, which is expected to include but is not limited to high risk components/subsystems list and obsolescence management issues reports (as required). DND is exploring the capabilities of industry to provide obsolescence management services, to ensure that the effects of obsolescence in terms of equipment





support, effectiveness and support costs are mitigated by a combination of reactive and proactive management activities.

- 6.12.5. Hardware. Pre-Determined Upgrades. It is anticipated that it will not be cost effective to maintain a portion of the hardware for the 20-year lifecycle based on low maintainability and changing hardware requirements for the software solutions. DND is exploring the capabilities of industry to provide hardware upgrades at pre-determined intervals for non-maintainable equipment.
  - 6.12.6. Software. Any software provided must be given due consideration with respect to configuration management, incremental improvements, and obsolescence management such that it is able to keep pace with current technology and user expectations.
- 6.13. Testing. There will be a requirement to prove defined shelter capabilities in a test setting. This may include, but not limited to:
- 6.13.1. DND User Trials. Test & Evaluation to demonstrate that the system meets the requirements and specifications; and
  - 6.13.2. Contractor Capability Testing. Testing may include but is not limited to: start-up, operate, conduct various tasks, extreme weather operations.
- 6.14. Preliminary Concept of Sustainment
- 6.14.1. Maintenance. First line maintenance is performed in expeditionary operations by CAF technicians. Domestically, CAF technicians may be supported by FSRs. Third and fourth line maintenance is anticipated to be conducted by contractor/FSR both domestically and on operations. An initial period of maintenance support to be provided by the Contractor, with an additional support contract to be considered separately over the lifecycle of the shelter. Maintenance of any simulation system is anticipated to be provided by the Contractor should it have unique maintenance requirements from the CJIM system.
  - 6.14.2. Supply. DND may acquire two years spares and technical stores to the appropriate CAF depot(s). The depot(s) will hold an additional operational stock of at least 30 days of supply of parts, but options for contractor housing of spares and technical stores delivery



will be explored.

- 6.14.3. ILS Services. It is expected that configuration management, engineering support, technical data packages, and operator and maintenance manuals will be part of a long-term service contract. Access to data for logistic support analysis will be essential, as will the integration of fleet data with the CAF's SAP enterprise resource planning tool, Defence Resource Management Information System (DRMIS).
  - 6.14.4. Lifecycle and R&O. The life expectancy of the equipment is 20 years. To meet this, it is estimated that non-maintainable hardware be replaced on a 5-year interval.
  - 6.14.5. Software. The preferred software support system will be a subscription model services that ensures improvements and continued integration with CAF and allied systems over its lifecycle.
  - 6.14.6. Training. Initial cadre training for both operators and maintenance personnel to be developed and delivered by contractor, with training materials transferred to the CAF to be adapted for the CAF's use. The number of serials will depend on the length and complexity of the training package, but the end state will be achieved when training responsibilities are transferred successfully to Army and/or long-term arrangements are made for contracted training (if needed). Simulators may be part of the training solution for operators and there may be a requirement for at least one maintenance training aid.
- 6.15. Key Performance Indicators (KPIs) by which sustainment may be measured. The following are common metrics that will be considered in the measurement of sustainment system performance. While the metrics below emphasize mean values, other measures of central tendency may be examined (i.e. median, mode) if appropriate.
- 6.15.1. Mean time to repair (MTR). The mean time to conduct a corrective maintenance action by technicians.
  - 6.15.2. Mean operating time between failures (MTBF). For a stated period in the life of a functional unit, the mean value of the lengths of operating time between consecutive failures under stated conditions.



- 6.15.3. Mean downtime (MDT). Downtime consists of all preventive and corrective servicing and repair time plus time awaiting parts or labour and other administrative delays.
- 6.15.4. Uptime. Represents the time the equipment is operated and available for use.
- 6.15.5. Mean time to deliver spare parts (MTDSP). Mean time from when order placed in DRMIS to delivery of part to appropriate maintenance organization.
- 6.15.6. Mean time between maintenance (MTBM). For a stated period in the life of a functional unit, the mean length of operating time between maintenance. MTBF only considers preventative and corrective maintenance performed by technicians, not that which is considered operator maintenance.
- 6.15.7. Availability. The probability that an item is in operable and committable state at the start of a mission when the mission is called for at an unknown (random) time. Availability will be quantified availability in three ways:

6.15.7.1. Inherent availability. This expression of availability is a characteristic of the equipment being maintained and does not reflect on the maintenance environment.

$$\text{Inherent availability} = \frac{MTBF}{MTBF + MTR}$$

6.15.7.2. Achieved availability. This measure reflects the reliability and maintainability of the equipment as it only includes preventive and corrective maintenance activities.

$$\text{Achieved availability} = \frac{MTBM}{MTBM + MDT}$$

Operational availability reflects on the maintenance environment as well as the equipment. This is the measure of availability which gives the true availability of the system for operators.

$$\text{Operational availability} = \frac{Uptime}{Downtime + Uptime}$$





## Appendix 1 to Annex A

### Application of the Industrial and Technological Benefits (ITB) Policy

The Industrial and Technological Benefits (ITB) Policy may be applied on the **Combined Joint Intelligence Modernization (CJIM) project**. Engagement with industry through the Request for Information (RFI) will help determine the application of the ITB Policy and how Canada could leverage opportunities for economic benefit through this procurement.

#### **The ITB Policy including Value Proposition**

The ITB Policy is a powerful investment attraction tool and companies awarded defence procurement contracts are required to undertake business activities in Canada equal to the value of the contract. The ITB Policy encourages companies to establish or grow their presence in Canada, strengthen Canada's supply chains, and develop Canadian industrial capabilities.

The goal of the ITB Policy is to support the long-term sustainability and growth of Canada's defence sector, including small and medium-sized enterprises in all regions of the country, to enhance innovation through R&D in Canada, to support skills development and training, and to increase the export potential of Canadian-based firms. The ITB Policy includes the Value Proposition (VP), which requires bidders to compete on the basis of the economic benefits to Canada associated with its bid. Winning bidders are selected on the basis of price, technical merit and their VP. VP commitments made by the winning bidder become contractual obligations in the ensuing contract.

#### ***Key Industrial Capabilities:***

To maximize the economic impact that can be leveraged through the VP, Canada will look to use the ITB Policy to motivate defence contractors to invest in [Key Industrial Capabilities](#) (KICs). The KICs represent areas of emerging technology with the potential for rapid growth and significant opportunities, established capabilities where Canada is globally competitive, and areas where domestic capacity is essential to national security.

Based on initial analysis of the CJIM project, this procurement encompasses the KICs of **Advanced Materials** and **Defence Systems Integration** where Canada has world leading capabilities.

The definitions for the relevant KICs for this project are:





### ***Advanced Materials***

Includes a range of materials and related production processes that yield significant advances in operational capability and/or cost-efficiency of equipment used in military operations. These advances include reduced weight, increased strength and resilience, lower observability, and other attributes. The materials envisioned span a wide range of technologies, including (but not limited to) composite structures (includes aerostructures), textiles, metals, plastics, ceramics, and advanced feedstocks for additive manufacturing. The related production processes used in generating the materials include additive manufacturing, 3-D printing, advanced machining, and others. The materials have broad application across military aerospace, land, marine and space domains, as well as in commercial sectors.

### ***Defence Systems Integration***

Design and integration of complex military systems that hinge on the seamless linking together of multiple sub-systems to yield an effective operational capability. These capabilities span various military platforms and enable the operation and management of weapons, defensive systems, command and control systems, sensors, decision support systems, electronic warfare devices and a platform's core sub-systems in a tightly coordinated fashion essential under highly stressing combat conditions. These systems need to present information to their operators stemming from multiple sources in a manner that is understandable, secure, and supports decision-making in a complex environment. This definition does not include the various constituent systems (e.g., missile launching systems, radars, electronic warfare systems, etc.) that the work of defence systems integration aims to combine into a cohesive whole. Rather, the definition focuses on the skills and other capabilities needed to perform the integration work, and to create the user interface that is needed in such complex mission systems.

### **CJIM ITB/VP Industry Engagement Questions**

#### **Defence Sector:**

The ITB Policy seeks to promote economic development and long-term sustainment of Canadian businesses engaged in the manufacturing and delivery of products and services used in government defence and security applications.

1. Based on the project scope put forward by the DND, describe what work activities your company would foresee undertaking in Canada for the production and sustainment of the CJIM project? Please specify which of the CJIM deliverables your company may provide.





2. What are the highest value areas in which Canadian capabilities could be used to support the CJIM system?
  - a. As part of your response, please highlight work activities your company would foresee performing in Canada in the KICs identified above.

**Supplier Development:**

The ITB Policy seeks to improve the competitiveness of Canadian industry by encouraging Canadian industrial participation and the scaling up of Canadian companies including small and medium-sized businesses (SMB).

3. The ITB Policy requires that at least 15 percent of the contractor’s ITB obligation (equal to the value of the contract) be represented by work with Canadian SMBs with less than 250 employees. To what extent can you commit to a SMB requirement of over 15 percent in order to nurture the development of Canadian SMBs within the defence sector (includes both direct work on this procurement and indirect work in other business areas)?
4. As a result of the CJIM project, please indicate what new supply chain opportunities could be made available to Canadian suppliers (production and sustainment). Please include in your response information on:
  - a. What activities should be perceived as providing the highest value to Canada.
  - b. Which opportunities could be specifically targeted at Canadian SMBs.
  - c. Supplier development opportunities that could be performed in the KICs identified above.
  - d. Any foreseen constraints which may impact SMB opportunities to provide solutions for the CJIM project.

**Skills Development and Training:**

The ITB Policy fosters the development and sustainment of a diverse, talented, and innovative Canadian workforce through access to training, education, opportunities and programs.

5. What types of Skills Development and Training investments would produce the maximum benefit for Canadians (defence or commercial sector)?
  - a. What Skills Development and Training opportunities are available in the KICs identified above?

Examples:

- i. Work integrated learning programs (e.g., co-operative education; work placements);
- ii. Apprenticeship programs;



- iii. A new or existing skills development program at or through a post-secondary institution;
- iv. Support for security certifications (e.g.: Top Secret, ITAR) or cybersecurity compliance certifications for Canadian companies.

### **Research and Development (R&D):**

The ITB Policy promotes scientific investigation that explores the development of new goods and services, new inputs into production, new methods of producing goods and services, or new ways of operating and managing organizations.

6. What direct or indirect R&D investments could Canada motivate bidders to make as a result of this procurement?
  - a. As part of your answer, please identify to what extent these R&D investments could align with the KICs listed above.
7. Recognizing the role that post-secondary institutions and public research institutes play in fostering innovation in Canada, please describe what potential direct or indirect opportunities your company foresees undertaking in Canada with these organizations and what specific research areas you would pursue?
8. Is there potential to invest in research and development partnerships with Canadian SMBs and start-up companies, including funding for late-stage R&D and commercialization of innovative products or services?

### **Export:**

The ITB Policy promotes the ability of Canadian companies, including SMBs, to successfully tap into export markets, thereby increasing their productivity, and competitiveness in the global market.

9. Please describe any high value export opportunities from Canada, whether commercial or defence, which could be leveraged as a result of this procurement.
  - a. As part of your answer, please identify to what extent these export opportunities could align with the KICs listed above.
10. Is it feasible to secure sufficient intellectual property rights and an exclusive global product mandate to export from your Canadian-based operations, including subsidiaries and supply chain partners?





**Other questions:**

11. Are there other relevant KICs which align with the work to be conducted for the CJIM project? If yes, please indicate which KICs should be considered and why. As part of your response, please describe how the proposed KICs would enhance the opportunities that could be leveraged through the Value Proposition for Canadian industry.
12. With consideration to technical merit and price, the Value Proposition typically has a weight of no less than 10 percent of the overall bid evaluation. Please submit your views on the weighting of the Value Proposition for the CJIM project.

**In your response, please include feedback on proposed weightings for each Value Proposition pillar (i.e. Defence Sector, Supplier Development, Skills Development and Training, Research and Development, and Exports).**



## Appendix 2 to Annex A

### Acronyms, Abbreviations and Terminology

ABCANZ	America, Britain, Canada, Australia, and New Zealand Armies
ACA	Airspace Coordination Area
ACIS	Army Communication and Information Systems Specialist
AGM	Attack Guidance Matrix
AI	Artificial Intelligence
ArtyMIS	Artillery Managed Information System
ASCA	Artillery Systems Cooperation Activities
ASCC	Airspace Coordination Centre
ATACMS	Army Tactical Missile System
ATAK	Android Tactical Assault Kit
ATG	Artillery Tactical Group
AWR	Additional Work Request
BC TAC	Battery Commander Tactical Command Post
BDZ	Base Defense Zone
C2	Command and Control
C4ISR	Command, Control, Communications, Computers, Intelligence, Surveillance and Reconnaissance



CA	Canadian Army
CAF	Canadian Armed Forces
CAS	Close Air Support
CDE	Collateral Damage Estimate
CFB	Canadian Forces Base
CFL	Coordinated Fire Lines
CFTO	Canadian Forces Technical Order
CM	Configuration Management
COP	Common Operating Picture
CO TAC	Commanding Officer Tactical Command Post
CSNI	Consolidated Secret Network Infrastructure
DND	Department of National Defence
DGMS	Digital Gun Management System
DRMIS	Defence Resource Management Information System
DTED	Digital Terrain elevation Data
EMC	Electromagnetic Compatibility
EMI	Electromagnetic Interference
EO	Electronic-Optronic
EO/IR	Electro-Optical/Infra-Red



EPLRS	Enhanced Position Location Reporting System
EW	Electronic Warfare
EWCC	Electronic Warfare Control Center
FD	Force Development
FE	Force Employer
FG	Force Generator
FOC	Final Operational Capability
FP&R	Force Posture & Readiness
FP	Force Protection
FS DA	Federal Sustainability Development Act
FS DS	Federal Sustainability Development Strategy
FSR	Field Service Representative
FVEY	Five Eyes
GDP	Gross Domestic Product
GEO	Geospatial
GEOINT	Geospatial Intelligence
GC	Government of Canada
GPS	Global Positioning System
HLMRs	High Level Mandatory Requirements
HQ	Headquarters
HQSS	Headquarters Shelter System
HLVW	Heavy Logistics Vehicle Wheeled
HVAC	Heating, Ventilation and Air Conditioning



HW	Hardware
IAW	In Accordance With
ICE/ Fighting Order	Fighting Order
ICT	Initial Cadre Training
IER	Information Exchange Requirement
IETM	Interactive Electronic Technical Manual
ILS	Integrated Logistics Support
IMINT	Information Intelligence
IM/IT	Information Management/ Information Technology
IOC	Initial Operational Capability
IOT	in order to
IP	Investment Portfolio
IPB/IPOE/ JIPOE	Intelligence Plan Battlespace
IRPDA	Independent Review Panel for Defence Acquisition
IPCP	Investment Plan Change Proposal
IRM	Intelligence Requirement Management
ISO	International Organization for Standardization
ISR	Intelligence, Surveillance & Reconnaissance
ISS	In Service Support
IST	Intelligence Support Team
ISTAR	Intelligence, Surveillance, Target Acquisition and Reconnaissance
ISTAR C2	Intelligence, Surveillance, Target Acquisition and Reconnaissance Command and Control
IT	Information Technology
JASIC	Joint All Source Intelligence Centre



JDHQ	Joint Domain Headquarters
JDHQSRM	Joint Domain Headquarters Signals Regiment Modernisation
JDN	Joint Doctrine Note
JICAC	Joint Intelligence Collection and Analysis Capability
JIMP	Joint and Inter-Agency, Multinational and Public partners
JITC	Joint Intelligence Training Centre
JSR	Joint Signals Regiment
LCSS	Land Communications Support System
LEED	Leadership in Energy and Environmental Design
LFIC	Land Force Intelligence Centre
LO	Liaison Officer
MCC	Maritime Control Center
MCE	Mapping and Charting Establishment
MET	Meteorological
MIL-STD	Military Standard
MRT	Mobile Repair Team
MOTS/ COTS	Military off-the-Shelf/ Commercial off-the-Shelf
MND	Minister of National Defence
NAI	Named Area of Interest
NATO	North Atlantic Treaty Organisation
NBCC	National Building Code of Canada
NDSOD	National Defence Security Orders & Directives
NECB	National Energy Code of Canada for Building
NFPA	National Fire Protection Association

NIC	National Intelligence Centre
NSE	National Support Element
NSE	National Security Exception
NS-SCC	National Security Special Contracting Caveat
NORAD	North American Aerospace Defense Command
OC	Officer Commanding
OEM	Original Equipment Manufacturer
OGD	Other Government Departments
OPCOM	Operational Command
OPCON	Operational Control
O&M	Operations and Maintenance
PCRA	Project Complexity and Risk Assessment
PIP	Project Implementation Plan
PED	Processing, Exploitation and Dissemination
PLGR	Precision Lightweight GPS Receiver
PMO	Project Management Office
PSOR	Preliminary Statement of Requirement
PSPC	Public Services and Procurement Canada
PRICIE +G	Personnel, R&D/ Ops Research, Infrastructure & Organization, Concepts, Doctrine & Collective Training, IT Infrastructure, Equipment, Supplies & Services + Gender Based Analysis
PY	Person Year
QM	Quartermaster
QSTAG	Quadripartite Standardization Agreement
R2HR	Road to High Readiness





RAMD	Reliability, Availability, Maintainability and Durability
RCAF	Royal Canadian Air Force
RCEME	Royal Canadian Electrical and Mechanical Engineers
RCN	Royal Canadian Navy
RFI	Request for Information
RFP	Request For Proposals
ROM	Rough Order of Magnitude
RP	Regimental Police
RP Ops OC	Real Property Operations
SA	Situational Awareness
SCD	Strategic Context Document
SCIF	Sensitive Compartmented Intelligence Facility
SLA	Service Level Agreement
SIGINT	Signals Intelligence
SOF	Special Operations Forces
SOR	Statement of Operational Requirements
SOU	Statement of Understanding
STANAG	Standardization Agreement (NATO)
SIGINT	Signals Intelligence
SJS	Strategic Joint Staff
SOIC	Special Operation Intelligence Center
SOF	Special Operation Forces
SOR	Statement of Operational Requirements
SSC	Shared Services Canada

SSE	Strong, Secure, Engaged
SW	Software
TAPV	Tactical Armoured Patrol Vehicle
TAV	Technical Assistance Visit
TBITS	Treasury Board Information & Technology Standard
TCCS	Tactical Command and Control System
TDP	Technical Data Package
TEMS	Tent Expandable Modular System
TF	Task Force
TS	Top Secret
TSE	Top Secret Environment
TBG IST	Theatre Battle Group Intelligence Support Team
TO&E	Table of Organization & Equipment
UD/ BFA	Universal Design/ Barrier Free Access
ULC	Underwriter Laboratories of Canada
UN	United Nations
US IC	United States Intelligence Community
VCDS	Vice-Chief of Defence Staff

## Terminology

To ensure a common understanding of the terminology used, the following definitions for terms used throughout are provided below. To ensure standardization, they are quoted verbatim from the source.

1. Allocation Baseline: The initial approved allocated configuration identification that orientates documentation for a CI, describes the functional and interface features that are allocated from those of the higher level CI, and describes the verification to demonstrate that the specified





features that can be achieved. See also Configuration Baseline, Functional Baseline, and Product Baseline.

2. **Analysis:** An element of verification that utilizes established technical evaluation or mathematical models or simulations, algorithms, calculations, charts, graphs, representative data, or other scientific principles and procedures to provide evidence that stated requirements are met. See also Certification, Demonstration, Inspection, Test, and Verification.
3. **Baseline:** A configuration identification document or set of such documents formally designated (by the Government) and fixed at a specific time during a configuration item's life cycle. They are established at those points in the project where it is necessary to define a formal departure point for control of future changes in performance, design, production, and related technical requirements. For configuration management purposes there are three baselines, which are normally established chronologically as follows: functional baseline, allocation baseline, and product baseline.
4. **Certification:** An element of verification that utilizes already existing, previously completed, detailed, and customer approved qualification tests, including procedures and results, for products or components of products determined to be Military-off-the-Shelf (MOTS) or Commercial-off-the-Shelf (COTS), to provide evidence that the stated requirements are met. See also Analysis, Demonstration, Inspection, Test, and Verification.
5. **Configuration Baseline:** A fixed reference established by defining and recording the approved configuration documentation for a system or an individual CI, including related documentation, at a milestone event or at a specified point in the life cycle, thus offering protection from unwarranted and unwanted changes. See also Allocated Baseline, Functional Baseline, and Product Baseline.
6. **Configuration Item (CI):** An item identified by its functional and physical characteristics for the purpose of monitoring, change control and auditing.
7. **Demilitarization:** The total destruction of an item through action such as mutilation, smelting, cutting, tearing, scratching, breaking, punching, and neutralizing. Total destruction means that an item cannot be restored or repaired to a useable condition and that no information on the characteristics, performance or manufacturing of the item can be extracted.



8. **Demonstration:** An element of verification consisting of actual operation, adjustment, or re-configuration of items to provide evidence through observation under specific scenarios that the requirements are met. The demonstration may require some simple quantitative measurements such as time to perform tasks or dimensions. See also Analysis, Certification, Inspection, Test, and Verification.
9. **Functional Baseline:** The approved documentation describing the performance characteristics (functional, inter-operability, and interface features) of a system or top level CI and the verification to demonstrate that the performance requirements can be achieved. See also Allocated Baseline, Configuration Baseline, and Product Baseline.
10. **Functional Configuration Audit:** Verifies the CIs performance against the approved Functional and Allocated Baselines. See also Physical Configuration Audit.
11. **Inspection:** An element of verification not involving the use of special tools and gauges. The inspection is an examination of a product design, product, process or installation. See also Analysis, Certification, Demonstration, Inspection, Test and Verification.
12. **In-Service Support (ISS):** ISS means all activities, including, but not limited to, engineering services (such as maintenance, repair, test and upgrade), logistics (such as parts supply, documentation and training) and related management functions, necessary to maintain a CAF platform throughout its service life.
13. **Product Baseline:** The initial approved or conditionally approved product configuration identification that describes the configuration of a CI during production, utilization, and support phases of the equipment life cycle. See also Allocated Baseline, Configuration Baseline, and Functional Baseline.
14. **Physical Configuration Audit:** A formal examination of the as-built configuration of a CI against its design documentation. Functional and Physical Configuration Audits are considered complete when Industry has demonstrated to Canada the satisfactory resolution of all observations and actions resulting from these audits. See also Functional Configuration Audit.
15. **Sensitive Compartmented Information Facility (SCIF)<sup>1</sup>:** A Sensitive Compartmented Information Facility (SCIF) is a facility that is an area, room, group of rooms or installation, which meets the

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<sup>1</sup> National Defence Security Orders and Directives, Standard N



physical security standards where Sensitive Compartmented Information (SCI) may be stored (in approved containers), used, discussed and electronically or manually processed. A SCIF is accredited by the National Special Centre (NSC) and may be a permanent or temporary installation.

16. System: Any combination of facilities, equipment, personnel, procedures and communications intended for a specific purpose.
17. Temporary SCIF (T-SCIF)<sup>2</sup>: A Temporary SCIF (T-SCIF) is a non-permanent SCIF that is required for a specified length of time in order to meet tactical, emergency or immediate operational requirements. A T-SCIF has the appropriate security measures in place and has been accredited by the Canadian Forces Intelligence Command (CFINTCOM)/NSC for physical security to receive, store, process, and discuss SCI. T-SCIFs can be a conference or exercise venue, but there are typically four types:
  - a. Ground-based SCIF (T-SCIF) may consist of a hardened structure (e.g. buildings, bunkers) or a semi-permanent structure (e.g. truck-mounted or towed military shelters, prefabricated buildings or tents);
  - b. Airborne-SCIF (A-SCIF) is a designated area aboard a Canadian aircraft;
  - c. Seaborne-SCIF (S-SCIF) is a designated area or room aboard a Canadian vessel; and
  - d. Subsurface-SCIF (Sub-SCIF) is a designated area aboard a Canadian submarine (unless specifically identified, the term S-SCIF is used to refer to both S-SCIF and Sub-SCIF).
18. Technician Maintenance: Corrective and preventive maintenance tasks, by repair and replacement of parts or assemblies, equipment calibration, that may require STTE to complete this maintenance, where task duration is less than four (4) hours.
19. Verification: An action performed to establish and to document that a product, service, or system meets the requirements of the Contract. See also Analysis, Certification, Demonstration, Inspection, and Test.

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<sup>2</sup> Ibid

## Appendix 3 to Annex A

### Applicable Documents

REFERENCE	PROMULGATION	REFERENCE TITLE
CANADIAN SECURITY STANDARDS AND INSTRUCTIONS		
CANADIAN ARMY ORDERS 21-4	JUN 2014	PAINT AND MARKING POLICY FOR LAND EQUIPMENT
NON DND/CAF STANDARDS AND SPECIFICATIONS		
REFERENCE	PROMULGATION	REFERENCE TITLE
ICD/ICS 705	13 MAR 2020	TECHNICAL SPECS. FOR CONSTRUCTION AND MANAGEMENT OF SENSITIVE COMPARTMENTED INFORMATION FACILITIES
ISO 668:220	2020	SERIES 1 FREIGHT CONTAINERS- CLASSIFICATION, DIMENSIONS, AND RATINGS
ISO 6346:1995	1995	FREIGHT CONTAINERS — CODING, IDENTIFICATION AND MARKING
ISO 1161:2016	2016	SERIES 1 FREIGHT CONTAINERS — CORNER AND INTERMEDIATE FITTINGS — SPECS.
ISO 1496-1:2013	2013	SERIES 1 FREIGHT CONTAINERS — SPECIFICATION AND TESTING — PART 1: GENERAL CARGO CONTAINERS
NATO STANAG 4370	AECTP-200 Edition 1 AECTP-230 Edition 1	ENVIRONMENTAL TESTING



MIL-STD-209 K	22 FEB 2005	INTERFACE STANDARD FOR LIFTING AND TIEDOWN PROVISIONS
MIL-STD-461 G	11 DEC 2015	REQUIREMENTS FOR THE CONTROL OF ELECTROMAGNETIC INTERFERENCE CHARACTERISTICS OF SUBSYSTEMS AND EQUIPMENT
MIL-STD-810 H	31 JAN 2019	ENVIRONMENTAL ENGINEERING CONSIDERATIONS AND LABORATORY TESTS
MIL-STD-1366 E	31 OCT 2006	TRANSPORTABILITY CRITERIA
MIL-STD-1472 H	15 SEP 2020	HUMAN ENGINEERING
MIL-STD-1474 E	15 APR 2015	NOISE LIMITS
ITSG-02	AUG 1999	CRITERIA FOR THE DESIGN, FABRICATION, SUPPLY, INSTALLATION AND ACCEPTANCE TESTING OF WALK-IN, RADIO-FREQUENCY-SHIELDED ENCLOSURES (ITSG-02), COMMUNICATIONS SECURITY ESTABLISHMENT
ASTM G101 - 04	2020	STANDARD GUIDE FOR ESTIMATING THE ATMOSPHERIC CORROSION RESISTANCE OF LOW-ALLOY STEELS
		CSA CANADIAN ELECTRICAL CODE
		FCC FEDERAL COMMUNICATION COMMISSION
		EN EUROPEAN ELECTRICAL CERTIFICATION



**ANNEX B INDUSTRY RESPONSE TEMPLATE  
BUSINESS INFO**

Business Name	
Business Address	
Web	
Procurement Business Number	
Controlled Goods Registration	
Facility Security Level	

Points of Contact	Name	Email Address	Tel #
Chief Executive Officer			
Chief Financial Officer			

## Response to Appendix 1 to Annex A - CJIM Industrial and Technological Benefits

Please read the entirety of the RFI before answering. Provide your answers in the blue cells in column D, providing as much detail as possible.

<b>BUSINESS NAME:</b>	
<b>ITB/VP Industry Engagement QUESTIONS</b>	<b>ANSWERS</b>
<p><b>Defence Sector:</b> The ITB Policy seeks to promote economic development and long-term sustainment of Canadian businesses engaged in the manufacturing and delivery of products and services used in government defence and security applications.</p>	
<p>1. Based on the project scope put forward by the Department of National Defence, describe what work activities your company would foresee undertaking in Canada for the production and sustainment of the CJIM project? Please specify which of the CJIM deliverables your company may provide.</p>	
<p>2. What are the highest value areas in which Canadian capabilities could be used to support the CJIM system? As part of your response, please highlight work activities your company would foresee performing in Canada in the KICs identified.</p>	
<p><b>Supplier Development:</b> The ITB Policy seeks to improve the competitiveness of Canadian industry by encouraging Canadian industrial participation and the scaling up of Canadian companies including small and medium-sized businesses (SMB).</p>	
<p>3. The ITB Policy requires that at least 15 percent of the contractor's ITB obligation (equal to the value of the contract) be represented by work with Canadian SMBs with less than 250 employees. To what extent can you commit to a SMB requirement of over 15 percent in order to nurture the development of Canadian SMBs within the defence sector (includes both direct work on this procurement and indirect work in other business areas)?</p>	

<p>4 As a result of the CIJM project, please indicate what new supply chain opportunities could be made available to Canadian suppliers (production and sustainment). Please include in your response information on:</p> <ul style="list-style-type: none"> <li>a. What activities should be perceived as providing the highest value to Canada.</li> <li>b. Which opportunities could be specifically targeted at Canadian SMBs.</li> <li>c. Supplier development opportunities that could be performed in the KICs identified above.</li> <li>d. Any foreseen constraints which may impact SMB opportunities to provide solutions for the CIJM project.</li> </ul>	
<p><b>Skills Development and Training:</b> The ITB Policy fosters the development and sustainment of a diverse, talented, and innovative Canadian workforce through access to training, education, opportunities and programs.</p>	
<p>5 What types of Skills Development and Training investments would produce the maximum benefit for Canadians (defence or commercial sector)?</p> <p>5 a) What Skills Development and Training opportunities are available in the KICs identified?</p> <p>Examples:</p> <ul style="list-style-type: none"> <li>i. Work integrated learning programs (e.g., co-operative education; work placements);</li> <li>ii. Apprenticeship programs;</li> <li>iii. A new or existing skills development program at or through a post-secondary institution;</li> <li>iv. Support for security certifications (e.g.: Top Secret, ITAR) or cybersecurity compliance certifications for Canadian companies, especially small and medium-sized businesses.</li> </ul>	
<p><b>Research and Development (R&amp;D)</b> The ITB Policy promotes scientific investigation that explores the development of new goods and services, new inputs into production, new methods of producing goods and services, or new ways of operating and managing organizations.</p>	
<p>6. What direct or indirect R&amp;D investments could Canada motivate bidders to make as a result of this procurement? As part of your answer, please identify to what extent these R&amp;D investments could align with the KICs listed.</p>	

<p>7. Recognizing the role that post-secondary institutions and public research institutes play in fostering innovation in Canada, please describe what potential direct or indirect opportunities your company foresees undertaking in Canada with these organizations and what specific research areas you would pursue?</p>	
<p>8. Is there potential to invest in research and development partnerships with Canadian SMBs and start-up companies, including funding for late-stage R&amp;D and commercialization of innovative products or services?</p>	
<p><b>Export:</b> The ITB Policy promotes the ability of Canadian companies, including SMBs, to successfully tap into export markets, thereby increasing their productivity, and competitiveness in the global market.</p>	
<p>9. Please describe any high value export opportunities from Canada, whether commercial or defence, which could be leveraged as a result of this procurement. As part of your answer, please identify to what extent these export opportunities could align with the KICs listed.</p>	
<p>10. Is it feasible to secure sufficient intellectual property rights and an exclusive global product mandate to export from your Canadian-based operations, including subsidiaries and supply chain partners?</p>	
<p><b>Other questions:</b></p>	
<p>11. Are there other relevant KICs which align with the work to be conducted for the CIJM project? If yes, please indicate which KICs should be considered and why. As part of your response, please describe how the proposed KICs would enhance the opportunities that could be leveraged through the Value Proposition for Canadian industry.</p>	
<p>12. With consideration to technical merit and price, the Value Proposition typically has a weight of no less than 10 percent of the overall bid evaluation. Please submit your views on the weighting of the Value Proposition for the CIJM project. a. In your response, please include feedback on proposed weightings for each Value Proposition pillar (i.e. Defence Sector, Supplier Development, Skills Development and Training, Research and Development, and Exports).</p>	



Mechanical Room					

<b>Transportability: Air, Land and Sea.</b> If new equipment and/or upgrades to existing capabilities inherent to the military are required for integration/interoperability, present them below. Account for serials 1, 2, 3, 21 in Table 1 of Annex A.					
Description	Proposed Solution	Margin of Accuracy		Firm Cost (0 for no cost)	
		+ %	- %		
Air transportability					
Land and sea transportability					
Land and sea intermodal transportability					

**Accreditation:** Meets the minimum requirements required for accreditation to support the storage and processing of Top Secret Special Access (TSSA) material as detailed in the Canadian Security Standards and Instructions (CSSI) and in ITSG-02, Criteria for the Design, Fabrication, Supply, Installation and Acceptance Testing of Walk-in Radio-Frequency-Shielded Enclosures.

Account for serials 4, 9, 24, 33 in Table 1 of Annex A..

Description	Proposed Solution	Margin of Accuracy		Firm Cost (0 for no cost)
		+ %	- %	
Shielding				
Other				

**Environment:** Able to operate anywhere in the world. Suited to operate in climatic conditions ranging from A1 (+49°C) through C2 (-46°C) including M2 (Hot humid) (As defined in the Allied Publication on Testing for Environmental Conditions, AECTP 200). Designed to withstand wind and related atmospheric challenges found in these conditions (freezing rain, blowing snow, sandstorms, driving rain) and operate efficiently without damage to equipment or the shelter itself.

Account for serial 5 in Table 1 of Annex A..

Description	Proposed Solution	Margin of Accuracy		Firm Cost (0 for no cost)
		+ %	- %	
Environment				
Other				



SUSTAINMENT QUESTIONS	
BUSINESS NAME:	
	This column corresponds to <b>Solution:</b> _____ (Add column(s) for multiple Solutions.)

TABLE 1 QUESTIONS	TABLE 1 ANSWERS
	Provide complete answers or cross-reference to where answer is within your Response package

1	<b>Availability</b>	
1.1	What would be reasonable targets for replacement or rebuild of system components when required?	
1.2	Describe the maintenance requirements for your proposed solution.	
1.3	Describe your tracking of KPIs (para 6.15 in Annex A).	
1.4	Describe the ability to track and analyze maintenance data in SAP or equivalent.	
2	<b>Training Capabilities</b>	
2.1	Explain how operator training is typically provided to clients, both at delivery and over the planned life cycle of your proposed solution?	
2.2	Explain how you typically provide maintenance training to clients, both at delivery and over the planned life cycle of your proposed solution?	

2.3	Is a simulator being proposed to conduct operator training? If yes, describe the system and any sustainment requirements unique to your simulator over its expected life cycle of the equipment.	
2.4	What training aids are typically required for maintenance training for your proposed solution? Are there specific qualifications necessary to safely and effectively perform maintenance on your proposed solution?	
2.5	Should 25% of the shelters delivered to Canada be deployed overseas, describe the support equipment and spares recommended to accompany the deployed shelters. Please articulate associated costs.	
3	<b>Planned Preventive and Corrective Maintenance</b>	
3.1	What are your preventive and corrective maintenance strategies for your proposed solution?	
3.2	Describe the maintenance requirements for your proposed solution.	
4	<b>Logistic Support Analysis and Spare Parts Capabilities</b>	
4.1	What is your overall strategy to provide Logistic Support Analysis and the key factors considered for your proposed solution?	
4.2	What would be your key considerations with regard to any sparing during an initial two-year provisioning period and for warehousing, maintenance and distribution thereafter?	
4.3	What Mean Time to Deliver Spare Parts (MTTDSP) would be most cost effective to achieve to the main supply depots in Edmonton and Montreal? What MTTDSP could you achieve to CAF bases in Wainwright, Edmonton, Gagetown, Petawawa, Shilo, and Valcartier?	
4.4	Please describe any Special Tooling and Test Equipment (STTE) required for your proposed solution.	
5	<b>Infrastructure</b>	

5.1	Describe the infrastructure requirements for storage of your solution, including any humidity or temperature controls and volume of space required.	
5.2	Describe any special infrastructure requirements for maintenance of your solution.	
5.3	Describe any special infrastructure requirements for simulators or other training aids.	
6	<b>Service Facility Capabilities</b>	
6.1	For your proposed solution, are you capable of providing maintenance services to support 1st and 2nd line CAF maintenance organizations at facilities in Canada and internationally, and if so, how?	
6.2	For your proposed solution, are you capable of providing 3rd and 4th line maintenance at service facilities in Canada and internationally, and if so, how?	
7	<b>Engineering (System, subsystem, or Component Reliability Assessment / Failure Analysis) Capabilities</b>	
7.1	For your proposed solution, are you capable of and willing to provide Technical Investigations/Studies and Engineering Support for from its delivery, and over its entire lifecycle?	
8	<b>Technical Data Package Capabilities</b>	
8.1	Which technical publications will be provided for your proposed solution?	
8.2	Are you capable of updating and maintaining technical publications during the entire lifecycle of your proposed solution. Are they electronic publications? Are they interactive electronic technical manuals (IETM)? Who would retain ownership? Please provide details.	
8.3	Which if any of your publications are available in both English and French?	
9	<b>Configuration / Obsolescence Management Capabilities</b>	
9.1	Explain how configuration management services are typically provided during the entire lifecycle of your proposed solution.	

9.2	Explain how obsolescence management is typically provided during its entire lifecycle for your proposed solution.	
9.3	Describe the extent to which the components and subsystems that are serialized.	
10	<b>Controlled Goods &amp; Export Restrictions</b>	
10.1	What, if any, ITAR (International Traffic in Arms Regulations), Technical Assistance Agreement, or Controlled Goods Program restrictions exist for any part of your proposed Solution?	
10.2	Does your proposed solution or its components have any export or licence restrictions? If so, list them.	
11	<b>Testing</b>	
11.1	Describe what testing your proposed system has already undergone and by whom. Is the test data accessible to DND?	
12	<b>Software</b>	
12.1	Describe any software requirements for your proposed solution(s).	
12.2	Explain how you typically provide software support services, including any intellectual property rights and licencing, for your proposed Solution both at delivery, and over its entire lifecycle.	
12.3	Is your proposed solution capable of evolving the software system over its entire life cycle in order to support changing capabilities such as security, technology, etc.?	
12.4	How will updates and patches be delivered? How frequent are updates expected?	
12.5	Does the software require licensing? If yes, what type of licensing is required?	
13	<b>Transportability</b>	
13.1	What are the dimensions of a single system while in transport? What is its mass?	

13.2	Can each system be manipulated by technicians or does it require a mechanical device?	
13.3	Are the systems stackable for storage or in transport?	
13.4	Describe any special considerations for transporting the proposed solution on Canadian highways.	
13.5	Describe any special considerations for transporting the proposed solution on highways internationally.	
13.6	Describe special considerations for the proposed solution to be transported off-road.	
13.7	Describe any special considerations for transporting the proposed solution by seafaring vessels.	
13.8	Describe the suitability for the proposed solution to be transported by Canadian military airframes.	
13.9	Describe the suitability for the proposed solution to be transported through intermodal freight.	
13.10	Describe the preparation requirements and time constraints for preparing your solution for transport by each of the above methods, and any time requirements upon disembarkation before the system can be made operational (if any).	
14	<b>Supportability</b>	
14.1	Describe any special maintenance requirements for the system to function under extreme or in adverse conditions. Would any of these conditions require a different maintenance schedule?	

**SUSTAINMENT COSTS**

<b>BUSINESS NAME:</b>	
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Please provide estimated cost per life cycle year to demonstrate sustainment effort curve & major upgrades. Fill out to the maximum number years of life. Add additional cells as required. If margins of accuracy vary over the years, please indicate.

Option	Firm Unit Price per Year (0 = Provide at No Cost)	RECOMMENDED TOTAL POTENTIAL YEARS of LIFE	AVERAGE ANNUAL COST OVER 10 YEARS of LIFE (Total Cost / 10 Yrs)	Margins of Accuracy		Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8	Add columns as required	Year 20
				+	-										
1	\$	#	\$												
2	\$	#	\$												
3	\$	#	\$												

<p>ALL of the following are INCLUDED within the above Solution, unless otherwise indicated. <i>(X) Indicates NOT included in Above Costs</i></p>	
Sustainment Requirements – ILS Services	
Integrated Logistic Support (ILS) Plan	
Logistic Support Analysis (LSA)	
Configuration Management (CM)	
Conduct Configuration Management	
Conduct First Article Inspection	
Conduct Pre-Delivery Inspection	
Conduct Functional Configuration Audit	
Conduct Physical Configuration Audit	
Provide updates to technical publications over the entire life cycle of the deliverable	
Obsolescence Management (OM)	
High Risk Components / subsystems list	
Obsolescence Management Issues Report (as required)	
Cost of proposed solution to track KPI performance metrics	
Initial Provisioning and Supply Services	
Recommended Spare Parts List (RSP), complete with Production Level 3 Drawings & Part Numbers (as described in DNO's reference CFI D-01-400-002/SF-000 Levels of Engineering Drawings)	



