



**RETURN BIDS TO:**  
**RETOURNER LES SOUMISSIONS À:**  
TPSGC.PADivisionQE-APQEDivision.PWGSC@tpsgc

**SOLICITATION AMENDMENT**  
**MODIFICATION DE L'INVITATION**

The referenced document is hereby revised; unless otherwise indicated, all other terms and conditions of the Solicitation remain the same.

Ce document est par la présente révisé; sauf indication contraire, les modalités de l'invitation demeurent les mêmes.

**Comments - Commentaires**

**Vendor/Firm Name and Address**  
**Raison sociale et adresse du**  
**fournisseur/de l'entrepreneur**

**Issuing Office - Bureau de distribution**  
Security and Information Operations Division/Division  
de la sécurité et des opérations d'information  
11 Laurier St. / 11, rue Laurier  
8C2, Place du Portage  
Gatineau  
Québec  
K1A 0S5

<b>Title - Sujet</b> ITI in Sp of C2 Project	
<b>Solicitation No. - N° de l'invitation</b> W8474-18IT01/B	<b>Amendment No. - N° modif.</b> 005
<b>Client Reference No. - N° de référence du client</b> W8474-18IT01	<b>Date</b> 2019-06-19
<b>GETS Reference No. - N° de référence de SEAG</b> PW-\$\$QE-450-27248	
<b>File No. - N° de dossier</b> 450qe.W8474-18IT01	<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 2020-09-30</b>	<b>Time Zone</b> <b>Fuseau horaire</b> Eastern Daylight Saving Time EDT
<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> See herein	<b>Buyer Id - Id de l'acheteur</b> 450qe
<b>Telephone No. - N° de téléphone</b> (819) - ( )	<b>FAX No. - N° de FAX</b> (819) -
<b>Destination - of Goods, Services, and Construction:</b> <b>Destination - des biens, services et construction:</b>	

**Instructions: See Herein**

**Instructions: Voir aux présentes**

<b>Delivery Required - Livraison exigée</b>	<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>

**Amendment 005**

This amendment is raised in order to:

1. Extend the RFI Response Date to 10 July 2019; and
2. Publish the Questions & Answers from the One-on-One sessions.

Question Number	Question	Answer
1-3	<i>Questions #1-3 were published in Amendment 001</i>	
4	<i>Question #4 was published in Amendment 002</i>	
5	We submitted a Letter of Interest (LOI) response but did not receive a response back. Is it a sign that the Department of National Defence (DND) was not interested?	The LOI process did not include provisions for feedback to industry and Canada did not provide responses to industry based on their submissions to the LOI. However, the Request For Information (RFI) process may include further engagement with industry after submission of their responses, if deemed required by Canada.
6	Will the RFI be managed by Public Services and Procurement Canada (PSPC)? Will the pricing information provided by industry be made public?	The RFI process is managed by PSPC. The pricing information provided by industry will be treated as company confidential and will not be made public. It will be used solely for estimation/validation of the anticipated cost of the project.
7	If industry submits an RFI response after the RFI Response Date, will DND still take a look at the proposal?	Canada would prefer to get your response by the requested date; however, the RFI will remain open and industry can continue to submit information for Canada's review until any potential Request for Proposal(s) (RFP) is/are issued. If possible, Canada requests that industry provide what they can by the response date and supplement thereafter so that it can proceed without delay with its analyses.
8	The RFI indicates that this is to be a Canadian-based project; however, our parent company is European. Would industry be able to leverage the North Atlantic Treaty Organization (NATO) expertise of a non-Canadian parent company?	Having your parent company based outside of Canada will not exclude you as a company; however, as indicated in the RFI, there will be some restrictions applied to portions of the procurement based on security requirements.
9	Are there going to be elements mandated through Controlled Goods?	As per section 3.1 of the RFI, it is possible that potential draft and final RFP(s), and any resulting contract(s), could have a requirement for Controlled Goods registration, exemption or exclusion, depending on the nature of the procurement

Question Number	Question	Answer
		activity.
10	How can industry find a list of other industry vendors for partnering?	<p>On the <i>Buy and Sell</i> web page for this project, there is a <i>List of Interested Suppliers</i> that Industry can add their names to.</p> <p>Industry is also encouraged to contact the Regional Development Agencies (RDAs) who are responsible for facilitating business development in their regions, have a solid working knowledge of Canadian defence procurement, and can bridge connections between suppliers and defence contractors. A list of RDAs and their contact information can be found at:  <a href="https://www.ic.gc.ca/eic/site/086.nsf/eng/h_00140.html">https://www.ic.gc.ca/eic/site/086.nsf/eng/h_00140.html</a></p>
11	Does DND intend to act a prime or can industry fulfill that role?	DND recognizes there are benefits to moving more delivery responsibilities to industry, especially since it will be difficult for DND to provide a precise set of technical requirements. If there are benefits to having industry also assume some of the associated risks, then DND is willing to explore any options suggested or recommended by industry.
12	Is DND considering outsourcing the solution as a managed service?	DND is looking for industry feedback and models on this matter. For example, should DND outsource the data center solution? Please explain how this could be done.
13	Is DND willing to look into relational contracting?	Yes, DND and PSPC are considering various procurement approaches, including relational contracting.
14	Is there a definition for relational contracting? Is there a reference document?	Relational contracting is a principle being considered by Canada for long-term project relationships with Contractors that is based on a partnership and trust. The aim of relational contracting is to establish common goals and joint governance, encourage collaboration and streamline processes. This can also include various contractual provisions which allow for incentives and disincentives, among other things. Canada would appreciate any feedback from industry on how it believes relational contracting could be applied to this project, along with any experiences or lessons learned

Question Number	Question	Answer
		they may have acquired during previous experiences working under this type of framework.
15	Is DND planning to have one company deliver the entire infrastructure or will it tender each deliverable component (capability) separately?	Canada has not decided yet on how to proceed. Please provide your recommendation(s).
16	Will there be multiple contracts or a single contract?	This has not been decided at this time. Canada is seeking recommendations from industry on a procurement strategy.
17	Has there been any consideration from the government to leverage a prime using sub-contractors for this contract?	Yes, Canada is open to this idea. DND has also been looking at the possibility of a system integrator. Any suggestions on how to manage the project along with rationales on how this would be beneficial are welcome. Among others, DND is interested in feedback on whether the capability deliverables break-down presented in the RFI is realistic or should be approached differently.
18	Is DND looking for a turnkey solution?	DND is currently looking at all options and would like industry to propose a recommended way forward, keeping in mind that the Canadian Armed Forces (CAF) needs to retain Authoritative Control over the infrastructure.
19	This is a complex, large project. What are Canada's thoughts on the delivery eco-system approach? Is Canada looking at one or several contracts?	Nothing has been decided yet. DND is interested in obtaining feedback from industry on how you think we should address the requirements, as we are not familiar with the ecosystem approach. There are procurement rules that Canada must follow, but there are opportunities within those rules to improve delivery results. For example, Canada could leverage Supply Arrangements, Standing Offers, etc., where appropriate. Also, Canada has not determined whether there will be one or multiple contracts. Generally, speaking, Canada is seeking industry expertise to devise a delivery plan that will allow Canada to move faster at lower cost and risk.
20	What portion of work will evoke the National Security Exception (NSE)? Which provisions of obligations and specific conditions is Canada referring to?	This has not been determined yet.

Question Number	Question	Answer
21	Will this project be a build and handover type of project?	This has not been decided. DND is seeking recommendations from industry on this matter.
22	There are eight capabilities listed within Annex D of the RFI. How will Canada group these into capability packages from procurement perspective?	Canada has not made any decision on this. Canada is open to feedback received from industry.
23	How will evolution and related timelines be defined? Is DND contracting to buy a widget or a widget with service?	No decisions have been made at this time. Industry feedback is welcome on these matters.
24	It appears that this project will become the catch all for many capabilities. Where can industry provide value?	DND is seeking recommendations from industry on this matter.
25	Can industry ask additional questions at a later date?	Yes, industry can submit additional questions by sending them directly to <a href="mailto:TPSGC.PADivisionQE-APQEDivision.PWGSC@tpsgc-pwgsc.gc.ca">TPSGC.PADivisionQE-APQEDivision.PWGSC@tpsgc-pwgsc.gc.ca</a> . Please include "ITI in Sp of C2" in the subject line.
26	Is there an existing sponsorship process that could help companies to proactively create and obtain Communications Security Establishment (CSE) accreditation of technology solutions prior to project implementation so they could be delivered in a timely manner?	DND will discuss options with Director Information Management Security (DIM Secur). There may also be other potential vehicles, such as the Innovation for Defence Excellence and Security (IDEaS) program.
27	Does using technology that has been deployed in countries like Croatia and Brazil pose an issue?	The use of a particular technology in a foreign country is not an issue; the concern is with the use of labour outside of approved countries. Canada is still working on the criteria but, in the meantime, please refer to Annex E of the RFI for initial security requirements information.
28	What is an Invitation to Qualify (ITQ)?	An ITQ is a tool that the Government of Canada (GC) uses to short list potential suppliers based on security requirements, past experience and other criterion. If Canada chooses to move forward with an ITQ, it will be posted on <i>Buy and Sell</i>

Question Number	Question	Answer
		along with all relevant criterion. Suppliers would be invited to pre-qualify in accordance with the terms and conditions of any potential ITQ in order to become "Qualified Suppliers" for any subsequent phase of the procurement process. Only Qualified Suppliers would be permitted to participate or bid on any subsequent solicitation(s) issued as part of the procurement process.
29	Will there be an ITQ? If so, how can smaller companies avoid being automatically pushed out?	It has not been decided at this time if an ITQ will be part of the procurement process. Canada is open to all feedback received from industry, including how to setup an ITQ so as not to disadvantage smaller companies while also ensuring Canada is working with companies who can provide/support the solution they require.
30	When will the Canada decide if there will be an ITQ?	This has not been determined yet; however, Canada strives to provide industry as much notice as possible. Industry recommendations and justifications on whether to have an ITQ or not should help expedite this matter.
31	Could Canada expand on the two Key Industrial Capabilities (KICs) that have been identified for the Information Technology Infrastructure in Support of Command and Control (ITI in Sp of C2) Project, Cyber Resiliency and Artificial Intelligence (AI)?	The introduction of KICs will ensure that defence procurements can better drive innovation, exports and the growth of firms through the Industrial and Technological Benefits (ITB) Policy. KIC definitions can be found at: <a href="https://www.ic.gc.ca/eic/site/086.nsf/eng/h_00175.html">https://www.ic.gc.ca/eic/site/086.nsf/eng/h_00175.html</a>
32	Is the list of KICs associated with this project the same as the KICs listed in the IDEaS & Build in Canada Innovation Program (BCIP) programs?	<p>Introduced in 2018, KICs are a strategic approach to leveraging procurement in areas that are important to Canada for their future impact on Canada's sovereignty and national security and for which significant economic and commercial benefit may be derived. KICs are currently being implemented through the Industrial and Technological Benefits Policy, administered by Innovation, Science and Economic Development (ISED).</p> <p>The list of 16 KICs represent different aspects of Canada's</p>

Question Number	Question	Answer
		<p>defence industrial base that derive or have the potential to derive broader economic benefit from defence procurements and drive innovation, support high-growth firms and grow middle-class jobs for Canadians. They are divided into Emerging Technologies that represent developing capabilities that promise rapid growth for both defence and commercial sectors of Canadian industry and Leading Competencies and Critical Industrial Services that represent are well-established Canadian industrial strengths.</p> <p>The KICs that fall into the Emerging Technology grouping align most closely with the challenge areas identified to date under the IDEaS program.</p> <p>The BCIP is being consolidated within ISED's Innovative Solutions Canada program, which has launched a number of challenges that align to a certain extent with some of the KICs.</p>
33	Currently in the RFI, ITB uses the word "may". Has Canada moved further than "may"?	The ITB Policy, including the Value Proposition, will apply to all eligible defence procurements over \$100 million and to all eligible Canadian Coast Guard procurements over \$100 million and for which the National Security Exception applies. All eligible defence procurements with contract values between \$20-100 million will be reviewed for the use of Value Propositions. The review will determine whether the application of a Value Proposition is consistent with achieving the appropriate balance between capability, cost and benefit to Canada. Once the project reaches Definition Phase, a decision on the applicability of the ITB Policy will be made.
34	Does ITB have to equal the contract value?	Yes. Under the ITB Policy, winning bidders on defence and major Canadian Coast Guard procurements must undertake an amount of economic activity in Canada that is equivalent to the value of the contract.
35	Industry understands that ITBs are front and center of procurement, but how will ISED enhance ITBs so that they are easier to meet?	For more than 30 years, the Government of Canada has sought to leverage economic benefits from defence procurement through the Industrial and Technological Benefits (ITB) Policy (formerly the Industrial and Regional Benefits Policy) which requires contractors to undertake business activities in Canada at a value equal to the contract. Within the context of a competitive procurement process, the

Question Number	Question	Answer
		<p>ITB Policy will motivate bidders to put forward in their bid proposals their best Value Proposition to highlight the bidder's commitment to supporting the Canadian economy.</p> <p>A Value Proposition developed for this procurement will be based on market analysis, as well as industry engagement and written feedback throughout the RFI process.</p>
36	Does ITB mean the entire value of the contract has to be reinvested in Canada?	Yes. Under the ITB Policy, winning bidders on defence and major Canadian Coast Guard procurements must undertake an amount of economic activity in Canada that is equivalent to the value of the contract.
37	If I'm a Canadian company, I would not need to spend any ITB until I spend money outside of the country. Is this accurate?	<p>All bidders (whether a Canadian company or not) must submit in their bid proposal to Canada a Value Proposition representing the bidder's commitments to meet ITB requirements on the procurement. The winning bidder (whether a Canadian company or not) will be required to meet ITB Policy requirements under the ensuing contract. The Value Proposition, tailored on a procurement-by-procurement basis, could include requirements for the bidder to make commitments in areas of Defence Sector work (including Direct Work), Supplier Development including Small and Medium Businesses, Skills Development and Training, Research and Development, and Exports.</p> <p>All proposed ITB transactions, including those submitted in a Value Proposition, must be valued in terms of the Canadian Content Value (CCV).</p> <p>CCV means that portion of the value of a product or service that involves Canadian costs. The CCV of any Direct and Indirect Transaction will be determined by the net selling price method or the cost aggregate method. More information can be found in Section 9 of the ITB Model Terms and Conditions:  <a href="https://www.ic.gc.ca/eic/site/086.nsf/eng/h_00011.html">https://www.ic.gc.ca/eic/site/086.nsf/eng/h_00011.html</a></p> <p>Bidders are encouraged to learn more about the ITB Policy by requesting a meeting with the Government of Canada and by</p>

Question Number	Question	Answer
		visiting <a href="http://www.canada.ca/itb">www.canada.ca/itb</a> .
38	Does DND need industry to go over the capabilities of industry's commercial network products?	DND is still working on defining its parameters (jitter, lag, etc.), so feedback on recommended capabilities are welcome.
39	What are the driving factors for the project, why the importance to begin now?	<p>There are multiple factors that are driving the project. The main factors are to improve interoperability, technology evolution, security and realize cost efficiencies. More specifically:</p> <ol style="list-style-type: none"> <li>1. it is becoming harder to maintain and support the approximately 25 Secret-level networks within existing funding and current In-Service Support (ISS) team size;</li> <li>2. the Consolidated Secret Network Infrastructure (CSNI) network doesn't meet the Chief of Defence Staff's (CDS) vision, and requires endless patching to keep up with technology;</li> <li>3. it is becoming increasingly difficult to obtain funding to acquire new capabilities on separate networks; and</li> <li>4. the current network infrastructure doesn't meet DND's responsiveness needs.</li> </ol>
40	How will the project be organized?	The project is currently organized using a traditional team construct, under a Project Director and a Project Manager. DND is looking to be agile and flexible in the way it delivers this project, while keeping risks under control. DND is looking to leverage industry knowledge and experience regarding the delivery approach, as long as DND can maintain oversight. DND is also open to working with industry in a partnership model.
41	Who is managing the project requirements?	The Information Management Group (IM Group) is managing project requirements. Both the Project Director and the Project Manager are under the IM Group.
42	Within DND, there are a lot of stakeholders, organizations, Technical Authorities (TA) and Operational Authorities (OA) involved. As networks are consolidated, will there be a	Yes, the ITI in Sp of C2 Project will seek to restructure and re-align the relevant portions of the governance structure to meet the requirements of the new operating environment.

Question Number	Question	Answer
	commensurate consolidation/re-alignment of the relevant network authorities?	
43	Will the OAs/TAs be provided as part of the process?	The OAs and TAs for the networks have been identified and engaged. Part of this engagement is to confirm which networks will remain in scope and to identify their specific service requirements.
44	Does DND see the realignment of the Information Technology (IT) network governance structure as a major project deliverable?	Yes. The current players will still have a role, but DND will be seeking to simplify the governance to the maximum extent possible.
45	In reference to the organization chart presented at the industry day, how does industry differentiate this project from other Cyber initiatives in Director General Cyberspace (DG Cyber)?	The Cyber initiatives going on in DND under DG Cyber (Brigadier General Jayne), are separate activities. DG Cyber's portfolio includes Force Development activities for both Joint Communications Information Systems and Cyber Defence capabilities. If suppliers believe there is an overlap between projects, this should be expressed in their RFI response.
46	How does DND envision ISS throughout the life cycle?	DND is seeking recommendations from industry on how best to provide ISS, for example whether it should be provided by DND, industry or both. DND is seeking to continue to deliver capabilities during the ISS period, on a continuing basis. DND is considering optimizing the use of industry ISS to allow re-allocation of internal limited resources to other operational mission areas.
47	Which of its organizations does DND foresee being the long-term partner(s) with industry on this project?	DND believes the long-term partner with industry on this project will be its ISS organization; however, DND can't currently determine who that will specifically be as it expects that its current ISS structure will change as a result of this project, including industry potentially assuming a larger portion of it. Notwithstanding, as Defence Chief Information Officer (CIO), the Assistant Deputy Minister (Information Management) (ADM(IM)) will retain overall authority over the provision of ISS regardless of the solution deployed. Generally, the ITI in Sp of C2 Project is not tied to any service model and DND is seeking recommendations from industry on how it could evolve the support model.

Question Number	Question	Answer
48	If industry was to provide ISS, would they have access to the complete solution, for example Tactical Local Area Network Encryption (TACLANE)?	TACLANE are currently out of scope for the delivery and associated ISS; however, they are part of the overall solution, therefore integration would be in scope. Cryptographic equipment will be provided by another departmental project.
49	How is DND expecting to deliver hardware and software ISS, including upgrades?	DND currently expects that ISS will be a mix of industry and DND. DND is looking for opportunities to free up ISS resources currently employed in functions that could be delivered effectively by industry and reassign them to other functions that fall within our domains of expertise.
50	There have been a number of seemingly similar RFIs recently. Is this project intended to converge them all?	This is a separate project with a separate funding envelope, though there are a number of interdependencies with other projects.
51	The current timelines for RFP is 2022 and implementation is 2023. How can this timeline be sped up?	Canada is seeking ways to accelerate project delivery and is very interested in industry's recommendations on how it could do so.
52	Is DND looking to fast track the evaluation for professional services?	DND and PSPC are willing to explore various fast track evaluation options for professional services.
53	Has anything been done to modernize the network? If so, how is DND driving this change/transformation? Is it via an Enterprise Architecture Framework?	DND is currently modeling requirements using the DND Architecture Framework (DNDAF) and an architecture tool called "QualiWare Lifecycle Manager" (QLM), customized to DND's specifications. Our approach will be to leverage the abilities of industrial partners to help us achieve our objectives.
54	Is DND looking to use NATO approaches/processes to implement the solution?	DND is willing to consider processes recommended by industry, including foreign processes.
55	Who are the primary operational stakeholders (internal or external) and have they been engaged?	The primary operational stakeholders are mainly internal to DND and they have been, and continue to be, actively engaged.

Question Number	Question	Answer
56	With regards to Commercial Solutions for Classified (CSfC) concepts, has the project team been interacting with CSE?	The ITI in Sp of C2 Project doesn't typically interact directly with CSE. Instead, it liaises with internal security authorities (i.e., DIM Secur), who liaises with CSE; that said, DND has engaged DIM Secur and have received generally positive support with respect to DND's target level of ambition on the use of CSfC. The ITI in Sp of C2 Project is also aware of some on-going investigations within DND regarding CSfC.
57	Is the ITI in Sp of C2 Project liaising with CSE with respect to getting required CSfC technologies approved?	DND is confident that current impediments will be resolved early enough so as not to impact project delivery. Among others, if feasible, DND would plan to leverage CSfC to remove the Red Distribution System (RDS).
58	With regards to Data Centric Security (DCS), has DIM Secur been engaged?	Yes, DIM Secur has been engaged, noting that their approach is to evaluate the overall security architecture versus individual security solutions.
59	Is Canada aware of DCS experimentation work performed within Coalition Warrior Interoperability eXploration, eXperimentation, eXamination, eXercise (CWIX)?	Yes, noting that there is still DCS analysis work also happening in DG Cyber.
60	Have Key Performance Indicators (KPIs) been defined?	DND has defined a limited set of initial KPIs, but these are rough versions intended for discussions. The initial KPIs are included in Annex B of the RFI (at Appendix 1). Among others, KPIs will need to be aligned to specific mission service requirements and may differ from one mission and/or location to another. DND is seeking feedback on those and recommendations on industry standard KPIs in general.
61	Are additional redundancy metrics going to be released?	Yes. DND is liaising with stakeholders to improve and define additional metrics.
62	Is there something that DND is interested in seeing for collapsing the networks?	DND currently perceives DCS as being an essential enabler for options 2 and 3. DND is interested in obtaining feedback from industry on how DCS can assist with collapsing the networks and supporting interoperability with other networks.

Question Number	Question	Answer
63	What is DND's end target for number of networks?	No set number has been established. The current options suggest either one network (option 2 and 3) or two or more networks (option 1). Ultimately, DND would prefer one network but would like industry to recommend what is best, along with rationales to substantiate their recommendation(s).
64	Are network site surveys part of the project? If so, how will this progress? What will be the initial steps of bringing it all together?	DND is currently engaging stakeholders to document the As-Is architecture, as a first step to documenting the existing network infrastructure. DND expects to have a detailed picture completed in due time in Definition Phase (this is being documented in QLM). DND is seeking industry feedback on how much data is required, what data is really important, how accurate it needs to be, and how to effectively insert site surveys into the process.
65	Has DND been consulting with Shared Services Canada (SSC)?	Yes. Among others, DND is currently going through the process to obtain some WAN pricing information from SSC.
66	Will the Global Defence Network Services (GDNS) / Government of Canada Network (GCNet) be mandated in the new solution? How does this influence the ITI in Sp of C2 Project?	DND is looking to leverage the GDNS and GCNet contracts; however, if DND's requirements can't be met under these contracts, then DND would have to look at alternative solutions.
67	What is the ITI in Sp of C2 Project's relationship with Network Command and Control Integrated Situational Awareness Capability (Net C2 ISAC)? How does the ITI in Sp of C2 Project see consolidation with it?	Currently, Net C2 ISAC is ahead of the ITI in Sp of C2 Project, so the ITI in Sp of C2 Project will attempt to maximize reuse of the Net C2 ISAC product within the new infrastructure; however, it is likely that changes will be required, which will be handled through a change management process via the Net C2 ISAC project team while the project exists and through the Net C2 ISAC support organization after the project ends.

Question Number	Question	Answer
68	What is the relationship with other Cyber Defence projects?	<p>As more work gets done on the ITI in Sp of C2 Project, it may impose managed conformance changes on Net C2 ISAC. Things such as whether Net C2 ISAC data will feed other Cyber projects or if Net C2 ISAC will accept feeds from the other Cyber projects will be determined as the other Cyber projects mature. DND would expect the new infrastructure to meet the baseline requirements of the Cyber Defence projects, and possibly extend capabilities if required. This is a challenging situation right now and DND is interested in hearing back from industry on how it could plan to deliver cyber defence capabilities on the new infrastructure.</p>
69	What is the relationship with on-going Cyber Defence projects, including Net C2 ISAC (currently in Definition Phase) and Cyber Defence - Decision Analysis and Response (CD-DAR) (approaching end of Options Analysis)?	<p>The scopes of these projects are different. With respect to Net C2 ISAC and CD-DAR, the intent is for this project to leverage the capabilities provided by those projects to the maximum extent possible, and extend delivered capabilities if/where required. A brief description of these projects are provided below:</p> <p><b>Network Command Control Integrated Situation Awareness Capability:</b> The Net C2 ISAC Project will provide the situational awareness to the commanders of those IT services which are critical to the success of their operations. Additional information on Net C2 ISAC is available in the Defence Capabilities Blueprint at the following link:  <a href="http://dgpaapp.forces.gc.ca/en/defence-capabilities-blueprint/project-details.asp?id=960">http://dgpaapp.forces.gc.ca/en/defence-capabilities-blueprint/project-details.asp?id=960</a></p> <p><b>Cyber Defence - Decision Analysis and Response:</b> The CD-DAR Project will acquire defensive cyber capabilities to improve overall decision support and security of the DND/CAF networks, including the ability to detect, analyze and respond to threats. The integrated solution will provide reliable contextual analysis to support DND/CAF decisions and actions within the designated Command Network (Comd-Net); Extensions and Interfaces, and deployable Defence Wide Area Network (DWAN) systems to support the conduct of Defensive Cyber Operations (DCO). Additional information on CD-DAR is available in the Defence Capabilities Blueprint at the following link:  <a href="http://dgpaapp.forces.gc.ca/en/defence-capabilities-blueprint/project-details.asp?id=1917">http://dgpaapp.forces.gc.ca/en/defence-capabilities-blueprint/project-details.asp?id=1917</a></p>

Question Number	Question	Answer
70	Is DND tracking the activities in the United States of America (USA) Mission Partner Environment (MPE)?	DND is aware of the work in the space of the Federated Mission Network (FMN), which is a construct, not a network. In the deployed environment, the scope of the project is limited to Joint Deployable Headquarters and interoperability with the Canadian Deployable Mission Network (CDMN). Interoperability between CDMN and FMN/ MPE and other coalition networks is out of scope.
71	What are the business outcomes of the project?	There are eight main outcomes for the project: 1) increased interoperability; 2) integrated information access; 3) expanded connectivity; 4) converged network; 5) enhanced Service Management Framework; 6) resilient and flexible ITI; 7) continuously evolving ITI; and 8) secure ITI.
72	Is the network intended for tactical or administrative use?	The ITI in Sp of C2 Project is primarily intended to deliver a Command and Control (C2) network to support CAF decision-making across the spectrum of GC assigned missions, including targeting for example, but above the tactical level. This means that the network must handle whatever type of administrative data is required to support those missions and that, while tactical networks are not in scope, it must be capable of handling tactical data injected into it to meet user requirements.
73	Is the majority of this work Top Secret (TS)?	No, the solution will provide information processing capability for Secret-level information only, not TS. However, there might be interoperability requirements with TS networks.
74	What is the expected life span of the infrastructure?	The typical life span of these types of project implementations is 10 to 15 years; however, DND is striving to create a solution that will continuously evolve and get upgraded without having to set up a new project to rebuild the foundation again.

Question Number	Question	Answer
75	What other Secret-level networks are in scope?	The list of Secret-level networks in scope is still being developed, but is estimated at approximately 25. As a starting point, some networks being considered are shown in Diagram 1 of Annex C (Protected A). At this time, the networks in scope are limited to those owned and operated by Canada (i.e., some networks interface with Battlefield Information Collection and Exploitation Systems (BICES), but the BICES network itself is out of scope).
76	Currently, there are two sources of video streaming and these are high intensity bandwidth consumption feeds. Does DND anticipate this will change as it could greatly impact the bandwidth?	Industry should expect all services to be interoperable among all networks, as a baseline. Also, note that Intelligence, Surveillance, Reconnaissance (ISR) feeds from other departmental projects will also be expected to be supported by the Secret IT infrastructure.
77	Are workstation Operating Systems (OS) in scope?	Yes, noting that DND currently has an enterprise contract in place for supplying desktop OS. DND is not looking for the cost of the OS in RFI responses, but the cost for hardening the OS should be provided, if applicable.
78	Are all WAN Service Delivery Areas (SDAs) in scope?	Yes, noting that DND also expects additional SDAs to be added to serve new locations. This will be further clarified during Definition Phase.
79	Is the Land Command Support System (LCSS) network in scope?	LCSS in-garrison is in scope.
80	Is the scope of the project limited to Canada or does it include deployed?	The scope includes both the IT infrastructure within Canada and its extension into Joint Deployable Headquarters. There is a number of enduring DND locations throughout the world that are within scope. Note that the scope includes reach-back connectivity from theatre to Canada, but not Satellite Communications (SATCOM) systems. Furthermore, tactical networks are not in scope.
81	Is there a huge interoperability requirement within DND?	Yes, but DND has not made a decision on how many networks will be consolidated and this will impact the volume of information exchanged with other networks within DND. DND expects that the information shared will include ISR, live data feeds, etc. Also note that Canada is looking for insights on industry Quality of Service (QoS) standards.

Question Number	Question	Answer
82	Are Information Exchange Gateways (IEG) in scope?	DND is looking at providing enterprise IEGs and cross domain solutions in order to meet DND's interoperability requirements.
83	With regards to the IEG diagram, is it fair to assume that an Interface Control Document (ICD) will be provided?	Yes, to the extent possible. Note that IEGs will only be used internally to DND and with Five-Eyes (FVEY) partners. Transfer Cross Domain Solutions (T-CxDS) will be used in all other cases; ICDs will also be provided for those.
84	Is an interface with other Government of Canada Secret-level networks in scope?	The interoperability with the Government of Canada Secret Infrastructure (GCSI) is in scope. In addition, DND is still working on identifying other GC Secret-level networks it will need to interoperate with.
85	How should Industry focus on interoperability with FVEY and NATO?	Our current FVEY and NATO interoperability requirements are documented in Annex B of the RFI.
86	Will DND implement industry standards? Will these be based on other nation standards or specific to Canadian standards?	DND will implement industry standards where interoperability with partners is not impacted. DND aims to use the NATO Interoperability Standards and Profiles (ADatP-34) as a baseline and supplement with other Canadian and allied standards where required to meet specified interoperability requirements.
87	What are the requirements and recommended technologies to maintain FVEY interoperability?	Interoperability requirements are documented in Annex B of the RFI; this will be further defined in Definition Phase. Note that interoperability with FVEY is built on using common interoperability standards and protocols; the nations are not aware of how each other's networks are built. Interoperability standards of relevance are documented in ADapt-34 and FVEY Combined Communications and Electronics Board (CCEB) Allied Communications Protocols (ACPs).
88	Is connectivity with Europe in scope?	Yes, along with QoS. DND would like to be apprised of challenges relating to communications with our NATO and other European partners in your response.
89	Are mobile devices in scope?	Handheld devices such as tablets and cell phones are currently out of scope, though limited WiFi implementations for Local Area Network (LAN) connectivity is a possibility.

Question Number	Question	Answer
90	Will some wireless networking capabilities be delivered in this project?	Wireless networking capabilities are a potential solution, using CSfC technology among others. There is a specific wireless networking capability package approved by the National Security Agency (NSA) in the USA making use of CSfC. DND is not trying to dictate the solution, only providing the level of ambition of the ITI in Sp of C2 Project.
91	Does tactical data include Link 16, Link 11 and radio?	The ITI in Sp of C2 Project is not responsible for injecting or integrating Link 11, Link 16 and radio data into the infrastructure; however, the infrastructure will support that data with appropriate QoS.
92	Should industry assume that this project will be the main architect for data labelling technology and support all other projects?	Yes, as data labelling will be a critical enabler to the foundational DCS capabilities that the ITI in Sp of C2 Project is considering to implement.
93	Is the Data Centric Security Services (DCSS) Project a separate project and, if so, what is the ITI in Sp of C2 Project's dependency on the DCSS Project?	The DCSS Project is a separate departmental project. The linkages between the DCSS and the ITI in Sp of C2 projects are being examined.
94	Will it be the responsibility of the Prime contractor to determine minimum DCS capabilities?	DND is looking for industry recommendations to guide what it should design.
95	Is the scope for a DCS solution limited to interoperability?	No, the DCS solution should also allow for proper data segregation as per requirements documented in Annex B of the RFI.
96	DCS is mentioned within the RFI. How does DND envision a DCS solution? How does DCS fit into the requirement?	DND sees DCS as a feasible solution for the new infrastructure, hence the reason it is being referenced. A DCS solution is seen as fundamental to implement options 2 and 3 presented in the RFI. However, with regards to how to procure or implement a DCS solution (if required), that still remains to be determined and DND is seeking recommendations from industry.
97	What is the level of ambition of the ITI in Sp of C2 Project with respect to DCS?	DND is considering delivering foundational DCS capabilities and then continuously evolving the solution. Options 2 and 3 would require a DCS solution.

Question Number	Question	Answer
98	How does Canada plan to de-risk the design and implementation of DCS to collapse the networks?	DND is interested in risk mitigation activities. DND is considering doing a proof-of-concept and/or early implementation in Definition Phase. The procurement and delivery approach have not been determined yet.
99	Does DND plan to re-architect applications for Cloud?	The enhancement of Command and Control (C2) applications is currently out of scope for this project. However, should industry feel that it is necessary to consider expanding the scope to include this, then this should be noted in their response (including any advantages and disadvantages).
100	Are Workplace Communications Services (WCS) being considered as part of the solution?	WCS are not a consideration for the ITI in Sp of C2 Project. All in all, DND's C2 Secret-level networks are out of SSC's scope.
101	Will there be a mentoring capability such as the one required for the Defensive Cyber Operation - Decision Support (DCO-DS) Project (now included in the CD-DAR Project)?	Yes, this is a part of the Integrated Logistics Support (ILS) component, as well as training, sparing and technology refresh. Also, DND requires planned evolution and contract mechanisms for a long period of time (such as the next 15 years).
102	Will the TACLANes be provided as Government Furnished Equipment (GFE)?	Yes, high-grade cryptographic equipment will be provided as GFE since it is out of scope for this project. The only potential exception to this would be the consideration of the replacement of high-grade cryptographic equipment with commercial encryption, as per the CSfC program, if proposed by industry.
103	Who will manage cryptographic equipment?	As of today, the assumption is that this will continue to be managed by DND.
104	Is the Classified Network (CNet) owned by SSC?	No, the CNet is a DND Virtual Routing and Forwarding (VRF) network implemented over SSC's GDNS.
105	Are services of GDNS in scope?	DND will take advantage of whatever GDNS services are already being provided, noting that DND's Secret-level networks are currently being migrated from the GDNS contract to the GCNet contract.
106	Will the new infrastructure rely on GCNet to provide its Wide Area Network (WAN) services?	DND would like to leverage what is already in place provided it meets the project's requirements; however, if it doesn't, then DND will need to look at alternative solutions.

Question Number	Question	Answer
107	With regards to the data center consolidation project currently underway within SSC, are the Canadian Forces Base (CFB) Borden and Tunney's Pasture Data Centres within the consolidation effort of that project?	Not to DND's knowledge; however, DND Secret data centres are part of the ITI in Sp of C2 Project's scope. The ITI in Sp of C2 Project will implement data centres that meet mission requirements, including Authoritative Control. Among others, survivability is more important to DND than commoditization.
108	Can DND clarify the deployed network topology that will be delivered by the ITI in Sp of C2 project?	DND will deliver scalable Point-of-Presence capabilities supporting all core services, primarily for Joint Deployable Headquarters. Depending on size, this could go from a LAN down to a networked laptop. It is expected that DND will deliver a number of kits for joint deployed operations, and design recipes for additional kits beyond that requirement that would then be implemented by the Environmental Commands (ECs).
109	There is currently an RFP for Data Loss Prevention (DLP). What are the other interdependencies?	The main project dependencies are the CD-DAR, Net C2 ISAC and Identity, Credential and Access Management (ICAM) projects.
110	What application technology is DND currently using? And to what technology would DND want to migrate to?	Lists of applications and application technologies are still being developed. Therefore, DND has not decided what technology it wants to migrate to.
111	How can DND use the Government of Canada Cloud Adoption Strategy?	DND is not going with a specific approach or strategy at this moment as it is still defining requirements, and seeking industry inputs to recommend the best approach/strategy along with the identification of any cost differentials between solutions.
112	Is DND open to a private cloud solution? What is DND's approach to cloud?	DND is interested in any solution or approach proposed by industry, keeping in mind that the data must be stored in a GC-approved computing facility located within the geographic boundaries of Canada or within the premises of a GC department located abroad, such as a diplomatic or consular mission. DND is looking for opportunities from industry to show us models that would reduce cost compared to the current situation.

Question Number	Question	Answer
113	How much of the solution will be represented by a Cloud solution?	DND currently believes that the solution will consist of a hybrid environment, combining both Cloud and traditional IT solutions; however, the approach is to provide the requirements and have industry propose a solution (or solutions) that will most effectively meet DND's needs, including associated advantages and disadvantages.
114	What does Private Cloud mean? Is it on premise or off-premise?	DND is open to considering a private off-premise Cloud solution, given the fact that this would be implemented in Fiscal Year (FY) 2023/2024.
115	With regards to the question on Edge computing asked during the Industry Day, what is meant is by Edge computing?	This term was mentioned by industry and has not yet been fully investigated by DND. DND has not decided on a specific solution at this early stage of the project. The Implementation Phase is expected to start in 2023, so industry can be forward-looking and advise DND accordingly. DND would certainly like to hear from industry on Edge/Cloud approaches, along with supporting rationales.
116	Who currently manages the IEGs and firewalls?	The IEGs, which include firewalls and are used on the classified portion of the network, are managed by DND. Network gateways, which also include firewalls, are used on the unclassified (encrypted) portion of the network and are managed by SSC.
117	Are the applications classified or is it the data within them that is classified?	It is mostly the data that is classified; only a minority of applications are classified, though a few applications are subject to International Traffic in Arms Regulations (ITAR) restrictions.
118	Does DND expect the network to be attacked?	Yes, DND expects all of its networks to operate within an environment that is continuously being targeted by internal and external entities.
119	Will the submission be assessed with Security Assessment and Authorization (SA&A) oversight?	No, not during the RFI stage.

Question Number	Question	Answer
120	Do all software based solutions require a security assessment?	Yes, though the level of assessment will depend on the amount of risk and type of function involved for each solution. Security assessment requirements will be defined in accordance with CSE's <i>IT Security Risk Management: A Lifecycle Approach (ITSG-33)</i> , using the Secret/High/High profile (Information Technology Security Guidance (ITSG) and related information are available on the CSE website), as well as additional departmental security requirements. Also, please note the need to consider Supply Chain Integrity (SCI), as indicated in the RFI.
121	Is there any consideration for a unified Cross-Domain Solution (CxDS) for the baseline submission process using approved products, i.e., USA Unified Cross Domain Services Management Office (UCDSMO)?	DND follows what CSE approves, which is influenced by USA approvals.
122	Will cross domain solutions need to be "Raise-the-Bar" (RTB) compliant?	DND will follow the RTB standard to the maximum extent possible, or any other subsequent standard that may supersede it, as applicable.
123	Will the project include an ICAM capability and/or Public Key Infrastructure (PKI) smart card(s) to provide trust services?	The intent is to leverage the ICAM capabilities delivered by the ICAM Project, which is distinct from this one.
124	Will ICAM be able to track and control access by IT assets?	It is expected that ICAM will be imposed on both person and non-person entities; however, ICAM is also expecting to rely on external functions, including Information Technology Service Management (ITSM) for asset management.
125	Will ruggedized PKI smart cards be used?	This is a possibility for deployed operations, among others. Recommendations on this matter in the RFI response would be appreciated. As a reminder, the intent is to leverage the ICAM capabilities delivered by the ICAM Project.
126	Will the ICAM Project be providing one solution for DND?	The objective of the ICAM Project is to deliver a centralized, enterprise solution supporting all ICAM users within DND. The ITI in Sp of C2 Project is expecting to leverage the ICAM solution.

Question Number	Question	Answer
127	If there are two networks with the DCS concept applied in the consolidated network, would there be an IEG between the two networks?	DND expects that there will be an IEG or T-CxDS between the networks. From DND's current perspective, only within the consolidated infrastructure would DCS possibly alleviate the requirement to use an IEG or T-CxDS.
128	Are some of the Cross-Domain Enterprise Network Architecture (XENA) Projects requirements included?	Yes. Among others, DND is considering a DCS capability to handle multiple security caveats and Communities of Interest (COIs) on the same network.
129	Has DND defined a data aggregation policy?	No, DND has yet to define such a policy at the departmental level. Notwithstanding, the risks associated with data aggregation are subject to security assessments.
130	Is experimentation work, such as CWIX, required to validate data segregation?	No, noting that there is still DCS analysis work happening in DG Cyber.
131	The cost for 99.999% availability may not be reasonable. What will be the ITI in Sp of C2 Project's approach in this respect?	It is understood that a solution meeting this availability requirement throughout might be cost prohibitive. Accordingly, availability requirements will be tied to mission requirements and specific sites to the extent possible, as opposed to the entire infrastructure. Also, availability requirement will likely be set against services as opposed to individual infrastructure components. DND is seeking industry feedback on availability levels and how best to approach this.
132	Will DND be proxying Unclassified data in the Secret domain?	Yes, under option 3 (only). However, DND is unsure how this would be achieved and welcomes industry feedback on this.
133	What are DND's bandwidth requirements?	Current bandwidth allocations are described in Annex C (Protected A). It is expected that the new infrastructure will increase the current bandwidth ceilings provided to many, if not most of the sites. Industry is welcome to provide recommendations on bandwidth increase requirements based on their experience, including generic user and services growth expectations.
134	Is DND looking for a hardware independent solution?	Yes, to the extent possible, as this would further enable continuous innovation.

Question Number	Question	Answer
135	Will the end-user devices stay the same?	DND expects the baseline for end-user devices to be Virtual Hosted Desktops (VHDs) for security reasons, with workstations to be provided where required (e.g., high data processing requirements). This means that a number of end-users may need to be migrated to VHDs. It is also likely that a significant number of existing VHDs will need to be life cycled during project implementation.
136	Does DND currently have a single workstation solution (i.e., Access Cross-Domain Transfer solution)?	DND doesn't have an operational solution in place; however, a proof-of-concept initiative is currently underway.
137	Has DND identified a specific end user experience that they would like to employ, such as thin client?	No, DND currently supports a mix of solutions. Our current workstations are grandfathered to operate in Operations Zones, but new workstations would have to follow the policy on the use of classified workstations within at least Security Zones. This could limit us to using thin clients within Operational Zones.
138	Is there any virtual desktop technology being used today that will remain?	Unlikely, as DND expects it will need to lifecycle current virtual desktop devices prior to or by implementation time.
139	Will the VHD solution need to be supported by the vendor end-to-end?	This is yet to be determined. DND is seeking recommendations from industry on this matter.
140	Is this project going to deploy an Active Directory solution across the board?	It's too early to answer this, as this will depend on the implementation approach (Greenfield vs Brownfield approach) and the recommendations of industry.
141	How is DND going to interoperate Active Directory across networks and eventually to other projects?	DND's intent is to leverage the ICAM Project.
142	In terms of agility, how fast would Canada be able to insert new capabilities?	Currently, our environment is not very agile. In the future infrastructure, DND wants to be able to insert new capabilities within one year.
143	Are data centres hosted by a vendor an option?	Yes. Industry feedback on this matter is welcome.

Question Number	Question	Answer
144	What is the ITI in Sp of C2 Project doing to leverage AI and what risks does it anticipate?	DND has yet to determine how AI could be leveraged and to which extent. Canada is seeking recommendations from industry on this matter.
145	Is there a project similar to "Big Pipe" for NATO connectivity?	No, keeping in mind that the gateway that would link DND's network with NATO is part of the ITI in Sp of C2 Project's scope, but not the communications infrastructure that DND relies on except for any required bandwidth increase.
146	Reaching out to the operations-centres/security domains, can you clarify if the intent is to set up a Network to Network Interface (NNI)?	Interoperability requirements are documented in Annex B of the RFI. It is important to note that IEGs are different than NNI (i.e., unclassified network gateways) as referred to in the question.
147	How recent is the baseline described on page 1 of Annex C?	This information has been collected from many sources within the last year; however, that data continuously changes. Accordingly, this information is being used only to give industry an idea of the current landscape.
148	Is diagram 1 in Annex C a good picture of what the infrastructure looks like today?	Diagram 1 is representative, but was last updated in 2015 and should not be taken as a definitive reference. The intent of the diagram is to show the complexity and lack of efficient rationalization of the current infrastructure in general, and should not be allowed to constrain a future architecture design.
149	Can DND clarify the Operational View diagram?	The Operational View diagram is intended to visually depict DND's interoperability requirements, such as with NATO, FVEY, deployed, etc., defined in Annex B of the RFI.
150	What is currently operating on the network and what is expected to be added?	This will be addressed in detail during Definition Phase.
151	Is the legacy system MultiProtocol Label Switching (MPLS)?	The majority is MPLS, and mostly through land lines; however, there are some exceptions, such as SATCOM components (Canadian Forces Station (CFS) Alert, deployed ship, etc.). The MPLS network is currently delivered by SSC.
152	Does DND have redundant links across all medium and large sites?	Currently, DND has a limited number of sites that have redundant WAN connectivity.

Question Number	Question	Answer
153	With regards to Annex C (page C4-5), is there a model that can be applied across the type of sites for QoS, latency, etc.?	DND does not currently know the requirement for each site. This will be driven by missions and data requirements, including ISR data (Annex B of the RFI identifies three initial missions that will help to identify such service level requirements). The requirement cannot be tied to the size of a site.
154	How many applications are expected to be Cloud-capable at the time of implementation?	That will be determined in Definition Phase. However, it is expected that not all applications will be Cloud or Cloud-container capable, and that some traditional IT capabilities may need to be retained to run those applications. Note that the enhancement of applications is out of the scope for the project. Accordingly, if Cloud-based, it is likely that the new infrastructure would be a hybrid environment with on- and off-premise Cloud capabilities and traditional IT, among others.
155	How many stacks/equipment is required for theatre?	The ITI in Sp of C2 Project is responsible to support at least nine concurrent deployed missions and deliver at least four complete theatre extension kits to support joint missions; otherwise, the ITI in Sp of C2 Project will provide a scalable design for the deployed environments to the ECs to address their specific needs. The ECs will be responsible for implementing their own deployable capabilities.
156	Does DND have any labs for testing?	Yes, DND currently has lab testing facilities. Lab facilities are also identified as a project deliverable, as current facilities will likely need upgrading or replacing when new capabilities are implemented. Labs could be on- or off-site.

**ALL OTHER TERMS AND CONDITIONS REMAIN UNCHANGED.**