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**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**  
THIS DOCUMENT CONTAINS SECURITY  
REQUIREMENTS.

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Science Procurement Directorate/Direction de  
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<b>Title - Sujet</b> ARMOUR TDP	
<b>Solicitation No. - N° de l'invitation</b> W7714-115274/E	<b>Amendment No. - N° modif.</b> 005
<b>Client Reference No. - N° de référence du client</b> W7714-115274	<b>Date</b> 2013-05-10
<b>GETS Reference No. - N° de référence de SEAG</b> PW-\$\$\$V-051-25450	
<b>File No. - N° de dossier</b> 004sv.W7714-115274	<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 2013-05-30</b>	
<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> Kate Mulligan	<b>Buyer Id - Id de l'acheteur</b> 004sv
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<b>Signature</b>	<b>Date</b>

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This solicitation amendment is raised to:

- i. address any new questions received and questions not previously addressed in solicitation amendment 003 or 004;
- ii. address questions asked during the One-on-One meetings; and
- iii. incorporate applicable amendments the solicitation document.

## Questions and Answers

### Q111.

After review of the suggested SACC Terms and Conditions (“T&Cs”), we propose the following clarifications, insertions and additions:

a) Add new Clause “CONDUCT OF THE WORK – In the event that Contractor is required to continue work during a dispute, then Contractor shall proceed diligently with the performance of the work in accordance with the Contract on a cost-reimbursable basis.”

b) Add the following new Sub-clause to WARRANTY to exclude any implied warranties: “THIS SOLE AND LIMITED WARRANTY IS EXCLUSIVE AND IN LIEU OF ANY OTHER WARRANTY OR CONDITION. THERE ARE NO OTHER WARRANTIES, CONDITIONS, REPRESENTATIONS, OR GUARANTEES, WHETHER EXPRESSED, IMPLIED OR ARISING OUT OF STATUTE, LAW, EQUITY, COURSE OF DEALING, USAGE OF TRADE OR OTHERWISE WITH RESPECT TO THE WORK, INCLUDING BUT NOT LIMITED TO, THOSE RELATING TO MERCHANTABILITY, FITNESS FOR PURPOSE, OR OTHER WARRANTY OF QUALITY APPLICABLE IN ANY JURISDICTION.”

c) Add to LIMITATION OF LIABILITY:

3.1 “Notwithstanding any other provision of the Contract, Contractor shall not be liable to the Crown for any amount in excess of the undelivered portion of the Contract value.”

3.2 – “Neither party shall be liable to the other party for any loss of profits, loss of revenue, loss of data, loss of use, special, indirect, or consequential damages.”

d) Clarification on STATUTORY WAIVER OF MORAL RIGHTS LAW. There may be a large number of people involved in a project and it may not be simple to identify all contributors. Providing a written waiver from all authors on a project may not be possible. We propose to add the following: “Contractor will indemnify the Crown against any moral rights (as this term is defined in the Canadian Copyright Act, R.S.C., c. C-42) claims made by its staff in lieu of obtaining moral rights waivers from any personnel who authored or contributed to the Foreground Information that is subject to copyright protection and that is deliverable to the Crown under the terms of the Contract.”

e) Add to ACCEPTANCE:

5.1 - "In the event that the Crown does not attend a scheduled acceptance test or approval meeting then the items or deliverables which were the subject of the test or meeting will be deemed accepted or approved."

5.2 "In the event that the Crown does not accept or approve deliverables including documentation within the review period stipulated in the Contract or 30 days if not stipulated then those deliverables or documents will be deemed accepted and approved."

**A111.**

a) The additional clause proposed in Q111.a) is not acceptable and will not be added to the resulting contract clauses.

2040 05 and 2040 39 of the General Conditions referenced in the resulting contract clauses address: Conduct of the Work; Conduct of the Work during a dispute; and additional costs incurred by the Contractor as a result of Suspension of the Work.

b) The warranty provisions in the Supplemental General Conditions and General Conditions referenced in the resulting contract clauses meet Canada's warranty requirements.

c) The additional clause proposed in Q111.c) is not acceptable and will not be added to the resulting contract clauses.

d) The additional clause proposed in Q111.d) is not acceptable and will not be added to the resulting contract clauses.

e) The additional clause proposed in Q111.e) is not acceptable and will not be added to the resulting contract clauses.

**Q116.**

To allow for situations in which a Company A has created a wholly-owned subsidiary Company B, and transferred all its operating assets, assignable contracts, employees, and know-how to a Company B, and Company B thus has the know-how and experience to bid on ARMOUR, we suggest the following updates:

1. Replace the following paragraph at RFP p.13/76:

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

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with:

Except where expressly provided otherwise, the experience described in the bid must be the experience of the Bidder itself (which includes the experience of any companies that formed the Bidder by way of a merger but does not include any experience acquired through a purchase of assets by other than an affiliated company). The experience of the Bidder's subsidiary and sister corporations, subcontractors, or suppliers will not be considered. The experience of the Bidder's parent corporation will be considered only if the parent has transferred all relevant operating assets, assignable contracts, employees and know-how to the Bidder.

2. Replace the following paragraph at RFP p.37/76:

Except where expressly provided otherwise, the experience described in the bid must be the experience of the Bidder itself (which includes the experience of any companies that formed the Bidder by way of a merger but does not include any experience acquired through a purchase of assets or an assignment of contract). The experience of the Bidder's affiliates (i.e. parent, subsidiary or sister corporations), subcontractors, or suppliers will not be considered for criteria under section 3.1 Corporate Experience of Bidder (Prime) Only.

with:

Except where expressly provided otherwise, the experience described in the bid must be the experience of the Bidder itself (which includes the experience of any companies that formed the Bidder by way of a merger but does not include any experience acquired through a purchase of assets by other than an affiliated company). The experience of the Bidder's subsidiary and sister corporations, subcontractors, or suppliers will not be considered for criteria under section 3.1 Corporate Experience of Bidder (Prime) Only. The experience of the Bidder's parent corporation will be considered only if the parent has transferred all relevant operating assets, assignable contracts, employees and knowhow to the Bidder.

3. Replace the following paragraph at RFP p.57/76:

For the purposes of section 3.1, the experience of the Bidder described in the bid must be the experience of the Bidder itself (which includes the experience of any companies that formed the Bidder by way of a merger but does not include any experience acquired through a purchase of assets or an assignment of contract). The experience of the Bidder's affiliates (i.e. parent, subsidiary or sister corporations), subcontractors, or suppliers will not be considered.

with:

For the purposes of section 3.1, the experience of the Bidder described in the bid must be the experience of the Bidder itself (which includes the experience of any companies that formed

the Bidder by way of a merger but does not include any experience acquired through a purchase of assets by other than an affiliated company). The experience of the Bidder's subsidiary or sister corporations, subcontractors, or suppliers will not be considered. The experience of the Bidder's parent corporation will be considered only if the parent has transferred all relevant operating assets, assignable contracts, employees and know-how to the Bidder.

**A116.**

The situation described in the question and the proposed amendments to the solicitation have been considered and deemed acceptable.

The Amendments to the Solicitation section herein includes the proposed changes to the solicitation.

**Q117.**

RFP Pg 21, being RFP, Part 7 - Resulting Contract Clauses, section 2.3 SACC Manual Clauses states:

“Notwithstanding (sic) any other clause of the Contract, Canada will own all Intellectual Property Rights in Foreground Information in accordances (sic) with SACC Manual Clause K3410C (2008-12-12), Canada to Own Intellectual Property Rights in Foreground Information.”

This clause is in conflict with the five item groups named in:

- PDF Pg 9, being RFP, Part 2 - Bidder Instructions, section 8 Ownership of Intellectual Property; and
- PDF Pg 20, being RFP, Part 7 - Resulting Contract Clauses, section 2.1 General Conditions.

Would Canada please delete in its entirety RFP, Part 7 - Resulting Contract Clauses, section 2.3 SACC Manual Clauses:

“Notwithstanding any other clause of the Contract, Canada will own all Intellectual Property Rights in Foreground Information in accordances with SACC Manual Clause K3410C (2008-12-12), Canada to Own Intellectual Property Rights in Foreground Information.”?

**A117.**

Section 2.3, SACC Manual Clauses will not be deleted, but has been revised to the following:

"Subject to the terms and conditions of Article 8., Ownership of Intellectual Property of the Contract, Canada will own all Intellectual Property Rights in Foreground Information in accordance with SACC Manual Clause K3410C (2008-12-12), Canada to Own Intellectual Property Rights in Foreground Information.

SACC Manual Clause K3415C (2008-05-12), Commercialization in Canada"

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In addition, Section 8., Ownership of Intellectual Property in Part 2 - Bidder Instructions of the RFP has been revised. The Amendments to the Solicitation section herein includes the proposed changes to the solicitation.

**Q118.**

RFP pg 29, being RFP, Part 7 - Resulting Contract Clauses, section 10, Priority of Documents, a) Articles of Agreement.

The term "Articles of Agreement" is not defined in the RFP. However, SACC 2040 01 defines "Articles of Agreement" to be solely the SACC clauses identified in the contract.

The priority of documents list does not include the "Contract" itself.

Should the Priority of Documents not begin with "a) This Contract"? ... followed by "Articles of Agreement" etc.

**A118.**

No. The Contract calls up the documents listed in the Priority of Documents. The Priority of Documents only addresses conflicts between the documents.

**Q125.**

DRDC was to provide additional information on the data diode (low -> high) cross domain solution used by DND in order to ensure it would integrate with the proposed architecture.

**A125.**

The specifications and requirements for a data diode or data guard required for the ARMOUR project in support of project demonstrations will be determined by the Threat Risk Assessment recommendations that are part of the C&A process. The process will determine whether or not such devices will be required in the scope of a demonstration project. The C&A process will also need to consider the technical requirements of the Contractor proposed solution.

Without knowledge of information requirements for proposed solutions, the specification for a data diode or data guard or a specific example of an approved data diode or data guard that will meet the needs of the ARMOUR project cannot be provided. For the purposes of proposed design, Bidders may consider the capabilities of the Tenix Interactive Link Data Diode Device Version 2.1 from HP as representative of a typical solution that may be used.

**Q130.**

Question Q130 will be addressed in a subsequent solicitation amendment.

**Q131.**

In section 1.15 (Test and Demonstration Approach), the RFP states: "The Contractor must continue to provide support for all demonstrations on the DREnet following this initial installation and demonstration, for the duration of the ARMOUR TD project." Within this section there is an additional statement about lab support: "The baseline software used for each demonstration cycle will be installed at the DRDC Cyber Operations Section laboratory after successful demonstrations have been conducted." Is there an expectation that the DREnet and Cyber Operations deployments will be used concurrently, that is, will provisioning and licensing of the ARMOUR deployment be needed for two separate environments at DRDC? If the labs are not to be used concurrently, is it acceptable to move licensed components between labs on an as-needed basis (i.e. to support the demonstration only). The requirement to provision, license, deploy and maintain two client labs, in addition to the contractor's own development lab, places a heavy financial and management strain on the project and would place the overall research objectives at greater risk.

**A131.**

There is no expectation that the DREnet and Cyber Operations deployments will be used concurrently. It is acceptable to move licensed components between the DREnet and Cyber Operations deployments on an as-needed basis. The Contractor will be required to provide the support needed to make the move, installations, configuration, etc.

**Q134.**

How will the ability of vendors to meet these requirements be validated? How do you make sure from the start it is robust enough?

**A134.**

The solicitation identifies tasks associated with Algorithm R&D which recognize the need for work to be done to address unknowns. There are also tasks, including the need for a Phase Development Plan and Requirements Refinement, which recognizes the need for flexibility to address things as they come up. DRDC expects a certain amount of analysis in the bid preparation (Evaluation criteria 1.2 (b)) and preliminary design phase engineering such that there is a good expectation that the needs of the ARMOUR TDP will be met. A cyclical development and approval approach is also why there are multiple Critical Design Review Meetings, one per phase, recognizing that some things may not be known and some things may change over the course of the project.

**Q142.**

The STS mentions interfacing with a ticketing system for semi-automated Course of Action selection; is there a specific ticketing system available for use by the contractor, or is the responsibility of the contractor to propose and deliver a ticketing system?

**A142.**

Within the STS, there is no requirement for the bidder to propose and deliver a ticketing system and no specific ticketing system is envisioned. However, the bidder is responsible to demonstrate that an interface to a ticketing system is available. This could, for example, include a demonstration of an email interface whereby "tickets" from ARMOUR could be issued to a notional ticketing system.

**Q145.**

For example: Section 6, Intellectual Property: the SAC IP clause grants unlimited rights to the Crown, even though ownership is retained by the contractor. Pre-existing restrictions which are beyond the control of the contractor and/or are part of the contractor's core business and are competition-sensitive would limit the disclosure, dissemination, sub-licensing or title transfer. Would PWGSC be willing to make a clarification for those types of exceptions?

**A145.**

Please refer to Solicitation Amendment 004, **Q144** for an answer to this question.

**Q148.**

So with the DREnet being an enterprise-type network, we might not use tanks as graphical icon components?

**A148.**

The icon used in the Graphical User Interface should be indicative of the unit, the mission or the system being represented.

**Q155.**

How should we balance the modularity requirement against the performance requirement?

**A155.**

The STS table indicates that for performance reasons, bidders are allowed to bypass the standards-based interfaces and perform a direct call if necessary. Additionally there are evaluation criteria specific to the use of standards-based interfaces which could affect the decision or method used to bypass a standard interface. It is always possible to maintain good structure while improving performance. Nonetheless, architectures adhering to well established standards could involve design tradeoffs to use non standardised interfaces for higher level requirements, e.g. performance.

**Q157.**

Are points awarded for exceeding the demonstration performance requirements?

**A157.**

There is no evaluation benefit to exceed the performance criteria.

**Q158.**

Is the list of devices in the RFP considered exhaustive? There are about 10 devices on the list; are there other devices that could be interfaced to? E.g. a router, or network management system. In the reachability information, routers and switches are mentioned as data sources. But it's not clear if there are other devices, like a network management system, or something like Arcsight.

**A158.**

The devices that have been named in the RFP, Annex A, Statement of Work, Section 1.10, bidders may choose to interface with. There is no need to utilize any of those data sources.

If bidders feel they require other information from devices which they expect are within DRDC's network (e.g. a router), then bidders must identify within their proposal that access to these devices is needed. Bidders also will need to ensure that any data expected from these elements is able to be gathered, derived, or created elsewhere within the solution (e.g. through alternative data source collectors) in case access to the requested devices cannot be granted.

**Q165.**

SOA is not the only way to achieve modularity. There are other standards that achieve it. Is SOA mandatory or are any other standards that fulfill the modularity requirement acceptable? What does DRDC's definition of SOA architecture include? E.g. does it include "discovery"?

**A165.**

It must be clear that standards are not architectures and architectures are not implementations. DRDC does not provide a definition of SOA and SOA as architecture is mandatory for the integration framework (see STS Table IF 2 and 3). SOA can be implemented using any service-based technology, though the integration framework has to support standards-based web-services. There are many standards that support SOA and DRDC has identified certain standards and standard bodies that are considered acceptable and that minimize the coupling between modules and maximize internal cohesion of each module.

**Q170.**

In the technical briefing you specified three separate models for UI interaction: thin, thick, and web. Is there different weighting for a solution that delivers a particular model, or all three? Depending on your definitions, a web-based approach could satisfy all the models.

**A170.**

The use or access to those three different models is an architectural requirement. It does not necessarily have to be implemented, but the number of models implemented will affect the solution's TRL level for the UI. The overall score is based on an average of TRLs across the different requirements, so implementing all three models will influence the score. The bidder's TRL may justify their proposed TRL as they see fit.

**Q171.**

How would we reconcile IP ownership if we brought our IP into the integration framework?  
Could we be granted a license back that we could use for commercial purposes?

**A171.**

Any new functionality developed for ARMOUR is considered foreground IP and is owned by Canada under the licensing terms. However, if the bidder has background IP which satisfies all the ARMOUR TDP integration framework requirements and no new foreground IP is developed, there would be no new foreground IP that Canada would own.

In order for Canada to be able to license and distribute the Integration Framework as described in the RFP, by including background IP into the Integration Framework components, the bidder will permit Canada to license and distribute this background IP, as Canada sees fit, to permit commercialization of the Integration Framework.

**Q172.**

With Canada moving with ITG33 towards Security Assessment & Authorization (SA&A) as opposed to Certification & Accreditation (C&A), do you see that having an effect on the C&A requirements, and will you require someone with SA&A experience down the road?

**A172.**

The RFP specifies that a general certification and accreditation process must be in place at the time of bid close, but does not specify a particular C&A process. DRDC has given specific reference to the current DND guideline. If a change is needed in the contract post contract award, then the project will go through a contract amendment process to clarify that change.

**Q173.**

A data source connector must include mechanisms to collect network infrastructure information. So in the event that the tools in the infrastructure listed don't already provide that information, we would indicate "this information is not available with the technology listed in the infrastructure", and we would describe how it would be implemented manually, or propose an alternate means to collect it automatically.

**A173.**

Infrastructure data that can be obtained automatically should be collected automatically. If an automated method does not exist, the bidder would be required to provide the automated means to collect that information.

**Q174.**

If development of external software is needed to facilitate collection of infrastructure data that is required but not already available from an existing data source, would it be included in the IP

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strategy as part of the open source research license? At that point it's an infrastructure data source and not a Data Source Connector.

**A174.**

No. Any part of the underlying infrastructure would not have to be part of the research license. For the research license the bidder must provide the Data Source Connector for that data source, but is not obliged to also provide the underlying infrastructure component.

**Q175.**

Does the cost for data sources (e.g. an antivirus product) have to be included in the response for the research license or end solution?

**A175.**

Licensing required for the technical demonstrator would need to be factored in. Licensing for the research license or optional work does not need to be factored in. If the bidder can factor in some kind of a demonstration license from McAfee for the needs of the TDP demonstrations, then when the project moves into the optional services, at that point the budget identified for hardware and software acquisition would be used to furnish any operational network capability for that operational deployment.

**Q176.**

With respect to the 3D graphical display requirements, it states that 3D is required. We did not find reference for what should be displayed in 3D. Is it up to the bidder to propose what should be rendered in 3D or do you have specific data you would like to be visualized in 3D?

**A176.**

It is up to the bidder to propose where 3D visualization would provide the most value. The Technical Specification Document has a section on visualization; it identifies guidelines, but not specific requirements.

**Q177.**

Is the need for a fat client part of an undisclosed requirement for offline/disconnected UI support?

**A177.**

No, there is not an undisclosed requirement for offline/disconnected UI support. DRDC understands that in a Web or thin client architecture some or all visualization aspects may be rendered on the server and not on the client, whereas with a fat client architecture all visualization would be rendered in the client. The TRL level proposed by the bidder will define what is expected to be delivered for the various client types.

**Q178.**

Do we define our own proposed technology readiness levels (TRL)?

**A178.**

Through development the TRL is determined by the outcomes of verification, validation, acceptance testing, and demonstration. The bidder must provide a demonstration phase plan that will describe how and what they will demonstrate. If the system being demonstrated provides the promised functionality on the DREnet then it would be a TRL7.

**Q179.**

Could the IP we currently own be considered a TRL9?

**A179.**

If the IP used in the technical demonstrator is used for commercial purposes running in an operational environment, it is TRL9. If it is only used internally on an operational network, and not delivered to clients as a service or product, then it would be TRL7. The TRL criteria are published and outlined within the RFP. Bidders are to self-assess their TRL compliance with the STS at bid time as well as TRL proposed to be reached through development. At delivery DRDC will determine if the TRL criteria have been met as part of acceptance testing. If the proposal claims a higher TRL then is assessed as being delivered, the solution may not be accepted.

**Q180.**

In terms of the architecture diagram, our framework diagram might not map directly to yours. Can a bidder define how components in its architecture diagram map to the provided architecture diagram without trying to rework its diagram to look like the provided diagram?

**A180.**

Yes. DRDC does not expect that all vendor architecture diagrams will look like the one provided; this is why it is described as a conceptual architecture. It is intended to provide a reference to ensure that any provided diagram covers all the pieces that are important. The bidder should identify how the functionality associated with the STS is achieved.

**Q181.**

Where a data store is represented as a relational database: for performance reasons can we federate our database across multiple components across the environment? For example, a threat event database, and asset database, etc... This only concerns the architecture framework data store and not any infrastructure data source components which may also include their own database.

**A181.**

As long as the published requirements are met (including the ability to package and distribute the research version of the solution), there are no restrictions in the implementation details for any architecture.

**Q182.**

In delivering the web standard interface, if for performance reasons can we use alternative component communication interfaces or must we use SOA interfaces only? If we support both, will that be satisfactory?

**A182.**

The RFP states that for performance reasons bidders can bypass those standard interfaces. If bidders bypass standard interfaces to achieve performance requirements in excess of those specified then it's not necessary. Bidders must also consider that the interfaces will need to be documented in order for component replacement and modularity.

**Q183.**

The reason for the optional hardware \$1M figure is not clear. Canada already has its own procurement relationships in place. Why would a mark-up be required when Canada has its own procurement vehicle for hardware and software?

**A183.**

There is the potential for tasks raised during the optional services requirement to require the purchase of hardware or software in order to support the work to be performed under a task authorization. The allocation for hardware and software provides for the procurement of this supporting hardware or software. The allocation for hardware and software is estimated to be \$1M.

Including this provision and the \$1M allocation does not prevent Canada from using other hardware procurement vehicles, nor does it commit Canada to purchasing \$1M of hardware or software under the optional services requirement.

Whether or not hardware or software will need to be procured under the contract will depend largely on the contractor's proposal in response to the scope of work defined in the proposed task authorization. For example, DRDC has a task for testing the ARMOUR system on a unique network. In the proposed task, DRDC has provided the technical details of the network on which the system is to be tested. In the contractor's proposal for the task, the contractor has indicated that the target network does not contain sufficient capacity to fully host the ARMOUR system for testing and an additional hardware component is required to perform the requested task. The proposal would identify the hardware, its specifications, and its price (or estimate depending on the applicable basis of payment for the task). Canada will have the choice to either procure the hardware from the contractor as proposed in the task; purchase the hardware via a different

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vehicle and supply the hardware as GFE for the task; or not purchase the hardware and accept the limitations of the target network and its impact on the results of the testing.

**Q184.**

If we have to deploy something on to the DREnet, to get the system running for part of the technical demonstration, would this optional hardware be used?

**A184.**

Demonstrations are different from optional work. Demonstration hardware and software is part of the fixed cost price of the contract. Optional work may be exercised at a later time and the million dollars allocated within the option work is for that purpose.

**Q185.**

Is the Optional Services Requirement standard markup used to help evaluate all bids against each other? Is the mark-up rate is to include a blended rate of server hardware and software, but not include services as defined in the optional work?

**A185.**

Yes, the intent is to fairly evaluate financial bids. The mark-up is a blanket mark-up on hardware and software and is intended to provide the contractor the opportunity to offset internal costs associated with the procurement of hardware and software.

**Q186.**

Does the optional hardware and software costing include shipping and handling?

**A186.**

Yes, with markup on top of those fees.

**Q187.**

We are concerned that other potential bidders may have access to elements of the IP of the DRDC Technology source code.

**A187.**

Currently there is no licensed access to the DRDC Technology IP discussed within the RFP.

**Q188.**

What is the value of the accelerated schedule? Is there really a benefit to an accelerated schedule (i.e. are we going to be in a position to have to wait to meet an important stakeholder event at various phases?)? And is there a link with the proposed milestone schedule and real events?

**A188.**

Stakeholders are being engaged throughout the entire process. No real stakeholder events are linked with the proposed milestone schedule. The point rated evaluation criteria provide for points for an accelerated schedule. Please refer to Solicitation Amendment 003, **Q83**.

**Q189.**

Proprietary packet capture – What is it?

**A189.**

Annex A, Statement of Work, section 1.10 Available Data Sources and Effectors, page 9 and 10 of 19 has been modified within Amendment 003.

**Q190.**

CDRM: It can be whenever we want it to be?

**A190.**

A Critical Design Review Meeting (CDRM) is required within each of SOW Phases 2 through 5 in order to review the Critical Design of the work to be completed during the respective phase. Flexibility is afforded to the bidder in regards to the timing within the bidder proposed schedule. Timing should be such that the design for the phase is clearly established and documented before significant development investment is made in the phase.

**Q191.**

The Data Item Description (DID) schedule, the Project Management Plan (PMP) and Architecture Design Document (ADD) are indicated as draft as part of the bid and draft again 29 days after Contract award. Why the duplication?

**A191.**

It is expected that bidders may want or need to refine those documents because the evaluation criteria does not force bidders to put the Architecture Design Document or Project Management Plan in the format of the DID. Once on contract, compliance with the DID formats are required.

**Q192.**

The Critical Design Review Meeting (CDRM) is mentioned but it doesn't say when. Kicking something off is dependent on the previous readiness review meeting.

Not a big issue as we can make assumptions, but what was your intent? You do a kickoff then at some point do a CDRM, before you get going on the R&D on things.

**A192.**

CDRM is broadly covered on page A1 of A6 in Appendix A of the SOW. Canada is expecting bidders to propose a development schedule that should include milestones e.g. CDRM. The intent is to allow the bidder flexibility in the preparation of their development schedule.

**Q193.**

How important is the attack graph to the ARMOUR concept? Is DRDC open to other approaches?

**A193.**

As stated in the RFP, the attack graph component is mandatory. There are opportunities in the SOW to refine requirements, but any requirements changes will need to be processed through an appropriate process. The DRDC view is that the attack graph is an important tool for dealing with multistage attacks.

**Q194.**

How much will JDMS be part of the ARMOUR solution?

**A194.**

DRDC will not be providing any part of JDMS to the successful bidder. ARMOUR is not expected to have any dependencies on the JDMS project.

**Q195.**

How much custom development is expected? Will solutions more heavily weighted with COTS components and less research be penalized?

**A195.**

The amount of custom development will depend entirely on the nature of the bidder's solution. There is no expectation on the amount of custom development. The evaluation will give more points for using proven technologies. Also, the challenge with a COTS solution may be in meeting the modularity requirements for the integration framework, and satisfying the need to provide it under the research license.

**Q196.**

How will you treat solutions being built outside of Canada?

**A196.**

Canada does not preclude the use of products or development outside of Canada. The Canadian Content information has been significantly modified as part of Amendment 004 of this solicitation. Bidders are encouraged to review those changes and submit any further questions regarding Canadian content and solutions, as required.

**Q197.**

What effect will upcoming future standards have on the ARMOUR project? Shared Services Canada is in particular expected to produce standards that will influence the ARMOUR solution.

**A197.**

This is impossible to predict at this time. The demonstration environment, the DREnet, is managed by Shared Services Canada, but the timelines for changes from them is unknown. This risk is addressed in the SOW with requirements refinement phases, in which necessary changes, e.g. from Shared Services Canada but also other sources such as the stakeholders, can be addressed. This is also a driver for the modularity of the framework, so that the system can accommodate for example multiple data sources.

**Q199.**

Section 3.2.3 of the Point Rated Corporate Experience Evaluation Criteria appears to ask for experience in deploying open source products within one or more project, however the scoring only appears to reward work done participating in a board or promotion position within an open source initiative such as OASIS. Can you clarify what this criteria is requiring from the bidder and how the scoring will reflect that requirement?

**A199.**

Section 3.2.3 of the Point Rated Corporate Experience Evaluation Criteria states:

"Demonstrated Experience providing Open Source Software Project or Open Architecture Promotion and Support

The number of projects, scope and duration of experience in providing Open Source Software Project or Open Architecture promotion and support will be evaluated."

The bidder is required to be describe their involvement in the promotion and support of Open Source Software or Open Architecture projects. This is what will be evaluated. Points will be awarded as outlined in Section 3.2.3.

**Q200.**

Section 1.10 of the ARMOUR Annex A Statement of Work

The Canadian Forces Warfare Centre (CFWC) website identifies a mandate to bring together scientists with a wide variety of skill sets and experience to support DND/CF warfare capability development. From a science perspective, the warfare capability development agenda takes an idea from concept to capability into operations through the functions of CD&E, System Acquisition, Doctrine, Education, Training, Mission Rehearsal and Lessons Learned.

The WCS develops and implements assessment methodologies and tools to assist the CFWC experimentation campaigns, and assists in the development and design of experiments. WCS

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scientists provide reachback and a persistent linkage to DRDC centres, academia and national and international scientific communities at large.

Further, the Joint Information Infrastructure Management's (JIIM) mandate is responsible for the provision of Information Management and Information Technology (IM/IT) support, including distributed networks, Joint Battle Lab (JBL)/Integrated Test Bed (ITB) services and SEMS, to all CFWC Lines of Operations and related activities, with particular focus on Joint Concept Development, Joint Experimentation, Joint Training Support, and JBL/ITB operations.

Question:

The CFWC's mandate and capability described above with an ability to provide workstations, a facility with close proximity to the ARMOUR team, DREnet and Cyber labs and the ability to provide more secure capabilities through this proximity seems like a good fit. Can the CFWC's capability be used to connect into ARMOUR and ultimately provide a large cost reduction to the ARMOUR project, enabling the existing funds to be leveraged into the sparse research budget versus expending it on a large lab set up that will enable joint interoperability and improved efficiencies?

**A200.**

No, bidders will not be able to leverage the Canadian Forces Warfare Centre's facilities, resources and equipment to deliver or develop the ARMOUR solution.

**Q201.**

With respect to ARMOUR RFP section 1.10 (Available Data Sources and Effectors), in order to minimize duplication of effort would DRDC allow data source information to be extracted from the DREnet and replayed as input into the data source collection modules at the contractor's facilities? This would eliminate the need to stand up data sources in a development lab at the client's facilities and would provide more accurate data modeling, more representative data volume and a true reflection of the expected throughput for ARMOUR solution performance monitoring.

**A201.**

No, DRDC will not permit the export of Data Source information from the DREnet to contractor facilities for security and privacy reasons.

**Q202.**

With respect to STS section 6.1 (Description of Demonstrations), does the ARMOUR solution need to comply with ITSG security zoning protection recommendations? If ARMOUR is receiving infrastructure and event data from multiple zones at varying levels of sensitivity (e.g. operations zone, security zone) is there a requirement within ARMOUR to add zoning safeguards for its own data source collectors and effectors? Would these safeguard protections similarly apply to segregated enclaves within a zone?

**A202.**

ITSG22 and ITSG38 provide the guidance to Government of Canada organizations with respect to network zoning requirements. As part of the C&A process, the ARMOUR solution will need to comply with the zoning requirements. However, within the ARMOUR solution itself, the modular design of the system and the separation of functionality of data source collectors and effector connectors from the Integration Framework should permit any zoning needs to be implemented without special consideration. Zone Interface Points (ZIPs) between various zones within the network do not preclude the data transfer between those zones, nor should it preclude the functionality provided by the ARMOUR solution.

**Q203.**

With respect to requirement DSC47 from the STS matrix, are the safeguards that are part of ARMOUR itself meant to be reflected in the ARMOUR world model representation? Can ARMOUR effect changes to its own security protection services?

**A203.**

The use of the term "ARMOUR world model representation" is unclear. However, it is not the intent that ARMOUR will monitor itself within the scope of the ARMOUR TD project, although this is not considered outside the potential scope of an operational solution. ARMOUR is not expected to effect changes to its own security protection services.

**Q204.**

Referencing the STS matrix requirements IF25 to IF29, is there clarification available regarding the role, purpose and nature of the policies that will be enforced by the data verification module? Can examples of the type of XACML formatted policy expressions and XACML context messages be provided?

**A204.**

The purpose of the Data Verification module identified in IF25 through IF29 is to control the file types and content of incoming and outgoing information transfers. This is intended, for example, to ensure executable code, malicious code or other malicious command and control traffic can not enter the ARMOUR system and to prevent data leakage or response to adversary command and control traffic. Since the nature of legitimate incoming and outgoing traffic is vendor solution dependent, examples are not available.

**Q205.**

Referencing the STS matrix requirement GR11, the stated requirement is for the observe function to correlate redundant information into a single representation. Can this function be done by other ARMOUR components? For example, can the Data Presentation component provide the user with a unified view that abstracts redundant information?

**A205.**

It is anticipated that the modules of the Computational Services Component may operate on the correlated information in order to have a single consistent view of the network, topology, services, etc. and to improve performance. However, it is recognized that this perspective may be vendor solution dependent and some solutions may not require access to a correlated view within the modules of the Computational Services Component. If this is the case for a vendor solution, then the correlation may, for example, be done as part of the Data Presentation Component.

**Q206.**

In the STS section 4.2.1 (Observe), the Common Infrastructure Abstraction's purpose is for "aggregating or combining common elements within the Normalized Infrastructure Data into a single representation." The stated intent is to reduce the amount of information stored in the Normalized Infrastructure Data. The implication is that, at a given time, there is only one way to aggregate ARMOUR data to the chosen abstraction. By abstracting data in advance, ARMOUR loses the ability to perform subsequent analysis on attacks and vulnerabilities where the abstraction no longer applies. For example, if the CIA abstracts a software package to its major version number and, subsequently, vulnerabilities are discovered that apply to a subset (minor version number) of that software package, the ARMOUR system no longer has the granularity to analyze the impact of such a threat. Can a solution that provides post-hoc abstractions, leaving the original highly granular data in place for future analysis, be submitted as an alternate approach? Note that there is a conflict here in ARMOUR objectives: modularity versus the ability to analyze historical data. A new CIA module will not be able to re-abstract historical data since the original granular data will have been lost.

**A206.**

Recognizing that pre-correlated and pre-abstracted data must still be available in the database after processing by the Common Infrastructure Abstraction module, in accordance with ARMOUR TD System Technical Specification table, item DB14, it is nevertheless understood that not all vendor solutions will require such pre-processing. Therefore, solutions that provide post-hoc abstractions may be submitted as an alternate approach.

**Q207.**

In Amendment 003, the Amendment to the Solicitation (7) on page 32 provides updated wording of section 1.10 on page 9 of 19 of the Annex A, Statement of Work. This updated wording conflicts with requirements DSC2 (line 80) and EC2 (line 438) in the requirements spreadsheet. Can vendors assume that the lists of Data Sources and Effectors in the requirements spreadsheet are intended to match the list of Available Data Sources and Effectors provided in the updated wording given in Amendment 003?

**A207.**

Yes, the items listed in DSC2 and EC2 should match the items listed in section 1.10 on page 9 of 19. An updated STS spreadsheet has been posted to the project sharepoint. The STS spreadsheet is now at V2.2, dated May 2, 2013.

**Q208.**

For the purposes of evaluation, please confirm that the GFI tools will be considered to be COTS, as they are self-contained modules, have been previously developed and validated by DRDC, and have a known TRL level.

**A208.**

The GFI modules that DRDC has mapped to the STS table are not considered COTS products. These modules are not commercially available and have no commercial support structure to name but a few differences between these products and COTS.

For the purposes of evaluation of the RFP, these items are considered developed, proven and tested modules, with their associated TRL levels are mapped to the STS table. They will not be considered as COTS for evaluation purposes.

**Q209.**

Please refer to Q&A 102 published in Amendment 003 for which we are seeking further clarification. Please confirm that there is no requirement for the individual key technical personnel being proposed to have past experience working together as members of the same team on 2 projects similar to ARMOUR TD?

**A209.**

There is no requirement for the key technical personnel to have experience working together on the projects being submitted to meet the requirements of the ARMOUR TDP project.

**Q210.**

Ownership of Intellectual Property

" The ARMOUR system may be distributed via a Research License at no cost to the following entities, including but not limited to, industry, academia, research institutions and allies for research purposes only;"

We believe the most cost effective way to meet the functional and performance requirements of the contract will involve some use COTS components, especially for such areas as high performance data stores and analytics. COTS vendors generally do not allow free licensing.

Q. Please confirm that we can treat COTS software components, together with hardware, as part of the base platform and hence not subject to the no-cost Research License requirement. For

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greater clarity, organizations who receive a no-cost Research License will be expected to procure the hardware and COTS software required to run the ARMOUR solution.

**A210.**

Section 8, Ownership of Intellectual Property, page 10 of 76:

"The ARMOUR system may be distributed via a Research License at no cost to the following entities, including but not limited to, industry, academia, research institutions and allies for research purposes only;

The turnkey ARMOUR system to be distributed by DRDC includes any of the delivered versions of the Software and Documentation in SD 007: System Hardware, Software and Documentation accepted by Canada. The delivered versions that may be distributed include any or all of the following: Initial Version, Final Version, and Iterations at the end of each phase;

The Research Licenses will also permit the Licensee access to DM 004: Code Repository;

The only source code distributed by DRDC will be the source code for Canada owned Foreground Intellectual Property contained in the turnkey ARMOUR System; and

All software components, including Contractor and third-party owned components, incorporated into the turnkey ARMOUR system, must maintain a functionality equivalent to the system delivered to DRDC for each entity testing the system under a Research License and for the duration of the Research License at no additional cost to DRDC or the Research Licensee."

This solution, as outlined in Annex A, Statement of Work, Appendix A - Deliverables, Section 1.13 Licensed Research Community Code hosting and Maintenance, page A5 of A6, requires:

"Dependent vendor software that is not part of the ARMOUR TD project development (e.g., COTS products integrated into the ARMOUR TD project solution) will be included as executable code only and contained in the VM image. This dependent executable code may have limited functionality compared to commercial versions, however, sufficient functionality must be available for the CND research community to conduct ongoing automated CND research and development."

In response, the use of COTS within the solution is possible and encouraged, but it must meet the requirements of the RFP ability to distribute a no cost Research License with no additional procurements required.

**Q211.**

RFP Reference: SACC 4002

Please confirm this clause does not include COTS solutions.

**A211.**

If COTS form part of the proposed solution for the ARMOUR project, and no modifications or changes are required to these COTS to meet the ARMOUR project requirements, than SACC clause 4002 would not apply.

If COTS form part of the proposed solution for the ARMOUR project, and modifications or changes are needed to these COTS to meet the ARMOUR project requirements, than SACC clause 4002 would apply.

**Q212.**

RFP reference: SACC 4004.

For error handling, would Canada accept previously accepted PWGSC terms and conditions from COTS vendors? Terms can be submitted with RFP response.

**A212.**

Error correction services may only be required upon completion of the Basis Requirement under the Optional Services Requirement. Currently, Canada is unable to define the requirement for error correction services. Therefore, if and when a task authorization (TA) is issued under the Optional Services Requirement for these services, then the TA would identify the terms and conditions specific to the work requirement identified therein.

**Q213.**

In Amendment 004, it states:

"After further evaluation of the points allocated for achieving various levels of Canadian Content, Canada has decided that awarding points for Canadian Content in addition to conditionally limiting the procurement to Canadian services does not provide any significant value to Canada."

The key is "conditionally" limiting. How does deleting such points benefit Canada in the situation where there are less than three Canadian providers of these very specialized goods and so all bidders are evaluated? In that case, a rare provider of Canadian high technology goods should be allocated points for providing Canadian goods in order to encourage industry investment in Canadian high technology. Wouldn't that benefit Canada?

**A213.**

During the procurement engagement activities conducted for this ARMOUR TD project, Canada was advised by multiple suppliers that allocating points for achieving various levels of Canadian Content would result in a cost premium to Canada. Canada is not in the position to accept increased financial implications at this time, thus the removal of the points in the solicitation.

In addition, this procurement is for the provision of Research and Development services. Some goods may be utilized in the performance of the Work, but the deliverables are not considered as being specific goods deliverable under the resulting contract.

#### **Q214.**

In regards to Management Evaluation Criteria Section 2.2.1, Project Manager:

"a) Experience, past projects and accomplishments of the Project Manager. Relevant projects are defined as being similar to the ARMOUR project, including, Team size, nature and complexity for software R&D projects."

The RFP states that the Project Manager experience be relevant to "software R&D projects".

Very few academics are project managers at the skill level requested in the RFP. Writing software code to satisfy a deliverable is typically not deemed R&D.

Three types of R&D:

1. Basic research is experimental or theoretical work undertaken primarily to acquire new knowledge about observable phenomena and facts, not directed toward any particular use.
2. Applied research is original investigation to acquire new knowledge directed primarily towards a specific practical aim or objective.
3. Experimental development is systematic effort, based on existing knowledge from research or practical experience, directed toward creating novel or improved materials, products, devices, processes, systems, or services.

Would Canada please consider adjusting this requirement for the Project Manager to match most of the other RFPs with the following:

"a) Experience, past projects and accomplishments of the Project Manager. Relevant projects are defined as being similar to the ARMOUR project, including, Team size, IT Information or CND and complexity."

#### **A214.**

The goal of the ARMOUR RFP is to conduct R&D work and deliver a software product meeting the requirements of the project. To this end, the Project Manager has been decided to be an important component of any bidders team. Having a Project Manager who has worked on software R&D projects, dealing with, for example, the issues, concerns, constraints and variables that are specific to these types of projects, will help ensure success for the ARMOUR project. As a result, the requested change is not acceptable to Canada and the requirement remains unchanged.

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## Amendments to the Solicitation

- 1) **Reference:** Part 2, Bidder Instructions, Section 8. Ownership of Intellectual Property on page 9 of 76 of the solicitation  
**Delete:** the following text:

"The Department of National Defence has determined that any intellectual property rights arising from the performance of the Work under the resulting contract will belong to Canada, on the following grounds:"

and

- Insert:** the following text to replace the above deletion:

"The Department of National Defence has determined that any intellectual property rights arising from the performance of the Work under the resulting contract will belong to Canada, excluding the items listed above, on the following grounds:"

- 2) **Reference:** Part 4, Evaluation Procedures and Basis of Selection, Section 1.1 Technical Evaluation on page 13 of 76 of the solicitation  
**Delete:** Section 1.1 Technical Evaluation, in its entirety, and  
**Insert:** the following Section 1.1 Technical Evaluation to replace the above deletion:

### "1.1 Technical Evaluation

Except where expressly provided otherwise, the experience described in the bid must be the experience of the Bidder itself (which includes the experience of any companies that formed the Bidder by way of a merger but does not include any experience acquired through a purchase of assets by other than an affiliated company). The experience of the Bidder's subsidiary and sister corporations, subcontractors, or suppliers will not be considered. The experience of the Bidder's parent corporation will be considered only if the parent has transferred all relevant operating assets, assignable contracts, employees and know-how to the Bidder."

- 3) **Reference:** Part 7, Resulting Contract Clauses, Section 2.3 SACC Manual Clauses on page 21 of 76 of the solicitation  
**Delete:** Section 2.3 SACC Manual Clauses, in its entirety, and  
**Insert:** the following Section 2.3 SACC Manual Clauses to replace the above deletion:

### "2.3 SACC Manual Clauses

Subject to the terms and conditions of Article 8., Ownership of Intellectual Property of the Contract, Canada will own all Intellectual Property Rights in Foreground Information in accordance with SACC Manual Clause K3410C (2008-12-12), Canada to Own Intellectual Property Rights in Foreground Information.

SACC Manual Clause K3415C (2008-05-12), Commercialization in Canada"

- 4) **Reference:** Attachment 4, Mandatory and Point Rated Criteria on page 37 of 76 of the solicitation  
**Delete:** the following text :

"Except where expressly provided otherwise, the experience described in the bid must be the experience of the Bidder itself (which includes the experience of any companies that formed the Bidder by way of a merger but does not include any experience acquired through a purchase of assets or an assignment of contract). The experience of the Bidder's affiliates (i.e. parent, subsidiary or sister corporations), subcontractors, or suppliers will not be considered for criteria under section 3.1 Corporate Experience of Bidder (Prime) Only."

and

**Insert:** the following text to replace the above deletion:

"Except where expressly provided otherwise, the experience described in the bid must be the experience of the Bidder itself (which includes the experience of any companies that formed the Bidder by way of a merger but does not include any experience acquired through a purchase of assets by other than an affiliated company). The experience of the Bidder's subsidiary and sister corporations, subcontractors, or suppliers will not be considered for criteria under section 3.1 Corporate Experience of Bidder (Prime) Only. The experience of the Bidder's parent corporation will be considered only if the parent has transferred all relevant operating assets, assignable contracts, employees and knowhow to the Bidder."

- 5) **Reference:** Attachment 4, Mandatory and Point Rated Criteria, Section 3.1 Corporate Experience of Bidder (Prime) Only on page 57 of 76 of the solicitation
- Delete:** the following text :

"For the purposes of section 3.1, the experience of the Bidder described in the bid must be the experience of the Bidder itself (which includes the experience of any companies that formed the Bidder by way of a merger but does not include any experience acquired through a purchase of assets or an assignment of contract). The experience of the Bidder's affiliates (i.e. parent, subsidiary or sister corporations), subcontractors, or suppliers will not be considered."

and

**Insert:** the following text to replace the above deletion:

"For the purposes of section 3.1, the experience of the Bidder described in the bid must be the experience of the Bidder itself (which includes the experience of any companies that formed the Bidder by way of a merger but does not include any experience acquired through a purchase of assets by other than an affiliated company). The experience of the Bidder's subsidiary or sister corporations, subcontractors, or suppliers will not be considered. The experience of the Bidder's parent corporation will be considered only if the parent has transferred all relevant operating assets, assignable contracts, employees and know-how to the Bidder."

**All other terms and conditions remain unchanged.**