SHARED SERVICES CANADA

Challenge-Based Solicitation (CBS)
For an Event Broker Solution

Solicitation No.	2B0KB-1874371	Date	15 November 2018
Amendment No.	004	Amendment Date	13 December 2018
GCDocs File No.	32843293	GETS Reference No.	PW-18-00851200

Issuing Office	Shared Services Canada 180 Kent Street, 13th Floor Ottawa, Ontario K1P 0B5
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Closing Date and Time	14:00 21 December 2018
Time Zone	Eastern Standard Time (EST)
Destination of Goods/Services	National Capital Region
Email Address for Submitting your Bid by Solicitation Closing	ssc.pvrdcprojects-arfprojetscd.spc@canada.ca

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SOLICITATION AMENDMENT #004

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This amendment 004 is raised to:

- Amend the solicitation document;
- Amend the solicitation attachments; and
- Respond to Bidder questions 27-48.

The Solicitation document is amended as follows:

1.   At Page 51 **Attachment 4 Evaluation Criteria, R3-1** is amended as follows:

  Insert: **Note 1:** For the purpose of this solicitation, a unique endpoint is defined as a unique application instance that is publishing to or subscribing to the Solution.

The Solicitation attachments are amended as follows:

2.   Publish Annex C Security Requirements Check List (SRCL) Instructions (bilingual).

The following table will be updated throughout the solicitation phase with the respective Amendment #, Amendment date, and Q&A # which will form a Q&A repository for the Event Broker Solution Challenge-Based Solicitation.

ALL OTHER TERMS AND CONDITIONS REMAIN THE SAME

Amdt # Amdt Date	Question #	Reference	Question	Response
002 30 Nov 2018	1	PART 6 Article 6.4	Can companies from Outside Canada can apply for this? (Like, from India or USA)	Yes. Bidders from outside of Canada may submit a bid as long as they are in position to satisfy all obligations under the resulting contract including the ones describe in paragraph 6.4 which states: "The Contractor agrees that, although it may access the Solution remotely, it must do so only from locations within Canada and the Contractor agrees to segregate its network or access to its network in all ways required in order to ensure that no person outside the geographic boundaries of Canada is capable of accessing the Solution remotely using the Contractor's infrastructure."
	2	PART 4 Article 4.3.1.2 and Annex A SOW	Do companies need to come over there for meetings?	During the solicitation process: During Stage 2, the presentation may be made in-person in Ottawa or via teleconference or videoconference at the bidder's choice. During the Contract, as described in the Statement of Work: **1.4.1 Stage 3 Location of Work** The work for Stage 3 will be conducted at the Contractor's facilities. However, for the task of supporting Canada's Prototype Testing (related to Milestone 3), the Contractor may be asked to participate in workshops with the option of teleconference or in-person meetings in Ottawa, Ontario or Gatineau, Quebec. **1.5.1 Stage 4 Location of Work** If Canada exercises Option 1, the Work for Stage 4 must be performed at the Government of Canada

				office located at 255 Albert Street, Ottawa, Ontario K1P 6A9.
				However, the tasks related to providing operational support (Task 4.2) may be carried out remotely via a secure connection to Government of Canada networks using a Government of Canada accepted 2-factor authentication solution.
				1.6.1 Stage 5 Location of Work The Work for Stage 5 must be performed at the Government of Canada office located at 255 Albert Street, Ottawa, Ontario K1P 6A9. The tasks related to providing operational support (Task 5.2) may also be carried out remotely via a secure connection to Government of Canada networks using a Government of Canada accepted 2-factor authentication solution.
	3	PART 6 Article 6.4 and Annex A SOW	Can suppliers perform the tasks (related to RFP) outside Canada? (like from India or USA)	No. See answer to question 2.
	4	PART 3 Article 3.2.1	Can bidders submit the proposal via email?	Yes. See Article 3.2.1 Electronic Submission of Proposals by Email.
	5	N/A	Has the Crown issued an RFI and/or ITQ in relation to this current RFP? If yes, are you able to disclose the solicitation number(s)?	Yes, please refer to the following solicitation number: PW-16-00760893 https://buyandsell.gc.ca/procurement-data/tender-notice/PW-16-00760893
	6	N/A	Due to the very quick turnaround required for submission, and the fact that a vendor meeting is scheduled for November 29 that we assume will assist organizations with further understanding this RFP, would the Crown consider granting a 1 or 2 week extension for submissions?	Solicitation Closing Date extended by 1 week to 1400 hrs 21 December 2018.

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| 7 | PART 1 Article 1.4.1 and Annex A SOW | Can the Crown please provide more details as to how Stage 3: Delivery and Testing the Event Broker Solution Prototype would work for the line on Page 4 of the RFP 'The prototypes must be configured in a publicly available environment (e.g., commercial Cloud)?' Is the Crown expecting organizations to provide their prototype within their own Cloud environment that allows government departments access to test the prototype solution? | Further details are described in Annex A Statement of Work:

1.4.2.5 Stage 3 Milestone Details

a) **Milestone 1: Solution Prototype Delivery**
The Contractor must deliver the Solution prototype within the Contractor's environment but accessible remotely by the Government of Canada. The delivered Solution prototype must provide all functionality defined in the Stage 3 Mandatory Requirements.

The Contractor must provide access to the environment and Solution prototype for up to 30 users that will be testing the prototype. Canada will provide the list of users at least 10 business days prior to the Delivery Date.

Milestone 3: Support Memo
The Contractor must support Canada's effort to integrate with and test the Solution prototype. Testing will begin once the Solution prototype has been delivered (Milestone 1: Solution Prototype Delivery) and last up to 25 business days in duration. Testing will include the functionality listed in the Stage 3 Mandatory Functional Requirements.

As part of the support, the Contractor must:
• Attend workshops scheduled by Canada to walk through the operation of the Solution prototype. These workshops can be attended by either remote teleconference and videoconference or in person at an office in either Ottawa, Ontario or Gatineau, Quebec. Attending in-person or remotely will be at the Contractor's discretion. |

				• Provide step-by-step documentation for executing the functionality described in the Stage 3 Mandatory Functional Requirements. • Assist in troubleshooting any issues with the use of the Solution prototype. After providing this support, the Contractor must provide a Support Memo to reflect that support within 5 working days of completing the support. This Support Memo must contain: • A list of all workshops and support sessions attended; • A list and description of all documentation provided in support for the testing; and • A list of any defects/issues resolved during prototype testing.
	8	PART 1 Article 1.1 and 2.2(b)	Could a bidder submit a proposal with different licensing terms than those defined in the resulting contract?	Article 1.1 of the General Information states: "Canada welcomes software solutions comprised of commercial-off-the-shelf software components, non-commercial (proprietary) software components, open source software components, or any combination thereof. The evaluation methodology does not distinguish between solutions that have components which may be subject to different licensing regimes. Canada will require that COTS and other proprietary software components be licensed to Canada under SACC 4003 and will require that any open source software components be licensed to Canada under the MIT licence. Suppliers must identify during the solicitation period whether they require alternate licensing terms for components in the supplier's potential solution. Suppliers must propose any alternate software licensing terms during the solicitation period so that Canada can consider whether it can accept the alternate license terms."

				If a bidder wants to submit different licensing terms, you must do it during the solicitation period so that, if acceptable, Canada could make them available for all bidders via a formal solicitation amendment. As specified under paragraph 2.2 Enquiries – Solicitation: "All enquiries are requested to be submitted in writing to the Contracting Authority no later than 10 calendar days before the CBS closing date. Enquiries received after that time may not be answered."
	9	PART 1 Article 1.4.1	How quickly must responsive bidders be ready to provide the Presentation defined in Stage 2?		Bidders will be expected to be ready to provide the presentation within approximately 2 business days of being notified that they qualify for Stage 2.
003 7 Dec 2018	10	PART 3 Article 3.4 and Annex B	Is it expected that the pricing limits include all software licenses as well?		Yes. As stated in article 3.4, "Where requested in Attachment 2, the Bidder must provide firm, all-inclusive prices for the Licensed Software and the Subscription Services. These all-inclusive prices must include any upgrade or update that will be required to satisfy the Contractor's obligations described in Annex A Statement of Work."
	11	Attachment 3	In the response template (Attachment 3) the fields are set to a limit of 1000 characters. Our answers may exceed that number. Are we allowed to alter that template or do we have to fit within it?		The correct limit for substantiating each criterion is 5000 characters. The form is updated as a part of this Amendment 3. Any information above the 5000 characters will not be considered.
	12	N/A	Are we allowed to provide hyperlinks within our responses?		No. See the Standard Instructions 2003 (2018-05-22) Section 5, Submission of Bids, paragraph 7. "Unless specified otherwise in the bid solicitation, Canada will evaluate only the documentation provided with a bidder's bid. Canada will not evaluate information such as references to Web site addresses where additional information can be found, or technical manuals or brochures not submitted with the bid."

	13	PART 1 Article 1.1	Who is the vendor of the GC Enterprise Service Bus referenced in section 1.1 of the CBS?	Oracle SOA Suite implemented by Public Services and Procurement Canada (PSPC).
	14	PART 1 Article 1.1	Why not simply extend the API Store project referenced in Section 1.1 to meet the needs of this challenge?	The API Store is functionally very different and does not support asynchronous messaging, so they have very different requirements.
	15	N/A	Based on the stages and options slides, the spending amounts are the same regardless of transaction amounts, correct?	As stated under 6.8.2 Basis of Payment Stages 4 and 5 Ceiling Prices If Canada exercises options 1, 2, 3, 4, or 5, and in consideration of the Contractor satisfactorily completing all of its obligations under the Contract, the Contractor will be paid in accordance with the Basis of Payment in Annex B up to the ceiling prices set out there. The Basis of Payment is based on Implementation Milestones Firm Prices, All-Inclusive Firm Unit Prices for Licensed Software and Subscription Services and Firm All-Inclusive Hourly Rates. The prices to be paid does not vary with the level of transaction.
	16	Attachment 4	In the attachment number 4, there is no proposed architecture for the solution, including interactions, transaction flows or API-based deployments. Can this level of detail please be provided?	The event broker is an industry-standard architectural concept and we are expecting bidders to provide their own proposed architectures. At this point the Government of Canada has decided on a decoupled architecture and we do not believe we have to provide specific architectures for bidders to respond.
	17	N/A	Can we get a copy or recording of the presentation?	The minutes from this meeting, including questions, answers, and the presentation are attached.
	18	N/A	This is a "challenge-based" solicitation. Is it an ITQ, or RFI or RFP based on previous tenders on Buy and Sell Canada?	This is a new approach. It's a solicitation, not an ITQ. It is an open form of request for proposal, a challenge-based procurement.
	19	Attachment 4	What could be the average spool accumulated across all consumers during the outage for RPO?	See the Evaluation Criteria outlined in Attachment 4 as the basis of this average. Specifically, M4-2,

				"Performance requirements" and M5-2 "Recovery Time Objective".
	20	Attachment 4	Can it be assumed that the JMS spec needs to be fully implemented rather than partially? In other words, full support of topics and queues?	Yes, see Attachment 4, R2.1: "The bidder should demonstrate that the proposed solution implements JMS (Java Message Service)."
	21	PART 3 Article 3.2	Could you clearly identify and articulate what is required by the due date? Is it strictly the answers for the mandatories and the requirements of stage one, or is the financial proposal required as well?	The solicitation has been amended to improve the clarity. See amendment above.
	22	Attachment 4	MQ refers to message queuing, FIFO implementations, or the IMB MQ product? When you say MQ compatibility does that mean that we need to connect to MQ or provide MQ as a broker?	The IBM MQ product. The solution should connect to MQ as an endpoint, provider or subscriber. See Attachment 4, R2.2.
	23	Attachment 4	What is the definition of third-party products? If a vendor decides to bundle in open-source libraries are they considered third-party?	The solicitation has been amended to improve the clarity. See amendment above.
	24	Attachment 4	The number of brokers is often dictated by the number of locations. Is the number of physical locations provided?	It is expected to be a centralized location. We are open to vendor suggestions during Stage 4 on the number of physical nodes required to meet the availability and performance objectives (see Attachment 4).
	25	N/A	Is a physically separate disaster recovery site to be assumed?	It is up to the vendor based on the architecture they plan on implementing how they plan to implement disaster recovery and distributed high availability. We are open to suggestions.
	26	N/A	For delivery receipts, who is the intended recipient?	The Government of Canada is not expecting to provide a response to this question at this stage. It is expected that this is a detail of implementation and that it should be addressed during the Stage 3 or Stage 4. If it is expected that this will materially impact a bidder's proposal, it is requested that a follow-up be provided with clarification.
004 13 Dec 2018	27	Attachment 4	R3.3 - Can topics be assumed to have wildcards, given that MQTT is required, and is part of the MQTT specification? JMS can also support wildcard	Yes. See Annex A, Stage 3 Work Article 1.4.2.1:

			based event routing whereby the broker performs the filtering based on matching of wildcard subscriptions to published topic data. Is this a requirement of the event broker capability?	"U2. Establish a topic and send messages to multiple subscribers, i.e. one sender and multiple subscribers. a. Include a condition for subscribers based on a data element in the message, where only messages that meet the condition will be received."
	28	Attachment 4	R3.4 - Is protocol interoperability required? For example, publish REST and subscribe over AMQP?	Yes, protocol interoperability is required.
	29	Annex A SOW	Is event filtering required? (For example, wildcarding based filtering is done by the event broker on topics to get a subset of events delivered to the subscribing applications.)	Yes. See Annex A, Stage 3 Work Article 1.4.2.1: "U2. Establish a topic and send messages to multiple subscribers, i.e. one sender and multiple subscribers. a. Include a condition for subscribers based on a data element in the message, where only messages that meet the condition will be received."
	30	Attachment 4	R3.1 - What Qualifies as a unique endpoint?	For the purpose of this solicitation, a unique endpoint is defined as a unique application instance that is publishing to or subscribing to the Solution.
	31	Attachment 4	What is the deployment topology that is envisioned? Will event brokers be deployed exclusively on-premise, in the Public/Private clouds or some combination thereof?	Deployment topology must support both on-premise and cloud deployments. The deployment topology is not yet defined beyond those requirements. See Attachment 4, M5.4 and M5.5.
	32	Attachment 4	How many sites will require HA broker pairs to be deployed? A site could be a Government-owned Data Centre, or its DR location, or a public cloud VPC (virtual private cloud), etc. This helps define the total number of HA broker pairs that are required.	The Government of Canada is leaving this determination to the bidder based on the bidder's recommendation to achieve the requirements. See Attachment 4, M5.1, M5.2, and M5.3.
	33	Attachment 4	What are the expected transaction volumes and maximum message sizes for the solution?	See Attachment 4 M4.2 for required transaction volumes to be supported. At this time, the Government of Canada is not defining the maximum message size.
	34	Attachment 4	What would your average peak message rate and message size be per site? We are trying to determine the total number of HA pairs per site that are required, based on the message volumes per site.	See response to question #33.

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35	N/A	Would it be possible to give a few examples of workflows you would like to achieve?	Example: Life events (e.g. birth, death) are published to the Solution. These events are subscribed to by multiple GC departments. The GC department may wish to consume the message in a different protocol, therefore requiring protocol translation.
36	Attachment 4	Do you have an approximation of what the maximum number of connections might be per broker HA pair, or if not, what the number would be per site?	See Evaluation Criterion M4.2 for the total required number of unique endpoints.

See response #32 regarding the quantity of HA pairs. |
| 37 | N/A | What is the PaaS provider the SSC is using or considering using for the RFP? For example, Pivotal or OpenShift? Is Kubernetes a part of SSC strategy for container orchestration? | The Government of Canada has made no references to PaaS. |
| 38 | Annex A SOW | What does the engagement model look like once a vendor moves to the next stage, i.e. Will the vendor be responsible for implementing your existing workflows on the message broker or will it be a partnership with GoC employees? More information in this area would be much appreciated. | See Annex A – Statement of Work, Stage 4 Mandatory Support Requirements and Stage 5 Mandatory Support Requirements, S7, S8, and S9.

S7 - The Contractor must provision queues and topics as requested by users.
S8- The Contractor must provision credentials and connection strings.
S9- The Contractor must support onboarding of new message publishers and subscribers. |
| 39 | | Our company and its affiliates have no criminal charges or convictions, etc. – do we need to provide a certificate under Section 5.1.1 of the RFP? We will supply a list of owners under Section 5.1.2. | The Integrity Provisions - Declaration of Convicted Offences should be submitted with the proposal but may be submitted afterwards.

Bidders must provide this information only if it is applicable to them.

An integrity declaration form must be submitted **only** when:

1. the supplier, one of its affiliates or a proposed first-tier subcontractor has, in the past three years, been charged with or convicted of a criminal offence in a country other than Canada that, to the best of the supplier's knowledge and |

				belief, may be similar to one of the listed offences in the <u>Ineligibility and Suspension Policy</u> (the "policy"); and/or
				2. the supplier is unable to provide any of the certifications required by the <u>Integrity Provisions</u>.
	40	Attachment 5 Certification Forms	Form 5.1 – OEM Certification Form - do we need to complete this if our company is the bidder and the OEM?	No.
	41	Annex C SRCL	Annex C – Security Requirement Checklist – attached as a separate document. Page 85 of the RFP – We have not received this attachment.	<u>Annex C SRCL</u> has been released as part of Amendment 3.
	42	PART 3 Article 3.6	Section 3.6 (p.14) - SCSI - Supply Chain Security Information – our company has ~200 shareholders, one of which holds the majority of shares and has the contractual right to appoint a majority of our company's board of directors. The other shareholders are composed of several institutional investors but predominantly employees and former employees. Question: Do we need to name all of our shareholders individually given that they do not control the company?	In situations where there is a majority shareholder that has controlling interest in the company, just their information is required.
	43	Attachment 3	Can we override the 1000 character limit for the technical response document?	See response #11 (Amendment #003)
	44	Attachment 4	M5.2 - what could be the average spool accumulated across all consumers during an outage, for RPO?	See response #19 (Amendment #003)
	45	Attachment 4	What is the definition of 3rd party products? If a vendor decides to bundle in open source libraries, are they considered 3rd party?	See response #23 (Amendment #003)
	46	Attachment 4	M4.1 - delivery receipts - who should get them? Publisher? Or some Audit application?	See response #26 (Amendment #003)
	47	Annex C	SRCL – Annex C - Section 15 says that there are supposed to be additional instructions attached to Annex C, where can we find these additional instructions?	Annex C SRCL Instructions have been released as part of Amendment 4.

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	48	Attachment 4	M6.1. How does Canada expect authentication to be managed and whether there's an existing Active Directory implementation or something similar we're expected to integrate with.	Canada expects the bidder to provide a secure credential management capability. This could include integrating with an existing Active Directory implementation.