REQUEST FOR INFORMATION (RFI)

No: 1000339546

TITLE: WIRELESS HANDHELD DEVICES

Purpose and Contents of this Request for Information

This is a Request for Information (RFI) pertaining to Wireless Handheld Devices.

It is a document written for the purpose of engaging with and eliciting feedback from industry.

The Request for Information consists of the following parts:

- **PART I - Request For Information Process**: Information about the intent of this Request for Information and the procedure for responding;
- **PART II – Questions For Industry:** Questions that industry is invited to answer in their RFI response;
- **PART III: APPENDICES:**

  Appendix A – Wireless Handheld Device Solution

  Glossary and acronyms

  Appendix B – Product Specification Sheet for Wireless Handheld Solution

  Appendix C – Existing CBSA Technical Architecture and Infrastructure

PART I: REQUEST FOR INFORMATION PROCESS

The purpose of the Request for Information (RFI) is to collect information on wireless handheld devices that have border management related technology capabilities such as biometric capture and document reader functionality. The wireless handheld devices will be a self-contained single unit with a rechargeable battery that allows for capture and display of traveller and conveyance information.

This RFI is not a commitment with respect to future purchases or contracts.

1. Introduction

The Canada Border Services Agency (CBSA) has long used various border management technologies to support and facilitate its operation. Wireless handheld devices have been deployed to support traveler and conveyance processing at multiple points of entry. These devices are expected to be end of life in 2020 and will need to be replaced. As a result the CBSA is undertaking this RFI to:

1. Collect information on market readiness and industry capabilities specific to wireless handheld technology that can support border processing;
2. Receive responses from the industry about their product(s); and
3. Solicit the industry to provide an interactive demonstration of how their product(s) address the listed questions, and to discuss their product(s) in detail.

The CBSA intends to use input to help determine the "way forward" as to whether and how this service should be acquired, delivered, and managed and if so, to solidify its procurement approach.

The purpose of this Request for Information (RFI) is to develop a better understanding of the capabilities and maturity of industry with respect to the ability of the private sector to provide goods and/or services to the CBSA.

2. Nature and Format of Responses Requested

This is not a bid solicitation. This RFI will not result in the award of any contract. As a result, potential suppliers of any goods or services described in this RFI should not reserve stock or facilities, nor allocate resources, as a result of any information contained in this RFI. Nor will this RFI result in the creation of any source list. Therefore, whether or not any potential supplier responds to this RFI will not preclude that supplier from participating in any future procurement. Also, the procurement of any of the goods and services described in this RFI will not necessarily follow this RFI. This RFI is simply intended to solicit feedback from industry with respect to the matters described in this RFI.

3. Response Costs

Canada will not reimburse any respondent for expenses incurred in responding to this RFI.

4. Treatment of Responses

(a) **Use of Responses**: Responses will not be formally evaluated. However, the responses received may be used by Canada to develop or modify procurement strategies or any draft documents contained in this RFI. Canada will review all responses received by the RFI closing date. Canada may, in its discretion, review responses received after the RFI closing date.

(b) **Review Team**: A review team composed of representatives of the CBSA will review the responses. Canada reserves the right to hire any independent consultant, or use any Government resources that it considers necessary to review any response. Not all members of the review team will necessarily review all responses.

(c) **Confidentiality**: Respondents should mark any portions of their response that they consider proprietary or confidential. Canada will handle the responses in accordance with the *Access to Information Act*.

(d) **Follow-up Activity**: Canada may, at its discretion, contact any respondents to follow up with additional questions or for clarification of any aspect of a response. Canada may also publish further RFIs related to this initiative.

5. Contents of the RFI

The documents included in the RFI remain a work in progress and respondents should not assume that new clauses or requirements will not be added to any bid solicitation that is ultimately published by Canada. Nor should respondents assume that none of the clauses or requirements will be deleted or revised. Comments regarding any aspect of the draft document are welcome.

6. Volumetric Data

The volumetric information being provided to respondents is purely for information purposes. Although it represents the best information currently available, Canada does not guarantee that the data is complete or free from error.

7. Format of Responses

(a) **Cover Page**: If the response includes multiple volumes, respondents are requested to indicate on the front cover page of each volume the title of the response, the solicitation number, the volume number and the full legal name of the respondent.

(b) **Title Page**: The first page of each volume of the response, after the cover page, should be the title page, which should contain:

i. the title of the respondent's response and the volume number;

ii. the name and address of the respondent;

iii. the name, address and telephone number of the respondent's contact;

iv. the date; and

v. the RFI number.

(c) **Numbering System**: Respondents are requested to prepare their response using a numbering system corresponding to the one in this RFI. All references to descriptive material, technical manuals and brochures included as part of the response should be referenced accordingly.

(d) **Number of Copies**: Canada requests that Respondents submit their response in unprotected PDF (e.g. no password) format by email indicated under the article titled "Enquiries" if the size of the document is less than 6MB.

8. Enquiries

Since this is not a bid solicitation, Canada will not necessarily respond to enquiries in writing or by circulating answers to all Respondents. Enquiries are to be submitted no later than **March 23, 2018**. Respondents may direct their enquiries to:

EMAIL: CBSA-ASFC_Solicitations-Demandes_de_soumissions@cbsa-asfc.gc.ca

Attn: ANIK DEVLIN

9. Submission of Responses

Time and Place for Submission of Responses: Organizations interested in providing a response should deliver it to the Contracting Authority identified above by **March 29, 2018 at 2:00 pm Eastern Daylight Time (EDT)**.

Responsibility for Timely Delivery: Each Respondent is solely responsible for ensuring its response is delivered on time, to the correct location.

Identification of Response: Each Respondent should ensure that its name, address, the solicitation number and the closing date appear legibly on the cover page of the response.

Return of Response: Responses to this RFI will not be returned.

PART II: QUESTIONS FOR INDUSTRY

The CBSA is seeking responses from the industry to the questions below. If a question is not relevant to your Solution, please indicate that with an explanation regarding why the question is not relevant.

The CBSA requests that suppliers provide the following:

Corporate Profile

The industry responding to this RFI should provide the following information:

1. Company name, address, telephone & fax numbers and e-mail address.
2. Company contact name and telephone number.
3. Company background information (location of parent company, contact information for company representative and or distributor in Canada if any, type of product sold and web site address.
4. Identify how long your company has been working with handheld technology.
5. Identify your relationship with the handheld device/component supplier/manufacturer and support provider.

Table 1 – Overview Questions

Item No.	CBSA Question	Vendor Response
1.	Provide an overview of the attributes of your Solution and complete the technical specification sheet appended as Appendix B.	
2.	Is there other functionality provided by your Solution not identified in the Technical specification sheet or alternative solutions that you feel would be of interest to CBSA for this requirement. If so, please describe.	
3.	Identify any clients who are currently using your Solution in a border crossing or related setting.	
4.	Based on the Technical Environment described in Appendix C identify if your Solution can operate in this technical environment or if not what changes would be required.	

Table 2 – Functional and Attribute specific questions

Item No.	CBSA Question	Vendor Response
Devices features		
5.	List the functionality that is affected by moisture or other environmental factors (i.e. Fingerprints not captured, misread scans, etc.)?	
6.	Can your device be ruggedized? If yes, how?	
7.	Describe how your device would provide peer to peer connectivity between the device and a Windows based workstation?	

Item No.	CBSA Question	Vendor Response
8.	Describe the ergonomic features of the device that demonstrate that the device can be easily carried with no more than one hand. Taking into account gender issues concerning varying hand sizes, allowing the other hand to manipulate objects or enter data? Describe any other ergonomic features	
Operating System(OS)/Hardware		
9.	Can the file system be factory reset, loaded manually or through software interface (production ready image)?	
10.	Describe if your image is multi user interface compliant in French and English?	
11.	Do you provide a software interface to your system (API(s)/SDK)?	
12.	Is the software on the devices upgradeable? How is this done? What software development tools would be compatible?	
13.	Describe how devices will be patched without accessing the internet?	
14.	Is the internal memory volatile, non-volatile or both? Please describe.	
15.	Can additional memory be added?	
Security features		
16.	Explain if the device can natively integrate with Microsoft Active Directory.	
17.	Which Mobile Device Management products is your device compatible with?	
18.	Explain how your device can support the preferred standard Government of Canada PKI services such as: a. Microsoft; and b. Entrust.	
Connectivity		
19.	Describe the wireless communication connectivity functionality (e.g. WPA2 enterprise).	
20.	Does the device support simultaneous connectivity to cellular and Wi-Fi?	
Warranty/Support/Licensing		
21.	Describe your warranty, maintenance and support offerings (e.g. pre-deployment, post-deployment, consulting, after-hours support (perhaps by pre-arrangement), 7/24 on-call support, shipping, hot swap turn-around time, direct or indirect support from component vendors etc.) for the Wireless Handheld device.	
22.	How do you license your system? (e.g. types of users, by servers, by CPU, concurrent users, enterprise-wide)	

Alternative Suggestions

Do you (the Responder) have any suggestions and or concerns with respect to the tasks and questions listed in Annex A? If so, please outline your suggestion(s), concern(s) and any recommendations to resolve them.

Follow-up Activity

At its discretion, the CBSA may contact any respondents to request a demonstration of their solution. In such cases the industry will be provided advance notification of the time, date and location of the meeting. The demonstration will be located in the National Capital Region. The exact location and timeframe will be detailed in the invite agenda. However, at no time will the session exceed four (4) hours in length.

The industry session will cover specific technical and general wireless handheld device details based on the questions identified in this document. As such, representatives attending the session should include business and technical Subject Matter Experts (SMEs) in these areas. CBSA personnel with extensive experience in IT and general/operational wireless handheld technology will attend the presentation.

The industry must clearly identify which portions of their response are proprietary.

PART III: APPENDICES

APPENDIX A – WIRELESS HANDHELD DEVICES SOLUTION

Background

The CBSA

The mobile devices and document readers will be used in extreme weather environment across Canada. They will be used in land, marine, rail and air border climate. The devices will be used in operational setting in support and Border Service Officers (BSOs) functions. The response time and connectivity of the devices are critical as BSO must have traveller's information in real time which will allow them to detect potential dangerous situations. In the event of a potential situation, the device could be dropped from the hands of officers in order to access their defensive tools. It is expected that the devices will function adequately after being dropped.

Current Environment

Handheld devices will provide BSOs with the capacity to capture and risk-assess licence plate and biographical traveller information. Licence plate information will be entered manually while traveller information may be read from travel documents presented to an officer. The devices have secure Wi-Fi and cellular connectivity functions, which will allow for communication with CBSA servers for risk assessment and storage of information.

Glossary and Acronyms

Term or Acronym	Definition
AD	Active Directory
AMD	Advanced Micro Devices
API	Application Programming Interface
ATM	Asynchronous Transfer Mode
Border Management Related Technology	Border Management Technology assists the processing of travellers documentation and vehicles license plates at ports of entry upon entering Canada.
BSO	Border Service Officer
CBSA	Canada Border Services Agency
CD/DVD	Compact Disc or Digital Video Disc
CPU	Computer Processing Unit
CRA	Canada Revenue Agency
DCE	Distributed Computing Environment
DSL	Digital subscriber line
eBCI	Electronic Business Computing Infrastructure
GoC	Government of Canada

Term or Acronym	Definition
GPS	Global Positioning System
IBM	Manufactures and sells computer software/hardware
Id	Identification Number
IP rating	Ingress Protection rating
IPSec	Internet Protocol Security
JPEG	Joint Photographic Experts Group - commonly used method of lossy compression for digital photography (image).
LTE	Long-Term Evolution
MDM	Mobile Device Manager
MPLS	Multiprotocol Label Switching
MRZ	Machine Readable Zone
OS	Operating System
PKI	Public Key Information
RCNet	A Private Wide Area Network
RFI	Request for Information
RFID	Radio Frequency Identification
RFID LF	Radio Frequency Identification Low Frequency
RFID HF	Radio Frequency Identification High Frequency
RFID UHF	Radio Frequency Identification Ultra-High Frequency
RFP	Request for Proposal
SDK	Software Development Kit
SMEs	Subject Matter Experts
SPARC-based	Scalable Processor Architecture sun based technology
SRA	Secure Remote Access
Strong 2 factor I/A	establish the validity of a transmission, message, or originator, or a mean(s(of verifying an individual's authorization to receive specific categories of information
TSP	Terminal Services Platform
UNIX platform	Sun/Solaris platform, known internally as Electronic Business Computing Infrastructure
VPN	Virtual Private Network
WPA2	Wi-Fi Protected Access 2
WLAN	Wireless Local Area Network
WPAN	Wireless Personal Area Network
WWAN	Wireless Wide Area Network
zOS	zSeries Operating system

Term or Acronym	Definition
Zigbee	Zigbee is an IEEE 802.15.4-based specification for a suite of high-level communication protocols used to create personal area networks with small, low-power digital radios, such as for home automation, medical device data collection, and other low-power low-bandwidth needs, designed for small scale projects which need wireless connection. Hence, Zigbee is a low-power, low data rate, and close proximity (i.e., personal area) wireless ad hoc network.
1D	One Dimensional Barcode
2D	Two Dimensional Barcode

APPENDIX B – PRODUCT SPECIFICATION SHEET FOR WIRELESS HANDHELD SOLUTION

Complete the technical specification sheet for your Solution. If any details are not applicable just identify them as "n/a" and if there is an additional related information include it as well.

CHARACTERISTICS	INSERT THE SPECIFICATIONS FOR YOUR SOLUTION
PHYSICAL CHARACTERISTICS	
Dimension	
Weight	
Display Viewable in Sunlight?	
Display Size	
Display Type of Touch Technology	
Display Resolution	
Display Material	
Backlight	
Keypads: - Soft/onscreen and/or Tactile	
- Integrated or not integrated (if tactile).	
- Back lit (if tactile)	
- Alpha numeric lay out (both onscreen and tactile as applicable)	
Expansions	
Stylus	
PERFORMANCE CHARACTERISTICS	
CPU	
Operating System	
Storage	
USER ENVIRONMENT	
Operating Temperature (range)	
Storage Temperature (range)	
Humidity	
Drop and/or Tumble Specifications	
Sealing	
IP rating	
DEVELOPMENT ENVIRONMENT	
SDK	
Language	
Environment	
DATA COMMUNICATION	
WWAN	
WLAN	
WPAN	
GPS	
Bluetooth	
Ethernet	
DATA CAPTURE	
Barcode Reader Availability and Type	
Magstripe	
MRZ with accessory	

CHARACTERISTICS	INSERT THE SPECIFICATIONS FOR YOUR SOLUTION	
MRZ with camera and software to read/process		
Other		
Can your device support multiple types of data capture without the need for interchanging of components?		
RFID READER (optional)		
RFID LF	Frequency	
	Protocol	
	Read/Write Range	
RFID HF	Frequency	
	Protocol	
	Antenna Gain	
RFID UHF	Read/Write Range	
Active 2.45 GHZ		
433 MhHz		
CAMERA		
Resolution		
Other features		
FINGERPRINT READER (OPTIONAL)		
Sensor		
Sensor Type		
Resolution		
Performance		
Capacity		
ACCESSORIES		
Standard		
Optional		
BATTERY		
Average life span		
Battery Capacity		
Option to extended life		
Does the device allow automatic sleep capability to minimize battery usage?		
Battery Type		
Quick swap options available		
Charging timeframe for full battery capacity		
Rapid Chargers options		
Replaceable? (Yes or No)		

APPENDIX C - EXISTING CBSA TECHNICAL ARCHITECTURE AND INFRASTRUCTURE

Background

The current Motorola MC75A devices are supported via a combination of GoC standard GC Wifi and 3G cellular services. GoC standard wifi currently offers support for both WPA2-Enterprise and WPA2-Personal connectivity options. We currently leverage WPA2-Personal for the MC75A devices but are negotiating to move to the preferred WPA2-Enterprise model. The CBSA will leverage GoC standard Entrust device certificates for this requirement. In addition to GoC wifi services the CBSA also leverages cellular capabilities for connectivity outside out the defined wifi coverage zones. Many CBSA points of entry are within areas offering 3G and 4G cellular areas of coverage.

The MC75A devices leverage the Netmotion Mobility services for secure VPN communications into the operational network. Netmotion supports the requirement for fully encrypted communications in addition to seamlessly supporting persistent connectivity across both wifi and cellular connections. Persistent connectivity supports operational needs which extend beyond the GoC wifi areas of coverage. The CBSA "standard" VPN offerings for the Windows Win 7/Win 10 devices leverages a Cisco AnyConnect client with user based Entrust PKI certificates. The MC75A is incapable of leveraging the Cisco offering.

Soti MobiControl is leveraged for management of the existing fleet of MC75A devices. The Soti Mobile Device Manager (MDM) provides the existing base of MC75A devices with policy lockdown functionality, software distribution, remote assistance, and reporting. The Soti services are leveraged to facilitate the management of the mobile devices and align to management standards which are provided via Active Directory Group Policies to the CBSA Windows 7/10 platform.

SSC's GC Wifi services represent the primary method of connecting to the CBSA networks. This wifi connectivity will remain the preferred means of connecting the mobile devices. It is desired that the mobile devices selected to replace the MC75A devices be optimized to leverage beyond the basic 802.11a/b/g capabilities of the MC75A.

Additionally, the CBSA would like the replacement devices to provide the ability to support the service levels offered by supporting 3G and 4G capabilities such as LTE. MC75A limitations with 3G only technologies have led to poorly performing connections with low connection speeds and frequent challenges with stable connectivity.