Public Works and Government Services Canada

Travaux publics et Services gouvernementaux Canada

Title - Sujet Microwave Backhaul (Radio) Point to	
Solicitation No. - N° de l'invitation M7594-131471/A	**Date** 2012-12-03
Client Reference No. - N° de référence du client M7594-131471	**Amendment No. - N° modif.** 001
File No. - N° de dossier 008qd.M7594-131471	**CCC No./N° CCC - FMS No./N° VME**

GETS Reference No. - N° de référence de SEAG
PW-$$QD-008-23356

Date of Original Request for Standing Offer
Date de la demande de l'offre à commandes originale   2012-11-21

Solicitation Closes - L'invitation prend fin
at - à   02:00 PM
on - le 2012-12-14

Time Zone
Fuseau horaire
Eastern Standard Time EST

Address Enquiries to: - Adresser toutes questions à:
Van Dusen, Eric

Buyer Id - Id de l'acheteur
008qd

Telephone No. - N° de téléphone
(819) 956-5816 (   )

FAX No. - N° de FAX
(819) 956-0636

Delivery Required - Livraison exigée

Destination - of Goods, Services, and Construction:
Destination - des biens, services et construction:

Revision to a Request for a Standing Offer

Révision à une demande d'offre à commandes

National Master Standing Offer (NMSO)

Offre à commandes principale et nationale (OCPN)

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

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

Comments - Commentaires

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

Security - Sécurité

This revision does not change the security requirements of the Offer.

Cette révision ne change pas les besoins en matière de sécurité de la présente offre.

Instructions: See Herein

Instructions: Voir aux présentes

Acknowledgement copy required	**Yes - Oui**	**No - Non**
Accusé de réception requis		

The Offeror hereby acknowledges this revision to its Offer.
Le proposant constate, par la présente, cette révision à son offre.

Signature   **Date**

Name and title of person authorized to sign on behalf of offeror. (type or print)
Nom et titre de la personne autorisée à signer au nom du proposant.
(taper ou écrire en caractères d'imprimerie)

For the Minister - Pour le Ministre

Issuing Office - Bureau de distribution
Defence Communications Division. (QD)
11 Laurier St./11, rue Laurier
Place du Portage, Phase III, 8C2
Gatineau, Québec K1A 0S5

Canada

Solicitation No. - N° de l'invitation	Amd. No. - N° de la modif.	Buyer ID - Id de l'acheteur
M7594-131471/A	001	008qd
Client Ref. No. - N° de réf. du client	File No. - N° du dossier	CCC No./N° CCC - FMS No/ N° VME
M7594-131471	008qdM7594-131471	

This amendment 001 is raised to change the solicitation closing date to 14 December 2012, 1400h EST, and to address questions that have been raised by bidders.

ALL OTHER TERMS AND CONDITIIONS REMAIN UNCHANGED.

Bidders Questions

Question 1
Annex A-SOR-Technical section 1.1: RFSO calls for PTP and PMP but there are limited references to PMP beyond this section.   Are we to assume that any reference to PTP beyond this section implicitly entails PMP as well? Also, would it be in the interest of the government to have a single hardware platform capable of operating in either PTP or PMP mode as opposed to having multiple of hardware solutions?

Answer 1
All references should be based on PTP.

Question 2
Annex A-SOR Section 4.3 includes a requirement to export GPS data. Does this imply that all radios need to have GPS capability or should this be considered an optional feature?

Answer 2
All radios require the GPS capability.

Question 3
Section 7.3.1 requires that the product is offered with a two lightning protectors, one on the tower and the other at the building entrance.   If the radio is designed with an integrated LPM meeting similar specs as an LPM, would the government accept that we discard the external LPM on the tower yet still be compliant to the requirement for LPM installed in the tower? In this case, only one lightning protector would be necessary at the shelter per installation.

Answer 3
Two external LPM's must be supplied.

Question 4
Annex C, Pricing Table 1:   We note that the pricing table expects a single unit price for the System management software.   As a rule, these software packages are not licensed based on a single unit radio but rather at a specified network unit count i.e. 20 elements, 50 elements, 1000 elements. Would the government consider adding lines for different unit count breaks for the System management software?

Answer 4
The system management software price is based on managing a minimum one link (two radios).

Solicitation No. - N° de l'invitation	Amd. No. - N° de la modif.	Buyer ID - Id de l'acheteur
M7594-131471/A	001	008qd
Client Ref. No. - N° de réf. du client	File No. - N° du dossier	CCC No./N° CCC - FMS No/ N° VME
M7594-131471	008qdM7594-131471	

Question 5
Annex C, Pricing Table 1: Section 1.10 of Annex A specifies that the radio must be supplied
in pairs to form a link.   Should we understand that line 1.1 of the pricing table is for a
single radio or a pair of radio?

Answer 5
Pricing is based on a single radio.

Question 6
Annex C, Pricing Table 1: The radio is supplied with accessories such as mounting kit, PoE
injector, and lightning protector. Shall we add these items to the basic radio price in line 1.1
or shall we add line items for the various accessories? For instance, a PoE injector can be
supplied with either an AC or DC power input which would affect the overall price.

Answer 6
Each Radio must include hardware mounting kits (capable of withstanding the expressed
environmental specifications), PoE injector, and the specified lightening protection. The PoE
injector must be AC powered.

Question 7
Annex A-Statement of Requirement (SOR) -Section 9.3.1: Meet environment requirements
detailed in section 8 of the Statement of Work (SOW). Seeking clarification as Section 8
deals with Global Requirement for Software. I assume section it meant is Section 7.

Answer 7
Yes, Annex A-Statement of Requirement (SOR) -Section 9.3.1 Should read:
"Meet environment requirements detailed in of section 7 of the Statement of Work (SOW)"

Question 8
Annex A-SOR-Section 10.16: The PTP radio must include the functionality to synchronize
communication frames with the Global Positioning System (GPS) timing. Can you please
clarify what is being requested to be synchronized in the system? For example, is this a
requirement for precise GPS frame synchronization between the master and slave radios in
a Pt to Pt link?

Answer 8
PTP radios must include the functionality to synchronize communications using GPS timing.

Question 9
Section I: Technical Offer: The offeror must explain and demonstrate how they propose to
meet the requirements and how they will carry out the Work. Can you please clarify what is
meant by 'carry out the Work'? Will compliance with Annex A - Statement of Work suffice as
contractor's explaination & demonstration to meet requirements?

Answer 9
Yes, it is sufficient to demonstrate compliance with Annex A -SOR.

Question 10
Annex C -Basis of Payment-Pricing Tables: Pricing Table1, 2, & 3 shows unit pricing for year
1, 2, 3, Option year 1 Option year 2. What is the Crown's guide for pricing? Typically, our

Solicitation No. - N° de l'invitation	Amd. No. - N° de la modif.	Buyer ID - Id de l'acheteur
M7594-131471/A	001	008qd
Client Ref. No. - N° de réf. du client	File No. - N° du dossier	CCC No./N° CCC - FMS No/ N° VME
M7594-131471	008qdM7594-131471	

business bases its pricing on anticipated volumes. That information is not provided. We are seeking guidance on this.

Answer 10
Prices are based on unit pricing.

Question 11
Annex A-SOR Section 4.1 refers to the security upgrade to FIPS 197 with AES 256 encryption.

Considering that RCMP is the country's national police organization, the security of data integrity is paramount to police operations and that any claims of security support is extremely hard to verify for networking products. Security certification almost always has different levels of compliancy. Would it be in the interest of the Government, in order to properly evaluate the various implementations of the standard, to require bidders to demonstrate the various levels of certifications through standard NIST Documentation? For example, referring to an approved list that can be found in the Advanced Encryption Standard (AES) Algorithm Validation List, (http://csrc.nist.gov/groups/STM/cavp/documents/aes/aesval.html).

Answer 11
No, Not at this time.

Question 12
Annex A-SOR Section 4.1 refers to the security upgrade to FIPS 197 with AES 256 encryption.

Considering the overall security requirement of the RFSO, would it also be to the advantage of the government to require FIPS 140-2 level certification or to demonstrate the commitment to achieve certification for products included in the RFSO responses? FIPS 140-2 is recognized as a de facto requirement for a large number of security agencies and government organizations both in Canada and abroad and providing this level of security would be in line with the requirement of the products to be used by the RCMP. FIPS 140-2 certification is a process that takes well over a year to complete and every stage is monitored on the publicly available NIST list.
a.   Certified implementation:
http://csrc.nist.gov/groups/STM/cmvp/documents/140-1/140val-all.htm
b.   In process of certification:
http://csrc.nist.gov/groups/STM/cmvp/documents/140-1/140InProcess.pdf

Answer 12
No, Not at this time.

Question 13
Annex A-SOR Section 4.3 requires the PTP radios to support the ability to export the GPS coordinates to a mapping tool. The support would require a GPS receiver and antenna to be installed at each location where a radio was deployed in the network. This will be the only method available for the remote radios to obtain the required GPS coordinate information and for these details to then be made available for polling by a remote management

Solicitation No. - N° de l'invitation	Amd. No. - N° de la modif.	Buyer ID - Id de l'acheteur
M7594-131471/A	001	008qd
Client Ref. No. - N° de réf. du client	File No. - N° du dossier	CCC No./N° CCC - FMS No/ N° VME
M7594-131471	008qdM7594-131471	

system. Can the government please confirm that each PTP radio deployed in the network will require this functionality?

Answer 13
Yes, each unit requires this functionality.

Question 14
Annex A-SOR Section 10.6: There are two types of MIMO (Multiple Input, Multiple Output) support available for wireless radio systems today. They are MIMO Matrix A and MIMO Matrix B. Matrix A is used for long links or links with poor LOS and can add to the link's system gain through the implementation of STBC (Space Time Block Code). MIMO B can double the throughput with links that have LOS and high signal to noise ratio through the implementation of Spatial Multiplexing. Would it be of interest to the government to be more specific in the types of MIMO available for the proposed solutions?

Answer 14
No, requirement is as specified.

Question 15
Annex A-SOR Section 10.11 requires Ethernet data rates up to 100 Mbps. For IP based networks, Ethernet data rates can fluctuate with packet size. So a network device that supports 100Mbps, may be able to transmit at wire-speed for large packet sizes (e.g. 1536 bytes), but could have challenges with smaller packet sizes. For example, voice and video metadata may require very small packet sizes.   If a radio is capable of handling 12,000 packets per second, this will allow the device to deliver 100Mbps when using 1024 Byte packets while only delivering 6.15 Mbps with 64 byte packets.

Given the above, would the government consider adding the requirement to specify the packet processing capability (usually referenced as packets per seconds or pps value) for the proposed products that would be submitted in response to this RFSO?

Answer 15
No, requirement is as specified.

Question 16
Annex A-SOR Section 10.13: For most radio systems, the Transmit (Tx) Power will vary based on the different modulation rates that are supported for the platform. This modulation rate will be determined based on the quality (or Signal-to-Noise value) for the radio transmission. Considering the requirement for low latency of this RFSO and the mandatory performance of 100Mbps, both of which are tied to the highest level modulation rate for any given radio, would the government consider modifying the requirement to require the inclusion of the transmit power at the highest level modulation for the proposed radio systems? This would be in line with the latency and performance requirements, and provide the government with a far more relevant comparison of performance between the solutions.

Answer 16
No, requirement is as specified.

Solicitation No. - N° de l'invitation	Amd. No. - N° de la modif.	Buyer ID - Id de l'acheteur
M7594-131471/A	001	008qd
Client Ref. No. - N° de réf. du client	File No. - N° du dossier	CCC No./N° CCC - FMS No/ N° VME
M7594-131471	008qdM7594-131471	

Question 17
Annex C- Basis of Payment

The solution being developed to meet the requirements of this RFSO is based on a modular platform that can accommodate configuration from 5Mbps to 100Mbps, T1 interfaces, etc. Considering the requirements of RCMP to have both 100Mbps (Section 10.11), T1 interface (Section 10.11.1) and minimum of 5Mbps over 55km (Section 10.11.2), it seems apparent that RCMP may or may not need these functionalities with all radio links.

With this in mind, would it be of interest to the government that the proposed solution includes a baseline link configuration and provide the other functionalities as options? This would allow the government a substantial saving for links that require the minimum configuration (i.e. strictly IP, 5Mbps) while ensuring that any link can be field upgradeable to the full service level (100Mbps, T1 interface, etc.) should the field requirement change in the future for the network. If the government sees value in these potential savings, in which section of the financial response should the vendor include this information and related price details?

Answer 17
No, the RCMP requires all units to be the same. The radio's IP interface must be able to operate with, and connect to, a T1 interface module.

Question 18
Would the government accept that we provide a list of options, services and spare components that would enhance the solution offering for specific applications (i.e. video streaming, voice services, etc.) and provide better overall value to the government? Would it be appropriate to present these in a separate section of the pricing table or is there another recommendation location of the response that should be used to provide these details?

Answer 18
Yes, the offeror may add a list of options, services, and spares. Please present such content in a separate section from the pricing table.

Question 19
 Annex A- SOR 1.1   This requirement is for Point to Point (PTP) and Point to Multipoint (PTMP) microwave and RF radios in the 4.9 Ghz, 5.8 Ghz Bands

In the rest of the document, there is ONLY reference to Point to Point (PTP). Can we please get clarification on this? It does appear that they will require Point to Multipoint (PTMP) as well. Annex C only mentions Point to Point (PTP).

Answer 19
The Requirement is for Point to Point only.