NCIA/ACQ/ASG/2015/1485
28 September 2015

Market Survey - Request for Information

Project "Provide BRE1TA (BRASS Enhancement-1) Software and Beyond-Line-of-Sight Access Points (BLOS AP) with RMD (Remote Monitoring Diagnostic) and Training Capability"
Project Serial Number 2015/0CM03074
Capability Package CP9A0101 "Wireless Communication Transmission Services (Other Than SATCOM)"

NCI Agency Reference: MS-CO-14158-BRE1TA

NCI Agency is seeking information from Nations and their Industry regarding the availability of Commercial-Off-The-Shelf (COTS) and Government-Off-The-Shelf (GOTS) software to deploy BRASS Enhancement-1 software.

NCI Agency Point of Contact (POC): Ms. Viktorija NAVIKAITĖ

E-mail: viktorija.navikaite@ncia.nato.int

To: Distribution List (Annex A)

Subject: **NCI Agency Market Survey**
Request for Information MS-CO-14158-BRE1TA

1. NCI Agency requests the assistance of the Nations and their Industry to identify potential COTS/GOTS solutions available to meet the NATO requirement for providing a BRASS Enhancement-1 software. This Market Survey is being issued to identify potential solutions and possible suppliers for NATO's enhancement of the current High-Frequency Broadcast, Maritime-Rear-Link, and Ship-Shore (BRASS) services to provide network-enabled beyond-line-of-sight capability to deployed NATO and Allied Forces.

2. In addition to the firms noted in Annex D of this letter (who are current holders of Basic Ordering Agreements (BOA) with NCI Agency), NCI Agency requests the broadest possible dissemination by Nations of this Market Survey Request to their qualified and interested industrial base.

NATO Communications and Information Agency
Agence OTAN d'information et de communication
Avenue du Bourget 140
1140 Brussels, Belgium
www.ncia.nato.int

3. A summary of this emerging requirement is set forth in the Annex B attached hereto. Respondents are requested to reply via the questionnaire at Annex C. Other supporting information and documentation (technical data sheets, marketing brochures, catalogue price lists, descriptions of existing installations, etc.) are also desired.

4. The NCI Agency reference for this Market Survey Request is **MS-CO-14158-BRE1TA**, and all correspondence and submissions concerning this matter should reference this number.

5. Responses may be issued to NCI Agency directly from Nations or from their Industry (to the staff indicated at Paragraph 8 of this Market Survey Request). Respondents are invited to carefully review the requirements in Annex B.

6. Responses shall in all cases include the name of the firm, telephone number, e-mail address, designated Point of Contact, and a NATO UNCLASSIFIED description of the capability available and its functionalities. This shall include any restrictions (e.g. export controls) for direct procurement of the various capabilities by NCI Agency. Non-binding product pricing information is also requested as called out in Annex C.

7. Responses are due back to NCI Agency no later than **17:00 Brussels time 9 October 2015**.

8. Please send all responses either via post or email to the following NCI Agency Point of Contact:

To Attention of:	Ms Viktorija NAVIKAITĖ
Postal address:	NCI Agency Acquisition Avenue du Bourget 140 B-1110 Brussels Belgium
E-mail:	viktorija.navikaite@ncia.nato.int

9. Product demonstrations or face-to-face briefings/meetings with industry are not foreseen during this initial stage. Respondents are requested to await further instructions after their submissions and are requested not to contact directly any NCI Agency staff other than the POC identified above in Paragraph 8.

10. Any response to this request shall be provided on a voluntary basis. Negative responses shall not prejudice or cause the exclusion of companies from any future procurement that may arise from this Market Survey. Responses to this request, and any information provided within the context of this survey, including but not limited to pricing, quantities, capabilities, functionalities and requirements will be considered as information only and will not be construed as binding on NATO for any future acquisition.

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11. The NCI Agency is not liable for any expenses incurred by firms in conjunction with their responses to this Market Survey and this Survey shall not be regarded as a commitment of any kind concerning future procurement of the items described.

12. Your assistance in this Market Survey request is greatly appreciated.

FOR THE GENERAL MANAGER:

for L.T. Herway
Chief of Contracts

Enclosures:
Annex A (Distribution List)
Annex B (Market Survey Request - Summary of Requirements, Project 2005/0CM03074)
Annex C (Market Survey Request - Questionnaire)
Annex D (Market Survey Industrial Recipients (holders of NCI Agency BOA Agreements))

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ANNEX A to
NCIA/ACQ/ASG/2015/1485

ANNEX A
Distribution List for Market Survey Request for Information
MS-CO-14158-BRE1TA

Potential Industrial Suppliers (NCI Agency BOA Holders)	1

NATO Delegations (Attn: Investment Adviser):

Albania	1
Belgium	1
Bulgaria	1
Canada	1
Croatia	1
Czech Republic	1
Denmark	1
Estonia	1
France	1
Germany	1
Greece	1
Hungary	1
Iceland	1
Italy	1
Latvia	1
Lithuania	1
Luxembourg	1
Netherlands	1
Norway	1
Poland	1
Portugal	1
Romania	1
Slovakia	1
Slovenia	1
Spain	1
Turkey	1
The United Kingdom	1
The United States of America	1

Belgian Ministry of Economic Affairs	1

Embassies in Brussels (Attn: Commercial Attaché):

Albania	1
Belgium	1
Bulgaria	1
Canada	1
Croatia	1
Czech Republic	1
Denmark	1
Estonia	1

France	1
Germany	1
Greece	1
Hungary	1
Iceland	1
Italy	1
Latvia	1
Lithuania	1
Luxembourg	1
Netherlands	1
Norway	1
Poland	1
Portugal	1
Romania	1
Slovakia	1
Slovenia	1
Spain	1
Turkey	1
The United Kingdom	1
The United States of America	1

ANNEX B
Summary of Requirements
Project ID 2015/0CM03074, CP9A0101

The primary deliverable, the BREITA software, produced by this project will be the foundation of other national BLOS AP projects included in Capability Package CP 9A0101.

With the deployment of BREITA SW and other minor HW modifications, the NATO and National broadcast, maritime rear link (MRL) and ship-to-shore systems (BRASS) will be named BLOS AP systems and provide the following additional capability clusters to fulfil some operational requirements for NATO Network-Enabled Capability (NNEC).

- Cluster #1 - Enhanced Over-the-Air Information Services:
  - Improved over-the-air messaging, to include formal messaging in accordance with X.400 [ITU-T X.400, 1999] and NATO STANAG 4406, [2006] for tactical military message handling systems (T-MMHS);
  - Informal messaging in accordance with the simple mail transfer protocol (SMTP), including capability for attachments and extensions for PKI and S/MIME;
  - Instant-Messaging (i.e. Chat) and Presence services (e.g. XMPP extensible messaging and presence);
  - Web and data services, to include data-replication and streaming services;
  - Directory services in accordance with X.500 [ITU-T X.500, 2005] and ACP 133.

- Cluster #2 – Enhanced Over-the-Air-Bearer Services:
  - Improved HF throughput, by the introduction of modems exploiting higher speed HF waveforms, up to 9600 bits per second (bps) in 3-kHz channels and 19.2 kilobits per second (kbps) in 6-kHz independent side-band (ISB) channels;
  - Internet protocol (IP) over HF based on NATO Standardization Agreement (STANAG) 5066 Edition 3 Annex F;
  - Performance Enhancing Proxies for mail, messaging, and web exchange, as well as for throughput acceleration (e.g., through data compression and caching technologies) and disruption/delay tolerance, which will allow network-enabled applications access and effective use of these comparatively low-bandwidth HF systems within an NNEC environment.

- Cluster #3 – Enhanced Wireless Management Services:
  - Support for mobile IPv4 based on IETF RFC 3344, and supporting standards;
  - Support for Enhanced Frequency Management and link Automation (through implementation of Automatic Link Establishment [ALE] capability for point-to-point link and network setup; ionospheric sounding, whether cooperative or non-cooperative means; real-time broadcast-area coverage-prediction and correction).

These enhancements to the BRASS architecture are viewed as the first steps to realizing full integration of NATO Maritime HF communication capability with the NNEC environment. These enhancements are not intended to eliminate the capabilities of BRASS Initial Core

Capability (BICC) from which significant assets are planned to be reused to implement BLOS AP projects in the CP 9A0101.

The key capabilities to be provided through deliverables of the project are:

- State-of-the-art, platform independent, fully portable, easily maintainable BREITA Software that will drive the BLOS AP systems;

- Enhanced information systems and communication hardware that enables the System Test, Integration, Verification and Remote Monitoring and Diagnostic (STIV-RMD) capability to meet BRASS Enhancement 1 Target Architecture requirements;

- Remote-monitoring, test, and diagnostic capability, commensurate and coordinated with the capabilities of the CP9A0101 Centralized Management Interface project, 0CM03069, to support the project's role as NATO's reference system and interoperability test standard for national BLOS AP projects.

- Training Packages that include self-training environment to the BRASS and BLOS AP system users on different roles (Operator, maintainer etc.) and on-site training capability that facilitates user's trainings at STIV-RMD system.

ANNEX C
Questionnaire

Organisation name: _____

Contact name & details within organisation: _____

Notes

- Please **DO NOT** alter the formatting. If you need additional space to complete your text then please use the 'Continuation Sheet' at the end of this Annex and reference the question to which the text relates to.
- Please feel free to make assumptions, *HOWEVER* you must list your assumptions in the spaces provided.
- Please **DO NOT** enter any company marketing or sales material as part of your answers within this market survey. But please submit such material as enclosures with the appropriate references within your replies. If you need additional space, please use the sheet at the end of this Annex.
- Please **DO** try and answer the relevant questions as comprehensively as possible.
- All questions within this document should be answered in conjunction with the summary of requirements in Annex B.
- All questions apply to Commercial or Government respondees as appropriate to their Commercial off the Shelf (COTS) or Government off the Shelf (GOTS) product.
- Cost details required in the questions refer to Rough Order of Magnitude (ROM) Procurement & Life Cycle cost, including all assumptions the estimate is based upon:
  - Advantages & disadvantages of your product/solution/organisation,
  - Any other supporting information you may deem necessary including any assumptions relied upon.

1. **Did you produce a software product providing STANAG 5066 Edition 3 with the High-Frequency Wireless Token-Ring-Protocol (Annex L), and IP-client (or Ether-client) interface (Annex F)? Does the product implement full-duplex modes of operation, both ARQ and non-ARQ? Does the product additionally include TCP-IP performance-enhancing proxies for use on low-speed / high-latency HF links? Does the product implement robust IP Header Compression? If you produced such a product, what are the license or unit costs and the pricing model for the COTS/GOTS solution you have developed? If it has not been developed, do you have any plans to do so and when? What is the estimated cost range for necessary developments to implement these requirements?**

2. **Did you produce a software and/or hardware product for 2nd or 3rd generation ALE (Automatic Link Establishment) capabilities that can be used in a split-site mode of operation (i.e., with a transceiver in which transmitter and receiver are located at separate locations)? If you produced such a product, what are the license or unit costs and pricing model for the COTS/GOTS solution you have developed? If it has not been developed, do you have any plans to do so and when? What is the estimated cost range for necessary developments to implement these requirements?**

3. **Did you produce a "mediation platform" or comparable product for service management having the capability of collecting information from different nodes (sites/Nations) related to the status of their High-Frequency radios or networking hardware and services (e.g., using the Simple-Network Management Protocol (SNMP) version 3 or adaptation-code for proprietary equipment controls)? If you produced such a product, what are the license or unit costs and pricing model for the COTS/GOTS solution you have developed? Is it capable of providing SNMP management across security domains? If it has not been developed, do you have any plans to do so and when? What is the estimated cost range for necessary developments to implement these requirements?**

4. **Did you produce any software and/or hardware product for HF radio communications that provides enhanced over-the-air information services (i.e., messaging, chat, web, data replication) or provides wireless management services (i.e., off-the-shelf ionospheric sounding capability or wireless mobile-IP over low-bandwidth)? If you produced such a product, what are the license or unit costs and pricing model for the COTS/GOTS solution you have developed? If it has not been developed, do you have any plans to do so and when? What is the estimated cost range for necessary developments to implement these requirements?**

5. **Related to Item 4, did you produce any software and/or hardware product that performs non-cooperative ionospheric sounding, i.e.: a system that monitors known transmissions from commercial or other known HF stations to obtain real-time measures of HF propagation performance and coverage? If you produced such a product, what are the license or unit costs and pricing model for the COTS/GOTS solution you have developed? If it has not been developed, do you have any plans to do so and when? What is the estimated cost range for necessary developments to implement these requirements?**

6. **Did you produce any software and/or hardware product to tune mobile IP for low bandwidth or high-latency HF radio communication? If you produced such a product, what are the license or unit costs and pricing model for the COTS/GOTS solution you have developed? If it has not been developed, do you have any plans to do so and when? What is the estimated cost range for necessary developments to implement these requirements?**

7. **For your software product, do you license executable code only, or also the source code? Please describe the cost model.**

8. **Did you produce any other similar software or hardware equipment that could be applicable to the requirements summarized in Annex-A, and that was not specified in the questions above?**

Continuation Sheet Please feel free to add any information you may think that may be of value to NCI Agency in the space provided below. Should you need additional space, please copy this page and continue with the appropriate page numbers.	Page __ Of __

ANNEX D
Potential Industrial Suppliers
NCI Agency Basic Ordering Agreement (BOA) Holders on Distribution
MS-CO-14158-BRE1TA

ALBANIA:

BELGIUM:
AKACIO
ATOS
Computer Sciences Corporation
Thales S.A.
UNIFY

BULGARIA:

CANADA:
General Dynamics Canada Ltd.
Network Innovations Inc.

CROATIA:
CROZ d.o.o. za informaticku djelatnost

CZECH REPUBLIC:

DENMARK:

ESTONIA:

FRANCE:
Altran technologies_ASD Paris
Cassidian SAS

GERMANY:
FREQUENTIS Nachrichtentechnik GmbH
Hagenuk Marinekommunikation GmbH
Rohde & Schwarz GmbH & Co. KG
T-Systems International GmbH

GREECE:

HUNGARY:

ICELAND:

ITALY:
Italtel
Vitrociset S.p.A.

LATVIA:

LITHUANIA:

LUXEMBOURG:

NETHERLANDS:
Uni Business Centre BV

NORWAY:
3D perception AS

POLAND:
Atende S.A.(prior ATM S.A.)
Zbar Phu Mariusz Popenda

PORTUGAL:

ROMANIA:
UTI Grup S.A.

SLOVAKIA:
Aliter Technologies a.s

SLOVENIA:

SPAIN:

TURKEY:

THE UNITED KINGDOM:
Audax
Clearswift Ltd.
Isode Ltd
Thales UK Limited

THE UNITED STATES OF AMERICA:
AATD, LLC
AT&T Government Solutions, Inc.
Affigent, LLC
BAE Systems Information Solutions Inc.
DRS Technical Services, Inc.
EMW, Inc.
Honeywell Technology Solutions Inc.
ManTech International Corporation
Raytheon CompanyNetwork Centric Systems
Trace Systems
URS Federal Services International Inc
Vykin Corporation