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NCIA/ACQ/2017/1054  
27 February 2017

To: Distribution List

Subject: **Amendment 1 to the Notification of Intent to Invite Bids for International Competitive Bidding to Upgrade Geographic Information Services Increment 3. IFB-CO-14179-GIS**

References: A. AC/4-D/2261(1996 Edition)  
B. Project Serial 2014/OIS03098  
C. AC/4(PP)D/27046-ADD1  
D. AC/4(PP)D/27046-ADD2  
E. AC/4-DS(2015)023

1. In accordance with paragraph 6(C) of Reference A, notice is hereby given of the intent of the NCI Agency to re-open the eligibility list of prospective bidders for a period of 4 months (until 27 June 2017) in order to advise prospective bidders of the expanded technical scope of this future procurement as well as for the possible addition of any other eligible bidders and/or deletion of existing bidders.
2. It is requested that newly interested firms contact their National Authorities and have them send the required "Declaration of Eligibility"(including personnel and facility security certification at the NATO SECRET level) directly to the NCI Agency.
3. In addition to the certifications required under this NOI, the Declarations of Eligibility shall include the following information for each of the nominated firms: name of the firm, telephone number, e-mail address, and Point of Contact. This information is critical to enable prompt and accurate communication with prospective Bidders. The Declaration of Eligibility can be sent via email or mail to:

NATO/ NCI Agency  
Acquisition Directorate  
Attn: Ms. Ijeoma Ezeonwuka (x8104)  
Avenue du Bourget 140, Bâtiment Z  
B-1110 Brussels, Belgium  
Tel: +32 (2) 707 8104  
E-mail: [ijeoma.ezeonwuka@ncia.nato.int](mailto:ijeoma.ezeonwuka@ncia.nato.int)



NATO Communications  
and Information Agency  
Agence OTAN d'information  
et de communication  
Avenue du Bourget 140  
1110 Brussels, Belgium  
[www.ncia.nato.int](http://www.ncia.nato.int)

4. It is emphasised that requests for participation in this competition received directly from individual firms shall not be considered.
5. Details regarding a Bidder's Conference, if applicable, will be included in the Invitation For Bid (IFB) document.
6. Ms. Ijeoma Ezeonwuka is the Agency point of contact for this procurement and may be reached at [ijeoma.ezeonwuka@ncia.nato.int](mailto:ijeoma.ezeonwuka@ncia.nato.int).

FOR THE GENERAL MANAGER:

A handwritten signature in black ink, appearing to be 'IJEOMA EZEONWUKA', written in a cursive style.

Ms. Ijeoma Ezeonwuka  
Contracting Officer

## **NOTIFICATION OF INTENT**

### **Upgrade Geographic Information Services Increment 3**

#### **IFB-CO-14179-GIS**

Estimated Value: Investment scope (EUR 8.7M) including 1 year Warranty

The scope of this upcoming opportunity is anticipated to be an upgrade of the Core GIS system addressing deficiencies and new requirements; upgrading the software baseline provided under Increment 2; ensuring common functional capability across all Core GIS sites; and making Core GIS compatible with DCIS.

The IFB is envisaged to be issued in September 2017 with a Bid Closing Date in December 2017 and Contract Award in March 2018.

**NCI Agency POC: Ms. Ijeoma Ezeonwuka**

E-mail: [ijeoma.ezeonwuka@ncia.nato.int](mailto:ijeoma.ezeonwuka@ncia.nato.int)

To : See Distribution List

Subject : **NOTIFICATION OF INTENT (NOI) TO INVITE BIDS, IFB-CO-14179-GIS "Upgrade Geographic Information Services Increment 3 – CP9C0150"**

Reference(s) : A. AC/4-D/2261(1996 Edition)  
B. AC/4(PP)D/27046-ADD1  
C. AC/4(PP)D/27046-ADD2  
D. AC/4-DS(2015)023  
E. AC/4-DS(2017)002

1. In accordance with Reference (C), notice is hereby given of the intent of the NATO Communications and Information Agency (NCI Agency), as the Host Nation, to issue an Invitation for Bid (IFB) in relation to the implementation of the project "Upgrade Geographic Information Services Increment 3 – CP9C0150". Note that the issuance of the Invitation for Bid (IFB) is subject to prior authorisation from the Investment Committee.
2. A summary of the updated scope and requirements of the Invitation for Bid is set forth in Annex A, attached to this letter. These requirements are being refined and detailed as part of the preparation of the IFB.



3. The reference for the IFB will be **IFB-CO-14179-GIS**, and all correspondence concerning this IFB should reference this number.
4. The scope of work for this project has been authorised as recommended by References (D) and (E). The estimated cost for the services and deliverables included within the basic scope of the intended contract is EUR 8.7 M of Investment Cost. The IFB will include evaluated options for additional sites in Kosovo and Afghanistan. Optional CLINS will be included for 2nd to 5th year warranty as well. This additional effort would be subject to a separate financial authorisation from NATO funding authorities.
5. Following authorisation from the IC, the NCI Agency will use the International Competitive Bidding (ICB) Procedure, Lowest Compliant Bid Procedures. It is planned to award a single firm-fixed price contract for the entire scope of work with an expected duration of 33 months with options for additional sites in Kosovo and Afghanistan as well as for up to 5 additional years of maintenance after the 1 year warranty included in the contract. No partial bidding will be allowed.
6. The IFB is planned to be issued in September 2017, with an anticipated Bid Closing Date in December 2017 and Contract Award is anticipated in March 2018.
7. Bidders will be required to declare a bid validity of twelve (12) months from closing date for receipt of bids, supported by a bid guarantee of 150,000 Euros (one hundred fifty thousand Euros). If the selection and award procedure exceed the bid closing date by more than twelve (12) months, firms may be requested to voluntarily extend the validity of their bids and the bid guarantee accordingly. Bidders may decline to do so, withdraw their bid and excuse themselves from the bidding process without penalty.
8. The National Authorities are advised that the IFB package will be classified as NATO UNCLASSIFIED.
9. The successful bidder may be required to handle and store classified information up to the level of "NATO RESTRICTED". In addition, execution of the proposed contract may require unescorted access and work of contractor personnel at NATO Class II security areas, and in accordance with C-M(2002)49, NATO Security Policy, personnel of the winning bidder will be required to hold individual security clearances of "NATO SECRET". Only firms maintaining such cleared facilities and the appropriate personnel clearances will be able to perform the resulting contract.



## ANNEX A – SUMMARY OF REQUIREMENTS – IFB-CO-14179-GIS

### PROCUREMENT OF SUPPLIES AND SERVICES TO IMPLEMENT THE PROJECT “IFB-CO-14179-GIS “Upgrade Geographic Information Services Increment 3 – CP9C0150”

#### A. Background

The existing GIS was implemented through 2 increments as project 2001/5IS03028 - Interim Geographic Information System (IGIS) and project 2001/5IS03029 – Core Geographic Information Services in CP 5A0050/9B0020.

The Interim Geographic Information System (IGIS) was implemented between 2002 and 2004 based on the Commercial-Off-The-Shelf (COTS) software package Esri ArcGIS Desktop as a standalone Cartographic Workshop for the Geo sections of the NCS. This was referenced as NATO Core GIS Increment 1.

The NATO Core GIS project (referenced as Increment 2) was authorised in 2003, contracted in 2007 and delivered in 2012 as a capability also based on the Esri ArcGIS Suite (desktop and server) to provide timely and current geospatial information and services to functional services via the Bi-SC AIS network capabilities and web services. NATO Core GIS Incr. 2 in its original scope failed repeatedly system acceptance and consequently the contract was partly terminated with a down-sized scope.

The intended scope of Increment 3 is to address deficiencies and new requirements; upgrade the software baseline provided under Increment 2; ensure common functional capability across all Core GIS sites; and make Core GIS compatible with DCIS.

#### B. Scope

The NCI Agency foresees the GIS capability upgraded by Increment 3 to comprise of the following components:

1. Cartographic Workshop: the expert system for extensive non-standard analysis and for data preparation. The Cartographic workshop is required to administrate the Geospatial Web Services and to create new services.
2. Server Software: the server side capability that provides the services through standard web-technology interfaces.
3. Client Components: the components forming the user interface to the services that could either run in a web browser environment or standalone apps. The client components need to be extensible and embeddable into FAS clients.
4. Portal: a service provided by a user-friendly web interface that enables users to discover geospatial information and services. Registered users can create interactive online maps enriched with data from different sources even from local data holdings like Excel workbooks with coordinates. These new maps can then be shared with other users.

The NATO CoreGIS Incr. 3 baseline will also establish a harmonized usage/licencing framework for all components following the NATO Enterprise Approach.

### **C. Functional Requirements**

1. The functional scope of Core GIS Increment 3 is to address deficiencies and new requirements as well as upgrade the software baseline provided under Increment 2. In more detail this mainly includes:
  - a. Upgrade the COTS SW currently used in the Core GIS Incr. 2 baseline to the 'latest' version
  - b. Enhancements of the functionality used by the geospatial staff in NATO to:
    - i. More efficiently manage and distribute Geospatial Information (GI).
    - ii. To handle new GI-formats e.g. maritime data, LIDAR data and NATO Vector Graphics (NVG).
  - c. Provisioning of new/additional Geospatial Services to support other COIs and FSs/FASs:
    - i. A service discovery service.
    - ii. Geo-Processing Services e.g. routing service.
    - iii. Geospatial data synchronization service supporting e.g. used to keep geospatial-data in sync across the ITM data centres and enhanced nodes.
  - d. Enhancements of the C4ISR Visualisation Component as per the re-usable software component strategy adopted by the Bi-SC AIS Programme. The enhanced and augmented Visualisation Component implementation will be managed by Bi-SC AIS Programme supported by NCA geospatial SME while Core GIS Incr. 3 Contractor provides the actual resources for development and testing.

### **2. Intended Use**

- a. NATO Core GIS supports the complete geospatial information lifecycle. It is used by two main communities: specialised geospatial sections and the broad community of functional services users. The geospatial sections belong to J2 and provide HQ-wide geospatial support. Their task is to collect, import, manage and disseminate digital geospatial information and printed map products. The functional services users discover, exploit, process, and analyse this data.
- b. This capability is used within the static portion of the NATO Command Structure (NCS) and selected elements of the NATO Force Structure (NFS) over the NATO General Communications System (NGCS), by the NATO Response Force (NRF) and other NATO expeditionary bodies over the NATO Deployable CIS (DCIS), and should be useable by our coalition partners over the Future Mission Network (FMN).

**c. Geospatial Sections:**

- i. The geospatial sections within the strategic and operational headquarters are the users of the cartographic workshop which consists of the heavy components of GIS framework. Their role is to maintain the Designated and Supplemental GIS Information (DGI/SGI) datasets for NATO.
- ii. The main tasks associated with this function are the data formats conversions (usually from national raw data), data compression, metadata management, data management, image exploitation and creation of online and offline geospatial products (paper maps, geo-PDF, and web layers). High performance plotters and scanners complement this capability.
- iii. This data must be suitable for advanced military analysis, and capable of providing advanced decision-supporting products such as terrain analysis, routing, line of sight analysis, identification of potential helicopter landing sites, or special maritime charts.
- iv. Geospatial sections use a cluster of synchronised servers disseminating a common GIS picture and spatial products across the staff, which can be in turn be consumed and enriched by other functional area users, NATO and national Functional Services.

**d. Functional Area Users:**

- i. The data provided by the geospatial sections needs to be easily discoverable in order to be consumed and augmented by functional area users and functional services across the headquarters.
- ii. The staff will use the geospatial products throughout the planning phases, and as the base of briefing for the leadership. Both digital and printed products are necessary with a recurrent need for the creation of ad-hoc products.
- iii. Common geospatial components need to be re-usable in light FS clients and need to be able to display the geospatial information in conjunction with FAS-specific spatial assets. These FS need to be not able to request advanced processing results from NATO Core GIS and make use of layers and of a Gazetteer service provided by NATO Core GIS. Examples of light FS-clients are SharePoint web-parts, NCOP, or Intel FS.
- iv. The heavy FS clients, requesting geospatial information conveyed through web services or in bulk geospatial data files can carry out their own spatial analysis and mesh up geospatial information with other information. Examples of heavy FS-clients are AC2IS, Triton, and LC2IS.

### 3. Interoperability

- a. The capability delivered through Increment 3 has to abide by general, cross-functional and functional-specific interoperability requirements.
- b. From a general standpoint, NATO Core GIS must comply with the infrastructure in place provided by the Bi-SC AIS and FMN concepts, in particular in terms of operating systems, virtualisation and cloud computing frameworks, hardware compatibility, and the use of standard network protocols (REST, SOAP) and security settings.
- c. From a cross-functional point of view, NATO Core GIS must implement the NATO Interoperability Standards and Profiles (NISP) in order to allow automation with other functional area systems on the network as well as being FMN compliant.
- d. NATO Core GIS must finally comply with most recent relevant geospatial-specific protocols and standards to be interoperable with national systems and able to consume their data:
  - i. OGC (WMS, WMTS, WFS, WCS, WPS)
  - ii. STANAG 7170: Additional Military Layers AML.
  - iii. STANAG 2586: NATO Geospatial Metadata Profile.
  - iv. Lidar sensors or Multibeam Bathymetry Echo Sounders (MBES).
  - v. NATO Vector Graphics (NVG)
  - vi. FMN compliance

### 4. Modes of Operation

- a. NATO Core GIS Increment 3 will be required in peacetime, in crisis and for exercises throughout the static and deployed environments.
- b. It will be deployed on a variety of different networks depending on the organisational element it supports for example:
  - i. at operational static commands on the NATO Secret Network, Exercise Network and Protected Business Network (PBN) , all under the ITM initiative.
  - ii. at deployed NATO or coalition headquarters on the Mission Secret Network.
  - iii. at support sites on the NATO Unclassified or NATO Restricted Network, and
  - iv. on one additional COI specific network
- c. Geospatial sections at the strategic and operational headquarters will be delivered a complete capability for the computationally and graphically demanding large geospatial data and handling of huge datasets. The hardware consists of storage, high-performing workstations for computationally intensive data processing, plotters up to A0, scanners, and DVD burners.





## **D. Non-Functional Requirements:**

Increment 3 as an upgrade project will focus on the improvement of the existing system in the following non-functional areas.

### **1. Security**

- a. NATO Core GIS Increment 3 must be capable of supporting different security domains (e.g. NATO and Coalition) with different requirements for cryptographic mechanisms and algorithms.
- b. All its components will go through the normal approval security benchmarks, such as Approved Fielding Product List (AFPL) and Coalition Interoperability and Assurance Validation (CIAV).
- c. NATO Core GIS will be able to implement user-level access segregation through Active Directory in order to make the geospatial data available on a need-to-know basis.

### **2. Performance**

- a. The Geo application server will be able to serve up to 200 concurrent requests for different users regardless of the consumer (client or a FS server).
- b. While creating and maintaining the NATO Core GIS Digital Geographic Data Baselines the real achievable throughput capacity between the data storage infrastructure (server) and the Cartographic Workshop (client) shall be at least 10 Mbps. The network infrastructure shall guarantee the above mentioned bandwidth for satisfactory GEO service performance.
- c. The capability should provide usage and performance metrics to support administrators to tune the system for optimal response time.

### **3. Scalability and Sizing**

- a. For the capability implemented on the static network, scalability will mostly be achieved by leveraging the infrastructure of CP 150, specifically the cloud computing and content distribution network provided by the IT Modernisation and in combination with a preferred Enterprise Licensing Agreement. This will ensure that the framework can grow on demand.