Notification of Intent to Invite International Competitive Bids

Provide NRF Transmission Components – DCIS for Small NRF HQs (IFB 2)

IFB-CO-14760-FIREFLY

€ 47,863,801

(estimated value)

The Project “Provide NRF Transmission Components – Deployable Communication and Information Systems (DCIS) for Small NRF HQs”, also known as the “FIREFLY” project, allows data and voice communications between deployed forces in support of the NATO Response Force (NRF) and static forces.

The formal IFB is planned to be issued in Q3 2018 with an anticipated Contract Award in Q2 2019.

The NCI Agency Point of Contact is Mr Joseph Vitale, Senior Contracting Officer

E-mail: Joseph.Vitale@ncia.nato.int
To: Distribution List

Subject: Notification of Intent to Invite Bids for International Competitive Bidding

Provide NRF Transmission Components – DCIS for Small NRF HQs (IFB 2)

**IFB-CO-14760-FIREFLY**

References:
- B. AC/4-DS(2017)0029
- C. AC/4(PP)D/26972-ADD1

1. In accordance with References A through D notice is hereby given of the intent of the NATO Communications and Information Agency (NCI Agency), acting as Host Nation responsible of implementing the subject project, to issue an Invitation for Bid (IFB) for the provision of the NRF Transmission Components. The scope of this Bid will encompass the procurement, design and testing of the DCIS Transmission Systems (Project serial: 2006/0CM03054).

2. The reference for the Invitation of Bid is **IFB-CO-14760-FIREFLY**, and all correspondence concerning this IFB shall reference this number.

3. The estimated investment cost for the services and deliverables included within scope of the intended Contract is € 47,863,801.

4. The project was authorised at 26, to use the standard International Competitive Bidding Procedure, lowest priced technically compliant Bid. The Contract resulting from the IFB will be a single Firm Fixed Price (FFP) Contract with an expected duration of approximately 32 months. The NCI Agency intends to place a single Contract with one Contractor. No partial bidding shall be allowed.

5. The second stage authorisation by the Investment Committee is expected end of Q2 2018. The formal IFB is planned to be issued in Q3 2018 with an anticipated Contract Award in Q2 2019. These dates are subject to confirmation.

6. Bidders will be required to declare a Bid validity of twelve (12) months from the closing date of receipt of bids, supported by a Bid Guarantee of Euro € 300,000 (three hundred thousand Euro). Should the selection and award procedure extend beyond 12 months after the Bid Closing Date, firms will be requested to voluntarily extend the validity of their Bids and Bid Guarantee accordingly. Bidders may decline to do so; however, they shall withdraw their Bid and excuse themselves from the bidding process without penalty.

7. National Authorities are advised that the IFB Package will be NATO UNCLASSIFIED. Execution of the proposed Contract will require unescorted access and work of
Contractor personnel at NATO Class-II security areas. In accordance with Reference D, personnel of the winning bidder will be required to hold individual “NATO SECRET” security clearances. Only companies maintaining appropriate personnel clearances will be able to perform the resulting Contract. Bidders are to note that Contract Award will not be delayed in order to allow Contractor personnel to obtain missing clearances. The Declaration of Eligibility (DOE) shall state that Companies possess a facilities clearance up to NATO RESTRICTED.

8. Prospective Bidders will be invited to participate in a Bidders’ Conference. The exact dates and agenda for these events will be communicated in the IFB.

9. Pursuant to Paragraph 6 of Reference A, National Representatives are kindly requested to provide the NCI Agency with a DOE, no later than 13 July 2018 of qualified and certified firms, which are interested in bidding for this project. In addition to the certifications required under this NOI, the DOE shall include the following information for each of the nominated firms: name of the firm, telephone number, fax number, e-mail address, and point of contact. The DOE should be sent to the following address:

NATO Communications and Information Agency  
NATO, Boulevard Leopold III, 1110 Brussels  
Attention: Mr Joseph Vitale  
Tel: +32 (2) 707 8321  
Fax: +32 (2) 707 8770  
E-mail: Joseph.Vitale@ncia.nato.int

10. It is emphasized that requests for participation in this competition received directly from individual firms cannot be considered.

11. The NCI Agency point of contact for all information concerning this IFB is Mr Joseph Vitale (Senior Contracting Officer), email: Joseph.Vitale@ncia.nato.int. Your assistance in this procurement is greatly appreciated.

ON BEHALF OF DIRECTOR OF ACQUISITION:

[Signature]

Joseph L. Vitale
Senior Contracting Officer

Attachments:

Annex A: Work Summary Description of Project Scope
Annex A

PROVIDE NRF TRANSMISSION COMPONENTS – DCIS FOR SMALL NRF HQS (IFB 2)
Project 2006 / 0CM03054
“IFB 2 PROJECT” (SHORT TITLE: Firefly)

Work Summary Description of Project Scope

1. Background

The Project “Provide NRF Transmission Components – DCIS for Small NRF HQs (IFB 2)” will deliver the second batch of DCIS Points of Presence (PoP) in support of the Small HQ of the NATO Response Force (NRF). This project, hereafter referred to as “Project Firefly”, will complement and interoperate with the current generation of DCIS PoPs (Dragonfly), in support of data and voice communications between deployed elements of the NRF and the static HQs of the NATO Command Structure (NCS).

2. Operational Objective

The Firefly shall provide the NRF with a secure, modular, scalable, sustainable and interoperable means of communications, supporting the information exchange with other deployed NCS HQs and with deployed elements of the NATO Force Structure (NFS) and other mission partners.

In that capacity, the Firefly shall continue supporting and further enhance the participation of the NCS as an Affiliate within the Federated Mission Networking (FMN) framework. For that purpose, the Firefly will offer FMN connectivity to deployed elements of the NFS and to other FMN affiliates, in conjunction with existing DCIS assets (Dragonfly, CGS and LINC-E).

3. Contract Scope of Work Description

The scope of this IFB includes the procurement, design, integration and the testing and validation of Firefly nodes with existing DCIS assets and with the wider DCIS Enterprise, including the Mission Anchor Function (MAF).

The Firefly project shall deliver Core Nodes, Remote Nodes and Small Team Nodes, including all supporting non-CIS elements.
Each Firefly DCIS PoP (or DPOP) consists of one Core node with up to four Remote nodes attached. Core Nodes host all the Information Services (including cross-domain gateway services) and provide wide area network connectivity, both within theatre and for reachback into the Mission Anchor Function (MAF). They act as communications hubs for the Remote Nodes.

Each Core Node will provide local access for up to 15 users of the NCS (i.e. NATO Signal Battalion users in charge of deploying and operating the DCIS PoP) and two FMN Network Interconnection Points (NIP) for any collocated mission partners units.

Remote Nodes will have dual purpose:

1) Providing hosted users of the NFS with direct access to NATO DCIS services hosted in the Core Nodes;

2) Acting as nodes of the federated Mission Network (MN), providing connectivity to mission partners through Network Interconnection Points (NIP).

For the purposes above, Remote Nodes will deploy in the vicinity of the Core Node locations, at line of sight (LOS) distance, collocated with the supported NFS HQ or mission partner PoP. Remote Nodes will reach to their parent Core Node over High Capacity LOS radio links (HCLOS) or fiber, or will directly connect to the MAF if isolated, over SATCOM.

Core Node infrastructure and users will be hosted in a BC tent. System administrators in charge of the configuration and operation of the DCIS PoP, as well as helpdesk operators, will be hosted in a separate tent. Remote Nodes will not necessarily be hosted in an environmentally and power conditioned environment (e.g. they may be placed outside national tents or shelters). For that reason they will require their own environmental and power conditioning capability.

Small Team Nodes will be roaming, connecting to the MAF in the static domain, to a Core node, or to a Dragonfly in the deployed domain, in support of up to four Operations Liaison and Reconnaissance Teams (OLRT) per deployment. Small Team Nodes will rely on commercial SATCOM and/or military SATCOM connectivity, for operating on-the-move (OTM), at the quick halt, or from static locations. The corresponding OTM and manpack terminals are in the scope of the procurement.
Core Nodes will be implemented as the combination of the following systems (or CIS modules):

1) Core Network Modules (CNM), with WAN connectivity provided over terrestrial L1 or L2 lines (TDM or Ethernet) or Purchaser-furnished SATCOM bearers, and metro-area connectivity provided over fiber or HCLOS radio links;

2) Information Services Modules (ISM);

3) User Access Modules (UAM);

Each Core Node will have three instances of each of the CIS modules above, as many as security classifications are to be supported (NU, NS and MS).

Core Nodes will include a HCLOS radio system, for local/metro area connectivity to their Remote Nodes.

Core Nodes will also include a Cross-domain Gateway Module (CGM), supporting the information exchange between ISMs in the NS and MS domains (Information Exchange Gateway, IEG-C).

Remote Nodes will be implemented as the combination of the following systems (CIS modules):

1) Remote Network Module (RNM), with WAN connectivity provided over terrestrial fiber links, HCLOS Radio or Purchaser-furnished SATCOM bearers.

2) User Access Modules (UAM)

Remote Nodes will include a HCLOS radio system, for local/metro area connectivity to their parent Core Node.

Remote Nodes will be delivered in two flavors: Type-A, featuring both user access and NIP (for hosted users and FMN connectivity), and Type-B, featuring only NIP (for FMN connectivity only).

Small Team Nodes will be implemented as a combination of:

1) Small Team Kit (STK), operating at NU and xS (NS or MS) classifications;

2) SATCOM Manpack system operating in the military X/Ka bands (manpack terminal and manpack hub);

3) SATCOM on-the-move (OTM) terminal operating in the commercial L-band.
In terms of Information Services, the scope of the prospective Contract encompasses the delivery, integration and validation of applications, operating systems and licenses (hosted in the ISM) for the provision of:

1) Infrastructure Services: Authentication services (Active Directory), Domain Name Services (DNS), Windows Internet Name Services (WINS), Dynamic Host Configuration Protocol (DHCP), Time services, Certificate services, File and Printer services, Back-up and Restore services;

2) Core Services: Informal Messaging, Database, Document Collaboration and Web Services;

Furthermore, the project will deliver and integrate applications and licenses in support of:

1) Service Management and Control services, integrated with the current network and service management and control infrastructure of the Dragonfly. These will include two Centralized Provisioning and Orchestration Platforms, or CPOP (one per Network Operations Centre). The CPOP is intended to automate the provisioning of infrastructure services and communications services across all Firefly nodes.


The implementation of the Core Network Module, Remote Network Module, User Access Module, and Small Team Kit, will adhere to a preliminary design specification based upon the NRF DCIS Target Architecture and its current instantiation in the Dragonfly, streamlined in order to reduce the deployed footprint of the Firefly, in terms of size, weight and power requirements of the corresponding transit cases.

Conversely, the implementation of the ISM and the CPOP will seek conformance with the design principles conveyed by the DCIS CUBE Architecture Definition Document and its Annexes (Version 1.0, dated 5 April 2018).

In terms of infrastructure, the following page provides two tables outlining the node types, function, purpose and quantities to be delivered under this project, both for CIS and Non-CIS elements. Footnotes to the first table identify the functional correspondence with existing Dragonfly components. The table contents can be visualized in the two figures of the pages thereafter.
### Table 1  Project scope – CIS Infrastructure

<table>
<thead>
<tr>
<th>Node Type</th>
<th>Node Function</th>
<th>Purpose</th>
<th>Quantity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Core Nodes¹ (NU, NS, MS)</td>
<td>Communications, Information Services, Cross-domain information exchange, Service Management and Control, User Access and NIP</td>
<td>Operation</td>
<td>6</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Training</td>
<td>1</td>
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<tr>
<td></td>
<td></td>
<td>Reference</td>
<td>1</td>
</tr>
<tr>
<td>Remote Nodes², Type A (NU, NS, MS)</td>
<td>Communications, User Access and NIP</td>
<td>Operation</td>
<td>12</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Training</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Reference</td>
<td>1</td>
</tr>
<tr>
<td>Remote Nodes³, Type B (NU, NS/MS)</td>
<td>Communications, NIP only</td>
<td>Operation</td>
<td>12</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Training</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Reference</td>
<td>1</td>
</tr>
<tr>
<td>Centralized Provisioning and Orchestration Platform (NU, NS/MS)</td>
<td>Service Management and Control, automated system provisioning</td>
<td>Operation</td>
<td>2</td>
</tr>
<tr>
<td>Small Team Nodes (NU, NS/MS)</td>
<td>Communications, User Access only (including user workstations and phones)</td>
<td>Operation</td>
<td>8</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Training</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Reference</td>
<td>1</td>
</tr>
<tr>
<td>Manpack Hubs</td>
<td>SATCOM Link termination only (attached to a TSGT at IF level)</td>
<td>Operation</td>
<td>2</td>
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</tr>
<tr>
<td></td>
<td></td>
<td>Reference</td>
<td>1</td>
</tr>
</tbody>
</table>

¹ Formerly including: μCOM, Core, Voice Core, μISM, IEG-C, BoB (source: NRF DCIS Target Architecture)
² Formerly including: WiCR, BoB, INM (source: NRF DCIS Target Architecture)
³ Formerly including: INM only (source: NRF DCIS Target Architecture)
Project scope – Non-CIS Infrastructure

<table>
<thead>
<tr>
<th>Node Type</th>
<th>Non-CIS element</th>
<th>Purpose</th>
<th>Quantity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Core Nodes</td>
<td>BC Protected Tent, Power Distribution, HVAC &amp; UPS</td>
<td>Operation</td>
<td>6</td>
</tr>
<tr>
<td></td>
<td>Tent for Help Desk, HVAC and UPS</td>
<td>Operation</td>
<td>6</td>
</tr>
<tr>
<td>Remote Nodes</td>
<td>Portable ECU and UPS</td>
<td>Operation</td>
<td>28</td>
</tr>
</tbody>
</table>
Figure 1 Contract Scope Overview (Firefly nodes)
Figure 2 Physical breakdown of Firefly nodes