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Notification of Intent to Invite Bids

Tactical Deployable Communications and Information Systems (TDCIS) for the Portuguese Army

RFQ-CO-115363-PRT-TDCIS

Estimated Value: EUR 35,300,000.00

The scope of this upcoming opportunity is for the provision of Tactical Deployable Communications and Information Systems (TDCIS) for the Portuguese Army.

The TDCIS shall provide the Portuguese (PRT) Army with a secure, modular, sustainable and interoperable means of communications and information exchange with other deployed PRT Army units connected to the Portuguese National Defence Network (NDN), or with deployed elements of mission partners connected to the NATO Federated Mission Network (FMN).

The NCI Agency anticipates issuing the formal Request for Quotation (RFQ) using Basic Ordering Agreement (BOA) Plus procedures in the first quarter **Q1 2021**, with an anticipated bid closing date in the second quarter **Q2 2021**, and an expected contract award by the third quarter **Q3 2021**.

NCI Agency Point of Contact

Mr. Sven Schumacher, Senior Contracting Officer E-mail: <u>RFQ-CO-115363-PRT-TDCIS@ncia.nato.int</u>



NATO Communications and Information Agency

Agence OTAN d'information et de communication

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То:	Distribution List
Subject:	Notification of Intent to Invite Bids
	Tactical Deployable Communications and Information Systems (TDCIS) Modules for the Portuguese Army
	RFQ-CO-115363-PRT-TDCIS
References:	A. AC/4-D/2261 (1996 Edition) B. AC/4-D(2019)0004(INV), dated 4 July 2019 C. PRT/NCI Agency MOU, dated 9 April 2015 D. PRT/NCI Agency Technical Arrangement 2017:02, dated 7 Dec 2017

- 1. The NCI Agency, as the Host Nation, hereby gives notice of its intent to issue a Request for Quotation (RFQ) for the provision of Tactical Deployable Communications and Information Systems (TDCIS) Modules for the Portuguese Army.
- **2.** Attached to this letter at Annex A is a summary of the requirements. These requirements are being refined and will be included in further detail as part of the Request for Quotation.
- **3.** The reference for the Request for Quotation will be **RFQ-CO-115363-PRT-TDCIS**, and all correspondence concerning this Notification of Intent and the RFQ should reference this number.
- **4.** For the purpose of planning, the estimated cost for the services and deliverables included within the scope of the intended contract is approximately EUR 35,300,000.00.
- **5.** The NCI Agency will use the Basic Ordering Agreement (BOA) Plus procedure, lowest price technically compliant evaluation. The successful bid pursuant to the RFQ will be that bid which is the lowest price and technically compliant in accordance with the evaluation criteria prescribed in the RFQ.
- **6.** It is planned to award a single firm-fixed price contract for the entire scope of work. No partial bidding will be accepted.
- **7.** Attached to this letter, at Annex B, is a list of potential bidders that may be able to provide the services and equipment required for this project. This list was compiled from the companies that have an active BOA with NCI Agency.
- 8. The BOA Plus procedure allows National Responsible Authorities to nominate eligible bidders, in addition to the companies identified at Annex B. Any such nomination for companies that do not have an active BOA should be received from the National Responsible Authorities via their Delegation/ Mission to NATO, who will provide the requisite Declaration of Eligibility (DoE). Upon receipt of the DoE, the NCI Agency will add the nominated company to the list of potential bidders.
- 9. National Responsible Authorities are therefore kindly requested to provide Declarations of Eligibility (DoE) to the NCI Agency, not later than <u>05 February 2021, 23:59 (CET)</u>, of qualified and certified companies, which may be interested in receiving a Request for Quotation for this project. The Declaration of Eligibility (DoE) should include the following information for each of the nominated firms:
 - Company Name and Address
 - Point of Contact, Telephone number and E-mail address.



This information is critical to enable prompt and accurate communication with prospective bidders.

10. Declarations of Eligibility (DoE) should be sent electronically to the following address:

NATO Communications and Information Agency Attention: Mr. Sven Schumacher, Senior Contracting Officer e-mail: RFQ-CO-115363-PRT-TDCIS@ncia.nato.int

- **11.** Please note that requests for participation in this competition received directly from individual companies cannot be considered, unless they hold a valid Basic Ordering Agreement (BOA) with the NCI Agency.
- **12.** The NCI Agency plans to issue the formal RFQ in the first quarter Q1 2021, with an anticipated bid closing date in the second quarter Q2 2021, and an expected contract award by the third quarter Q3 2021.
- 13. The National Authorities are advised that the RFQ package will be NATO UNCLASSIFIED.
- 14. The execution of the proposed contract may require unescorted access and work of contractor personnel at NATO Class I and II security areas, and in accordance with C- M(2002)49, NATO Security Policy, personnel of the successful bidder will be required to hold individual security clearances of "NATO SECRET". Only companies maintaining such appropriate personnel clearances will be able to perform the resulting contract.
- **15.** Please note that the RFQ will contain provisions requiring bidders to clearly demonstrate in their bid their technical capability and years of relevant experience to ensure bids are received from qualified companies.
- 16. The NCI Agency point of contact for all information concerning this NOI is Mr. Sven Schumacher, Senior Contracting Officer at the primary e-mail address: <u>RFQ-CO-115363-</u> <u>PRT-DCIS@ncia.nato.int</u>. In case of technical issues with the RFQ e-mail address please inform the undersigned at <u>sven.schumacher@ncia.nato.int</u>.
- **17.** Your assistance in this procurement is greatly appreciated.

FOR THE DIRECTOR OF ACQUISITION:

Sven Schumacher Senior Contracting Officer

Attachments: Annex A – Summary of the Requirements Annex B – Initial List of Bidders





Annex A – Summary of the Requirements

RFQ-CO-115363-PRT-TDCIS

Tactical Deployable Communications and Information Systems (TDCIS) for the Portuguese Army

Background

1. Prior to the inception of this project, the Portuguese Ministry of Defence (PRT MOD) designed and developed Sistema de Informação e Comunicações - Tático (SIC-T) over a period of 6 years, to support Portuguese Army deployments up to the Brigade level. Under a Memorandum of Understanding (MOU) between the PRT MOD and the NATO Communications and Information Agency (NCI Agency), the NCI Agency is to develop and deliver a new Tactical Deployable Communications and Information System (TDCIS) to supplement the existing PRT MOD SIC-T Communication and Information System (CIS).

2. Following the agreed MOU, a series of PRT MOD business requirements has been produced, detailing a wide range of services and capabilities to be developed and implemented. This work is to be carried out by a contractor selected by and accountable to the NCI Agency. The requirements are grouped into a series of work packages to be delivered across the project's lifecycle. There is a costed option for PRT MOD consideration, regarding the provision of a TDCIS Through Life Support contract beyond project closure.

3. While the contractor selected to perform this project's work will report to the NCI Agency, PRT MOD stakeholders will follow and sometimes be present during the contract execution. Their involvement will be key, amongst others, to the effective integration of Purchaser Furnished Equipment (PFE) supplied by the PRT MOD to the NCI Agency, who will in turn relay this PFE to the selected contractor.

Operational Objective

4. The TDCIS shall provide the PRT Army with a secure, modular, sustainable and interoperable means of communications and information exchange with other deployed PRT Army units connected to the Portuguese National Defence Network (NDN), or with deployed elements of mission partners connected to the NATO Federated Mission Network (FMN).

5. In that capacity, the TDCIS shall continue supporting and further enhance the participation of the PRT Army as an Affiliate within the Federated Mission Networking (FMN) framework.

System Overview

6. TDCIS is to be capable of supporting deployments of one entire Brigade at once or multiple sub-elements concurrently in either a Portuguese or international (NATO and non-NATO) operational role. In these roles, deployed Portuguese personnel are to be capable of reaching back into the Portuguese NDN. While deployed mobile users are to have limited service provision, the nodes supporting deployed Brigade, Battalion and Company headquarters are to provide connected users with all necessary information services.



7. TDCIS is composed of different node types to deliver IT services to users over different domains :

- a. Access Node (AN) for Brigade level support;
- b. Battalion Communication Centre (BCC) for Battalion level support;
- c. Company Communication Centre (CCC) for Company level support.

8. TDCIS also contains nodes used to build the tactical and reach back Wide Area Network (WAN):

- a. Transit Node (TN) that enables the communication between nodes;
- b. Radio Access Point (RAP) that enables communication with mobile users;
- c. Rear Link (RL) that enables reach-back to the NDN.

9. Each of these nodes are composed of CIS and non-CIS equipment installed in shelters and on trailers.

10. Additionally a pool of stand-alone trailers, the "GAR-T HCLOS Trailer", is available to extend the reach of the tactical links and/or extend node transmission capacity.

11. Figure 1 – TDCIS Overview below illustrates those different nodes and the relationship between these.



Figure 1 – TDCIS Overview



12. In supporting deployed units' interoperability, a varying combination of network meshes is to be formed. These use different bearer technologies such as: wired (Copper and Fiber), SATCOM (Military and Commercial), Radio Links (HF, VHF, UHF), Deployable Line Of Sight (DLOS) and International Mobile Telecommunication (IMT) networks.

13. TDCIS is to be capable of acting as a NDN extension or as a Federate Mission Element (in NATO and non-NATO operations). These scenarios are to be on a mutually exclusive basis.

14. Table 1 – End Users Supported per Node, per Domain illustrates the quantity of end users and system administrators to be supported by each domain, within each TDCIS node type.

TDCIS Node Security Domain	AN	TN	BCC	ССС	RAP	RL
Unclassified (U)	36	2	18	6	2	2
Restricted (R)	36	-	18	6	2	-
Secret (S)	24	-	12	-	-	-
Total	96	2	48	12	4	2

 Table 1 – End Users Supported per Node, per Domain

Description of the Contract Scope

15. The scope of the prospective contract includes the procurement, design, integration and the testing and validation of TDCIS nodes with existing PRT MOD and NATO Deployed CIS services.

16. All of the TDCIS nodes are to be delivered across a series of 3 batches, with delivery of the first batch to be completed by mid-December 2023. Delivery of the remaining batches is to be completed by the end of 2024. It is expected that the prospective contract will provide for the procurement of a minimum of 30 nodes, and will include contractual options for the procurement of up to 15 additional nodes. The final quantity of nodes to be delivered will be determined by the pricing within the selected contractor's submission.

17. Table 2 – Project Scope – CIS Infrastructure below provides an overview of the CIS Infrastructure scope of the project. Please note that the table includes both the initial, as well as the contractual option quantity of nodes.

Node Type	Node Function	Node	Shelter	Trailer
AN	Communications, Information Services, Cross- domain information exchange, Service Management and Control, User Access and NIP	3	6	

Table 2 - Project Scope – CIS Infrastructure

NATO UNCLASSIFIED



Node Type	Node Function	Node	Shelter	Trailer
BCC	Communications, Information Services, Cross- domain information exchange, Service Management and Control, User Access and NIP	5	10	
ССС	Communications, Information Services, Cross- domain information exchange, Service Management and Control, User Access and NIP	13	13	
RL	Rear Link termination	3	4	3
TN	Communications & NIP	7	7	
RAP	Communications, User Access and NIP	8	8	
GAR-T HCLOS Trailer	HCLOS relay function. Formed of a trailer unit	4		4
Spare Node	Nodes limited to the Shelter and its Non-CIS content	2	2	

18. The first of each node type within Table 2 is to be employed in training PRT MOD staff in the use and administration of TDCIS, before being dispatched for operational use.

19. The project includes also a NS Kit composed of a set of transit cases integrated CIS equipment used to reinforce any of the TDCIS Nodes.

Elements that are out of Contract Scope

20. This section describes TDCIS elements which will be provided as Purchaser Furnished Equipment (PFE). Some of these are also captured as white background discontinuous border boxes in Figure 2 – TDCIS Generic Architecture below.

21. Vehicles to transport shelters and tow trailers are not to be delivered by this project.

22. While system administrator devices (workstations, phones, etc.) are in scope of the project, the provision of those being used by end users to connect to TDCIS services are not to be provided by this project.

23. Dedicated reference or training platforms are not to be delivered by this project.

24. The following devices are PFE:

- a. Accredited encryption devices for classified networks;
- b. Combat Net Radio (CNR) devices for mobile unit integration;
- c. IP HF Radio for RL;
- d. Iridium terminal; and
- e. Some software

25. However, although all the items listed in this section will be provided to the selected Contractor by the Purchaser, the Contractor is to include their integration, testing and validation within the nodes as activities to be performed under this project.

Introduction to System Architecture

26. Each Node version will implement a subset of modules and subsystems depicted on the generic architecture in Figure 2 – TDCIS Generic Architecture below.





Figure 2 – TDCIS Generic Architecture

27. The node design will include scalability in order to introduce future technologies retrospectively such as additional bearer types or automation and orchestration.

28. The node design and implementation will follow national and NATO policies, guidance and regulation to implement the modules. For example, those related to security will drive choices of technologies, hardware distinction and separation.

29. The TDCIS Architecture is composed of multiple building blocks:

- a. Bearers grouped as follow:
 - i. Wide Area Network (WAN) used for reach back to Portugal over SATCOM (Military and Commercial), IMT networks and HF.



ii. Metro Area Network (MAN) used to connect mission nodes together over wired connection (Copper and Fiber Ethernet and SHDSL), Mini-LOS, High Capacity LOS (HCLOS) and Broadband Radio.

b. Core Network Modules (CNM) to provide bearer integration for transmission (Protected Core Access – PCA) and to provide network connectivity to Color Clouds linked to the different security domains (Color Cloud Access – CCA). CCA also contains Network Interconnection Point (NIP) – as part of the Interconnection to Nation Module (INM) – to interconnect with mission partners.

c. CNM also provides Border Protection System (BPS) and Multimedia Access (MMA). This later will be used on the unclassified domain to interface with different Voice technologies.

d. Information Services Modules (ISM) providing High Density Switching (HDS), Compute And Storage (CAS) and Disaster Recovery System (DRS).

e. User Access Modules (UAM) providing the Local Access Network (LAN) to connect end users.

f. Cross domain connectivity is achieved using data diodes.

g. A NATO Secret (NS) Kit is a transit case based solution to enable NS connectivity to a limited end user community.

30. Roaming PRT ARMY mobile users will access TDCIS services by using PFE CNR device.

31. 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:

a. 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;

b. Core Services: Informal Messaging, Database, Document Collaboration and Web Services.

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

a. Service Management and Control services,

b. Security Services: Boundary Protection, Access Control for servers and workstations, Auditing, Network and Host Intrusion Protection, and Patch management.

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

34. As illustrated in Table 2 – Project Scope – CIS Infrastructure, each Node will be housed in one or two shelters and might contain a trailer.



35. All Shelters will be built on the same common base and architecture as depicted in Figure 3 – Shelter Breakdown below.



Figure 3 – Shelter Breakdown

a. The "GAR-T HCLOS" version will house HCLOS radios to extend or enable a node capacity;



b. The "HF Rear Link" version will house a PFE IP HF radio and its ancillaries (inc antenna).

37. All Trailers will be built on the same common base and architecture as depicted in Figure 4 – Trailer Breakdown below.



Figure 4 – Trailer Breakdown