Office of Acquisition

Boulevard Léopold III
B-1110 Brussels, Belgium

NCIA/ACQ/2022/07365

09 December2022

To: See Distribution List

Subject: **Provision of Tactical Deployable Communications and Information Systems (TDCIS) for the Portuguese Army**
Request for Quotation RFQ-CO-115363-PRT-TDCIS, Amendment 8

Reference:

A. AC/4-D(2019)0004 (INV)
B. NCIA/ACQ/2021/06476 Notification of Intent dated 18 January 2021
C. NCIA/ACQ/2021/06775 Notification of Intent AMD 1 dated 9 April 2021
D. NCIA/ACQ/2021/68940 RFQ-CO-115363-PRT-TDCIS, dated 2 Jun 2021
E. NCIA/ACQ/2021/06983 RFQ-CO-115363-PRT-TDCIS, Amendment 1 dated 15 June 2021
F. NCIA/ACQ/2021/07015 RFQ-CO-115363-PRT-TDCIS, Amendment 2 dated 25 June 2021
G. NCIA/ACQ/2021/07065 RFQ-CO-115363-PRT-TDCIS, Amendment 3 dated 14 July 2021
H. NCIA/ACQ/2021/07140 RFQ-CO-115363-PRT-TDCIS, Amendment 4 dated 6 August 2021
I. NCIA/ACQ/2021/07259 RFQ-CO-115363-PRT-TDCIS, Amendment 5 dated 17 September 2021
J. NCIA/ACQ/2021/07281 RFQ-CO-115363-PRT-TDCIS, Amendment 6 dated 28 September 2021
K. NCIA/ACQ/2022/07059 Notification of Intent AMD 2 dated 6 September 2022
L. M. NCIA/ACQ/2021/07195 RFQ-CO-115363-PRT-TDCIS, Amendment 7 dated 25 October 2022

Dear Sir/Madam,

1. At Reference D your firm was invited, in conformance with the terms of your active Basic Ordering Agreement (BOA) with the NCI Agency, or the nomination through your National Delegation, to participate in a BOA Plus competition for the for the provision of Tactical Deployable Communications and Information Systems (TDCIS) for the Portuguese Army.
2. The purpose of this Amendment 8 to RFQ-CO-115363-PRT-TDCIS is to
    a. Publish the slides presented on the Bidders Conference on the 18th November 2022 at NATO HQ Brussels
    b. Publish the lists of participants at the Bidders Conference on the 18th November 2022 at NATO HQ Brussels
    c. Publish Purchaser's answers to the Bidders Conference Clarification Requests (CRs) received for the subject RFQ. The Purchaser is providing their response at Annex A attached to this letter
    d. Issue revised RFQ Documents as follows:
        - RFQ-CO-115363-PRT-TDCIS Book I Bidding Instructions AMD8

- RFQ-CO-115363-PRT TDCIS Book II SoW AMD8
- PRT TDCIS – SRS v.2.2 – SoW Annex A

3. By virtue of this Amendment, the documents replace and supersede any previous versions issued in the context of RFQ-CO-115363-PRT TDCIS. All other RFQ documents remain unchanged in this Amendment.
4. The RFQ documents are revised as follows:

   RFQ-CO-115363-PRT-TDCIS Book I Bidding Instructions AMD8:

   a. Amending the period for submission of clarification requests from twenty eight (28) to fourteen (14) calendar days before the Bid Closing Date in section 1.5.9.
   b. Amending the period for submission of clarification requests from seven (7) to fourteen (14) calendar days before the Bid Closing Date in section 2.7.2.
   c. Removing sections 3.5.4.4 for the requirement to submit an initial draft of the Low Level Design with the bid proposal.
   d. Correction of numbering of former section 16.ff to 4.ff to restore consistency with remaining document.
   e. Removal of section 4.4.6.2.2 (former reference section 16.1.6.2.2) in relation to the evaluation of the initial draft of Low Level Design submitted with the Bid proposal.

   RFQ-CO-115363-PRT TDCIS Book II SOW AMD8:

   a. Update of IPS-105 & 108

   PRT TDCIS – SRS v.2.2 – SoW Annex A:

   a. Update of statement references (SRS-xx and [xx]) by using the PRTTDCIS-xx key format and the SRS/NOTE identification scheme. For AMD 8 and AMD 9, both references will still be used to allow Bidders to adapt from one reference scheme to the updated one. From AMD 10 (if required) onwards, only the PRTTDCIS-xx reference scheme will pertain.
   b. please see Annex A under “Status”

5. **THE CLOSING TIME FOR SUBMISSION OF QUOTATIONS IN RESPONSE TO THE RFQ REMAINS 17:00 HOURS (BRUSSELS TIME) ON Tuesday 31 January 2023.**
6. The reference for this RFQ is RFQ-CO-115363-PRT-TDCIS, and all correspondence concerning the RFQ should reference this number.
7. Prospective Offerors are advised that the NCI Agency reserves the right to cancel this RFQ at any time in its entirety and bears no liability for quotation preparation costs incurred by firms or any other collateral costs if solicitation cancellation occurs.
8. In accordance with the NATO Management of Non-Classified NATO Information policy (C-M(2002)60), this RFQ is the property of the NCI Agency and shall therefore NOT be published on the internet.

9. Your point of contact for all information concerning this RFQ is Mr. Ole Hubner, Senior Contracting Officer, who may be reached at RFQ-CO-115363-PRT-TDCIS@ncia.nato.int

On behalf of the Chief of Acquisition:

Mr. Ole Hubner
Senior Contracting Officer

Enclosures:

- Presentation Bidders Conference 18 November 2022
- List of Participants Bidders Conference 18 November 2022
- Annex A - Purchaser's answers to the Clarification Requests
- RFQ-CO-115363-PRT-TDCIS Book I Bidding Instructions AMD8
- RFQ-CO-115363-PRT TDCIS Book II SOW AMD8
- PRT TDCIS – SRS v.2.2 – SoW Annex A

NATO Communications and Information Agency
Boulevard Leopold III
1110 Brussels
Belgium
www.ncia.nato.int

NATO Communications and Information Agency

Office of Acquisition

Boulevard Léopold III
B-1110 Brussels, Belgium

NCIA/ACQ/2022/07365

Distribution List for RFQ-CO-115363-PRT-TDCIS

- **Offerors** (sent separately in electronic version)
- **NATO Delegations** (Attn: Investment Adviser):

  Albania
  Belgium
  Bulgaria
  Canada
  Croatia
  Czech Republic
  Denmark
  Estonia
  France
  Germany
  Greece
  Hungary
  Iceland
  Italy
  Latvia
  Lithuania
  Luxembourg
  Montenegro
  The Netherlands
  North Macedonia
  Norway
  Poland
  Portugal
  Republic of Türkiye
  Romania
  Slovakia
  Slovenia
  Spain
  United Kingdom
  United States
  Belgium Ministry of Economic Affairs

- **Embassies in Brussels** (Attn: Commercial Attaché):

  Albania
  Bulgaria
  Canada
  Croatia
  Czech Republic
  Denmark
  Estonia
  France

Germany
Greece
Hungary
Italy
Latvia
Lithuania
Luxembourg
Montenegro
The Netherlands
North Macedonia
Norway
Poland
Portugal
Republic of Türkiye
Romania
Slovakia
Slovenia
Spain
United Kingdom
United States

- **NATO HQ**

  NATO Office of Resources
  Management and Implementation Branch – Attn: Deputy Branch Chief

  Director, NATO HQ C3 Staff
  Attn: Executive Co-ordinator

  SACTREPEUR
  Attn: Infrastructure Assistant

  SHAPE
  Attn: J3 & J2

- **Strategic Commands**

  ACO/DCOS CIS & Cyber Defence
  ACT/DCOS Capability Development

- **NATEXs**

  All NATEX

REQUEST FOR QUOTATION

RFQ-CO-115363-PRT TDCIS

Amendment 8

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

ANNEX A

Response to Clarification Requests

ANNEX A – Responses to Clarification Requests

ADMINISTRATIVE/CONTRACTUAL				
Serial Nr	**RFQ Section Ref.**	**OFFEROR'S QUESTION**	**NCI AGENCY ANSWER**	**Status**
A.1	General	Notification of Intent Amendment 2 (Reference L dated 6 September 2022) of the Request for Quotation RFQ-CO-115363-PRT-TDCIS, Amendment 7 dated 25 October 2022 included an Estimated+A2:B39 Value: EUR 33,199,650.00. Can NCIA please clarify the BOA Plus competition model as it relates to the Price Evaluation. Is this program intended to be a BOA with incremental purchases similar to the estimated value in Reference L, or a single order closer to the Offered Grand Total Firm Fixed Price? If incremental purchases, can NCIA provide additional details on the anticipated cadence of incremental orders?	Provided the Contract is awarded, there will be one order for the Base Contract. Options may be included in this order or may be ordered later through an amendment of the contract.	No amendment to RFQ required
A.2	Book I Bidding Instructions Section IV	What is the bid evaluation process for determining the lowest priced technically acceptable? Will the lowest bid overall be opened first or will all bids be evaluated on technical acceptability?	Administrative and price evaluation will be conducted for all bids. Only the administrative compliant, lowest priced bid will be evaluated for technical compliance. If the lowest priced bid fails the technical compliance evaluation, the second lowest bid will be evaluated for technical compliance.	No amendment to RFQ required
A.3	Book I Bidding Instructions Section 2.2	Are countries that are currently in process of becoming NATO member nations eligible to become "Participating Countries" in this program?	No, only current NATO member nations are Participating Countries.	No amendment to RFQ required

ADMINISTRATIVE/CONTRACTUAL				
Serial Nr	**RFQ Section Ref.**	**OFFEROR'S QUESTION**	**NCI AGENCY ANSWER**	**Status**
A.4	Book II Special Provisions 16.	Do all Key personnel need to be from the prime contractor or can some roles be filled by subcontractors?	They need to be the main contractor personnel.	No amendment to RFQ required
A.5	General	We kindly propose to clarify whether it is possible to form a consortium or must there be an individual company as prime contractor?	It is possible for Bidders to form a consortium. However, the NCI Agency requires that only the main contractor signs the contract, who will be fully responsible and liable under the contract and act as a single point of contact.	No amendment to RFQ required
A.6	General	If a consortium is allowed, is there any need to submit within the proposal a draft of the consortium agreement or is an intention to form a consortium signed by the parties enough?	There is no need to submit a consortium agreement or a letter of intent of such, as the main contractor, who is signing the contract with the NCIA Agency will act as single point of contact and assume full responsibility and liability under the contract.	No amendment to RFQ required
A.7	General	What is the Budget/Financial envelope and over what timelines?	The estimated value of the contract is 33,199,650.00 EUR over the contract duration.	No amendment to RFQ required
A.8	General	What is the split in the budget between CAPEX and OPEX?	The estimated value of 33,199,650.00 EUR includes the investment part.	No amendment to RFQ required

ADMINISTRATIVE/CONTRACTUAL				
Serial Nr	**RFQ Section Ref.**	**OFFEROR'S QUESTION**	**NCI AGENCY ANSWER**	**Status**
A.9	General	Are clarifications released in Amendments 1 to 6, if not addressed in the new IFB release, still applicable or shall they be re-issued?	Amendment 7 to the RFQ replaced the RFQ released in June 2021 in its entirety including Amendments 1 to 6, Clarification Requests and NCIA responses to Clarification Requests. Clarification requests may be re-issued if not addressed in AMD7 of the RFQ or otherwise obsolete.	No amendment to RFQ required

TECHNICAL				
Serial Nr	**RFQ Section Ref.**	**OFFEROR'S QUESTION**	**NCI AGENCY ANSWER**	**Status**
T.1		How do the enabled for systems factor into the required Size, Weight and Power (SWaP) requirements of each node? For example, does the transit node need to have room to and in the NS and R domain network racks without reconfiguring the existing equipment?	Applying the definition from PRTTDCIS-1523 (SRS-9), when an Node is marked as "Enabled For", it means that the Node will include all necessary enablers (e.g. cabling, rack space, power, etc.) to allow PRT Army to expand the Node with those additional functionalities by installing additional hardware (from the Pooled Elements or transfered between Nodes) into this particular Node. With the example of the Transit Node, it is not the intention to re-configure any existing Element (e.g. CCA router, etc.) from xU to xS or xR but to augment the TN with additional hardware to enable a xS and/or a xR security domain. Some light re-configuration (such as PCA router interface configuration, patching cables, etc.) are expected. For Rack space, additional hardware inserted, by PRT Army, in the Nodes to activate the "Enabled For" functionalities will benefit from empty rack units left by	No amendment to RFQ required

TECHNICAL				
Serial Nr	**RFQ Section Ref.**	**OFFEROR'S QUESTION**	**NCI AGENCY ANSWER**	**Status**
			the common design principle for all Shelters, as per PRTTDCIS-1241 (SRS-1114) and PRTTDCIS-1375 (SRS-1115), and the room for future equipment as per PRTTDCIS-2121 (SRS-1171).	
T.2		Is all system level (mechanical, environmental, EMI/EMC) testing required to be done in Portugal?	Qualification tests can be done at a facility at the discreation of the Contractor.	No amendment to RFQ required
T.3		Can the system be incrementally tested for conformance to system level testing (i.e. testing shelter for rain ingress and it passes, means that nothing stored inside the shelter must be tested for rain and water ingress?)	We do not need to have the Shelter filled with IT equipment to verify its compliance with rain test. However, all external appliances need to be present for the rain test to avoid that they validate a shelter without any openings and then start drilling holes and cutting openings after it.	No amendment to RFQ required
T.4		At what level of detail do the preliminary CDRLs need to be at during the proposal submission? (i.e. are they just meant as an outline)	Please see SoW DOC-35 and Bidding Instructions Section 3.	No amendment to RFQ required

TECHNICAL				
Serial Nr	**RFQ Section Ref.**	**OFFEROR'S QUESTION**	**NCI AGENCY ANSWER**	**Status**
T.5		Will Federated Mission Networking (FMN) Spiral 3 specifications be the baseline requirements for the full period of delivery and at the Final System Acceptance date of this program?	That is correct.	No amendment to RFQ required
T.6	Book II Part IV SOW Annex A PRTTDCIS-4325 (SRS-774) PRTTDCIS-4331 (SRS-779)	What is the purpose of the two servers on high and low side? What should be accomplished with them? SDOT Data Device does not need additional servers for data transfer.	The servers on both High and Low Sides are meant to regulate and adapt traffic (where and when necessary) with the Diode specific software in order to ensure correct transfer of traffic from Low to High.	No amendment to RFQ required
T.7	Book II Part IV SOW Annex A PRTTDCIS-4327 (SRS-776)	Accreditation to NATO S*CR*T is given in case of there is a firewall in front of the low side. xU needs firewall in front of low interface.	In the particular case of the PRT TDCIS project, the DDM Low Side is xR and not xU. Purchaser do not see any need for additional firewalls in the DDM, this firewall functionality shall be fulfilled by the xR BPS subsystem existing in the Node augmented with the DDM.	No amendment to RFQ required

TECHNICAL				
Serial Nr	**RFQ Section Ref.**	**OFFEROR'S QUESTION**	**NCI AGENCY ANSWER**	**Status**
T.8	Book II Part IV SOW Annex A PRTTDCIS-4332 (SRS-780)	Why do you always stick to fibre optic hardware drives? SDOT data drive is proven secure up to NATO S*CR*T by the German by the German Federal Office of IT Security.	Comment taken, one-way fibre optic based Data Diode requirement pertains.	No amendment to RFQ required
T.9	Book II Part IV SOW Annex A PRTTDCIS-4337 (SRS-785) PRTTDCIS-4338 (SRS-786) PRTTDCIS-4339 (SRS-787) PRTTDCIS-4340 (SRS-788)	Does this have to be directly in the Diode or can it be done by the application servers in front?	The DDM has to fulfill those requirements. Where those functionalities are being performed (in the diode of the servers) is design driven.	No amendment to RFQ required

TECHNICAL				
Serial Nr	**RFQ Section Ref.**	**OFFEROR'S QUESTION**	**NCI AGENCY ANSWER**	**Status**
T.10	Book II Part IV SOW Annex A PRTTDCIS-4352 (SRS-799)	System is only manageable by Admin Web GUI with natural TLS authentication. There is no other way to log into the Diode as to restrictions of the accreditation process. Is this fine as it is part of the security accreditation?	Achieving Security Accreditation is a Contractor responsibility. Mentioning SSH in PRTTDCIS-4352 (SRS-799) is for example purpose only.	No amendment to RFQ required
T.11	Book II Part IV SOW Annex A PRTTDCIS-4332 (SRS-780)	Why is a design decision made here? Requiring physical opic fibre is not a functional requirement but a design decision which is not vendor neutral at all.	Please see the reply to T.8	No amendment to RFQ required
T.12	Book II Part IV SOW Annex A PRTTDCIS-4329 (SRS-806)	Again, requiring EAL7 or national equivalent DDM is not vendor neutral. The small piece of fiber optic does not provide any assurance to used protocols and proxies of the DDS.	EAL7 or national equivalent requirement pertains.	No amendment to RFQ required

TECHNICAL				
Serial Nr	**RFQ Section Ref.**	**OFFEROR'S QUESTION**	**NCI AGENCY ANSWER**	**Status**
T.13	Book II Part IV SOW Annex A PRTTDCIS-3846 (SRS-641)	As mentioned item, the back up plan will be weekly, monthly and yearly. What are details of which schedule will be for which domain?	Backup and Recovery functions are being fulfilled by the DRS Subsystem as per PRTTDCIS-1737 (SRS-693). ISM payload, in every Node and Security Domain, is the combination of the PFE payload, Design Driven Payload and provision for future expansion. With this in mind, the DRS shall be dimensioned in such a way that it can host all snapshots, of the ISM it is included into, as defined in PRTTDCIS-3846 (SRS-641)	No amendment to RFQ required
T.14	Book II Part IV General	Can Bidders use "innovation" to offer overall standardisation of the deployment, e.g. less UADs, tin/string" and "less diesel"; if yes, is there both a willingness and a window of opportunity to alter the proposed architecture?	This question was rasied during the bidding conference and further clarified as follow: "Can the bidder propose cross-domain solutions to , for instance, reduce the quantities of End User appliances while consuming services remotely from another Security Domain?" With this additional clarification in mind, No, the Bidder may not alter the architecture or the quantities of required end user devices.	No amendment to RFQ required

TECHNICAL				
Serial Nr	**RFQ Section Ref.**	**OFFEROR'S QUESTION**	**NCI AGENCY ANSWER**	**Status**
T.15	Book II Part IV General	Is there an implied need for PRT National Secret to securely "browse across" to TDCIS, using a secure cross-domain access solution (COTS product)?	No, all cross-domain transfer of data requirements are meant to be unidirectional from xU to xR (Primarily BPS based, DDM enabled as per PRTTDCIS-4361 (SRS-386)) and from xR to xS (DDM based as per PRTTDCIS-4362 (SRS-390)). The intention is to have Low to High unidirectional data flow for transfering for instance, but not limited to, weather data.	No amendment to RFQ required
T.16	Book II Part IV NATO S*CR*T EXT 14T	Is there an implied need for PRT National Secret to securely "browse across" to TDCIS, using a secure cross-domain access solution (e.g. a "browse up" use case from deployed to strategic)?	Please see the reply to T.15	No amendment to RFQ required
T.17	Book II Part IV SOW Annex A ~~SRS-359~~ PRTTDCIS-1823 (SRS-1493)	About "Viasat Eclypt Core 600 SATA SSD 7mm – 1286B (x5 Laptops): - Did the end user create x ref for requirement? If not, did the purchaser contact related authorities to create xref? - Who has the responsibility to install and encrypt the discs? Contractor or end user?	It is supposed that the CR relates to PRTTDCIS-1823 (SRS-1493) instead of SRS-359 originally quoted. As Viasat Eclypt Hard Drives are Contractor deliverables, it is the responsibility of the Conractor to install those disks in the Workstations. During the project execution, it is a Contractor responsibility to endrypt the	No amendment to RFQ required

TECHNICAL				
Serial Nr	**RFQ Section Ref.**	**OFFEROR'S QUESTION**	**NCI AGENCY ANSWER**	**Status**
			disks. After project delivery, when workstations will be operationaly used by PRT staff, PRT will take care of Mission/Exercise specific encryption. The contractor is required to get the required sales authorization.	
T.18	Book II Part IV SOW Annex A SRS-359 PRTTDCIS-1823 (SRS-1493)	What is the amount of Keystone Tokens per disk for Viasat Eclypt Core 600 SATA SSD? Please clarify.	It is supposed that the CR relates to PRTTDCIS-1823 (SRS-1493) instead of SRS-359 originally quoted. The project shall deliver TWO (02) Keystone Tokens Viasat Eclypt Core 600 SATA SSD. See new PRTTDCIS-4736 in SRS v2.2	Please see updated SRS V.2.2
T.19	Book II Part IV SOW Annex A SOW-4.9.1.2	Deployment requirements are given in section 4.9.1.2. However, Deployment XXX is removed from Table and IPS Delievrables. Is Deployment XXX a deliverable during bid? Could you please clarify?	Para 4.9.1.2 is reworded from "Deployment Manual" --> to "Deployment Guide" IPS-105 is reworded: *The Operation Manual shall include Deloyment Guide for each node covering the specific needs for each node type.* IPS-108 change from "Deployment Manual" -->to "Deployment Guide"	Please see updated SoW AMD8 IPS-105 & 108

TECHNICAL				
Serial Nr	**RFQ Section Ref.**	**OFFEROR'S QUESTION**	**NCI AGENCY ANSWER**	**Status**
T.20	Book II Part IV SOW	What are the main changes of SOW compared to last year?	See Slide "PRT TDCIS – What's New in SRS v2.0" from Bidder Conference Slide deck. SSS has a new structure. Testing phases are changed.	Please see updated SRS V.2.2 and SoW AMD8
T.21	Book II Part IV SOW	What are the main PFE to be integrated in the system?	See section 3.2.6 (SRS v2.1) which details PFEs. All architecture diagrams also include PFE markings.	No amendment to RFQ required
T.22	Book II Part IV SOW Annex A PRTTDCIS-4471 (SRS-1464)	It is stated that max. weight of the TINY case is 10 kg, including lids, when it is containing its housed elements, fully assembled and enclosed. UAM elements such as switch or UPS will be integrated in TINY cases and 10 kg weight limit is too low. Could you please clarify whether it is just TINY cases without housed elements or not?	TINY case maximum weight is as stated in PRTTDCIS-4471 (SRS-1464): 10kg, including housed elements.	No amendment to RFQ required
T.23	Book II Part IV SOW Annex A PRTTDCIS-	Despite a headset is illustrated as a part of System Administrator Workstation on Figure 14 (System Administrator Workstation), there are no features about this headset in	The Headset is a project deliverable which shall be used by Sys Admins to participate in Voice Call and VTC sessions. See new section 8.4 in SRS v2.2	Please see updated SRS V.2.2

TECHNICAL				
Serial Nr	**RFQ Section Ref.**	**OFFEROR'S QUESTION**	**NCI AGENCY ANSWER**	**Status**
	4469 (SRS-225)	any part of the document. Could you please clarify is the headset PFE or project deliverable? If the headset is project deliverable, please share the requirements that shall be met.		
T.24	Book II Part IV SOW Annex A PRTTDCIS-2291 (SRS-1441)	SRS-1441 indicates that the electrically operated telescopic antenna mast shall support a Beyond Line of Sight (BLOS) HF Rotating Log-periodic Antenna which is PFE. Weight and dimension of this log-periodic antenna are critical to choose mast. Could you please share detailed information about the log-periodic-antenna?	The PFE HF Log Periodic antenna will be an ALARIS RA10-118-01 (aprox 40kg and 8m boom length) mounted on a YAESU G-2800DXC Rotator (approx. 7kg). See also new PRTTDCIS-4737 in SRS v2.2	Please see updated SRS V.2.2
T.25	Book II Part IV SOW Annex A PRTTDCIS-3064 (SRS-827)	What is the rotation capability range of the antenna?	As Datalinks (Mini-LOS and HCLOS) are project deliverables, this is design driven. Ideally as close as possible to 360 degrees to provide the maximum deployment flexibility to Users.	No amendment to RFQ required

TECHNICAL				
Serial Nr	**RFQ Section Ref.**	**OFFEROR'S QUESTION**	**NCI AGENCY ANSWER**	**Status**
T.26	Book II Part IV SOW Annex A PRTTDCIS-2268 (SRS-1360)	"The maximum weight of the trailer including all installed equipment shall not exceed 2000kg." The trailer weights more than 2000kg with all its equipment. Could we exceed 2000kg weight for this SRS? Please confirm.	No, trailer maximum weight of 2000kg with all its equiment pertains.	No amendment to RFQ required
T.27	Book II Part IV SOW Annex A PRTTDCIS-2271 (SRS 1405)	"The GAR-T trailer electric system shall be 24VDC." Is the 24VDC electrical system for the trailer-vehicle connection? Please confirm.	That is correct.	No amendment to RFQ required
T.28	Book II Part IV SOW Annex A PRTTDCIS-3186 (SRS-1425)	"Camouflage net shall be 100% waterproof and will not become logged or heavy due to wet or damp conditions." Less than 25% water absorption capacity is accepted by NATO approved camouflages. Can we continue like this? Please confirm.	Purchaser is not aware of any NATO standard allowing water absoption up to 25%. The Camouflage Net water absoption shall not exceed 10%. See also updated PRTTDCIS-3186 (SRS-1425) in SRS v2.2	Please see updated SRS V.2.2

TECHNICAL				
Serial Nr	**RFQ Section Ref.**	**OFFEROR'S QUESTION**	**NCI AGENCY ANSWER**	**Status**
T.29	Book II Part IV SOW Annex A PRTTDCIS-2750 (SRS-1292)	According to the requirements in reference, the Sys Admin Tent should be located inside the shelter when it is not in use. However, the size of the tent may take up more space than thought, because of the structural requirements for the tent. In order for shelters settlement to remain useful and available for existing or future requirements, the tent can be mounted on the shelters external wall with its protection interface. Kindly share your comments and considerations on the recommendation.	Correct, the tent may be stored inside the shelder of in any design-driven solution within the allocable areas defined in PRTTDCIS-1387 (SRS-1131) as long as its does not prevent the operation of the shelter or its housed elements in any node variant configuration. See amended PRTTDCIS-2750 (SRS-1292) and new PRTTDCIS-4735 in SRS v2.2	Please see updated SRS V.2.2
T.30	Book II Part IV SOW Annex A PRTTDCIS-2173 (SRS-1202)	In order to integrate shelters internal housing elements properly, main working area of shelter will require 2200 mm x 2400 mm available space for internal dimension. To generate this free space, the shelter internal power generator will be covered and protected in the scope of environmental endurance requirements mentioned in SRS document. (There will not be any changes on shelters main structure and standard dimensions of twist-locks, ISO corners by this suggestion.)	Yes. The ISO 10ft container characteritics of the shelter must be maintained to ensure its mounting on vehicles and trailers (twits locks, ISO corners position, dmension, etc.). The Contractor has full librety to use the allocable areas for the design, as long as nothing protrudes outside of those allocable areas.	No amendment to RFQ required

TECHNICAL				
Serial Nr	**RFQ Section Ref.**	**OFFEROR'S QUESTION**	**NCI AGENCY ANSWER**	**Status**
T.31	Book II Part IV SOW Annex A SRS (7.3.3 (Racks)	There is not a specific requirement that indicates the quantity of 19" rack cabinets. Is there any condition for racking system such as "each security domain shall be located in its individual rack cabinet. None of the units with different security domains will be mounted in the same rack cabinet."? Is it possible to locate equipments of different security domains in the same rack cabinet (e.g. xR and xS equipments located in the same rack group)? In conclusion, is it possible to practice on the unit settlements of existing and future equipments with racking system consisting of less than four (4) 19" rack cabinets?	Correct, nothing prevents the installation of elements in shared racks between security domains and nothing forces the design to split the different security domains in separate racks, as long as it meets all security requirements related to security domains isolation as per SDIP 29/2 (PRTTDCIS-1145 (SRS-109) and PRTTDCIS-1146 (SRS-110)) which might require the use of TEMPEST solutions if minimum distance(s) cannot be met; and as long as reserved rack spaces for future expansion requirements as defined in PRTTDCIS-2121 (SRS-1171).	No amendment to RFQ required
T.32	Book II Part IV SOW Annex A PRTTDCIS-1379 (SRS-1123)	The total weight of PGU, Racking System (fully loaded) and 10ft ISO Container already has the value of 3000 – 3500 kg. Supposedly, a shelter total gross weight will require at least 800 kg. more weight permission because of the other payloads such as UPS, ECU and Ancillary Equipment. Please let us know if the weight limit can be extended, or if some of the mentioned units	No, shelter maximum weight of 3500kg with all its equiment pertains.	No amendment to RFQ required

TECHNICAL				
Serial Nr	**RFQ Section Ref.**	**OFFEROR'S QUESTION**	**NCI AGENCY ANSWER**	**Status**
		are not considered as payload.		
T.33	Book II Part IV SOW Annex A SRS 4.9.1.2	Deployment Manual requirements are given in Section 4.9.1.2 but, Deployment Manual is removed from Table 4-1 IPS deliverables. Is Deployment Manual a deliverable during the bid?	Please see the reply to T.19.	No amendment to RFQ required
T.34	Book II Part IV SOW Annex A PRTTDCIS-2881 ([110]) PRTTDCIS-2883 (SRS-359)	Acccording to the item [109] COI Services (known as Functional Area Services) will be PFE. The Contract shall create and configure VM as per the item SRS-359. There is not any capacity, users and etc. request for the VM, Kindly clarify.	See PRTTDCIS-3016 (SRS-289) for the COI/FAS PFE payload. Details on the VM quantities, etc. will be provided to the Contractor post Contract Award.	No amendment to RFQ required
T.35	Book II Part IV SOW Annex A PRTTDCIS-	Services are described as 5 items on Section 4 Service heading. These are: 1. Business Support Services 2. Community of Interest (COI) Services	Communication Services related requirements are mainly to be found in Chapter 6 for Transmission Systems, and in Chapter 5 for Transport, PCA, CCA and MMA Services. PCA, CCA and MMA	No amendment to RFQ required

TECHNICAL				
Serial Nr	**RFQ Section Ref.**	**OFFEROR'S QUESTION**	**NCI AGENCY ANSWER**	**Status**
	4032 ([50])	3. CIS Security Services 4. Interconnection to Nation Service 5. Service Management and Control And described and shared design architecture and concept as per the TDCIS nodes and the NS kit. According to item [50], described 2 services. These are: 1. Communication Services: • Transmission Services • Transport Services • Protected Core Access (PCA) Services • Coloured Cloud Access (CCA) Services • Multi Media Access (MMA) Services 2. Infrastructure Services: • Business Support Services • Community of Interest (COI) Services • Service Management and Control (SMC) Services • CIS Security	services are aligned with the associated sub-systems of the same name.	

TECHNICAL				
Serial Nr	**RFQ Section Ref.**	**OFFEROR'S QUESTION**	**NCI AGENCY ANSWER**	**Status**
		As a result, Communication Services design architecture and concept not given. Kindly provide and clarify regarding info.		

RFQ-CO-115363-PRT-TDCIS

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

BOOK I

BIDDING INSTRUCTIONS

PAGE LEFT INTENTIONALLY BLANK

Table of Contents

SECTION I - INTRODUCTION

1.1 OVERVIEW

1.1.1 The purpose of this Request for Quotation (RFQ) is to establish a contract for the acquisition of tactical deployable Communications and Information Systems (TDCIS) for the Portuguese (PRT) Army with a secure, modular, sustainable and interoperable means of communications and information exchange with the 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).

1.1.2 Portugal (PRT) is the Host Nation (HN) for the TDCIS project and has the overall financial authority for the programme. The NATO Communications and Information Agency (NCIA) has been authorised to act as the Procurement Agency on behalf of the HN and is vested with the acquisition authority to conduct the NATO International Competitive Bidding (ICB) Procedure, and to award and administer the resulting Contract.

1.1.3 The contract performance requirements are set forth in the prospective contract Statement of Work (Book II Part IV) and in the Contract Schedule of Supplies and Services (Book II Part I).

1.1.4 This RFQ for TDCIS is conducted under Basic Ordering Agreement Plus (BOA+) procedures outlined within the “Procedure Governing the Use of Basic Ordering Agreements concluded by the NATO Communications and Information Agency – 2019 version, Ref: AC/4-D(2019)0004 (INV)”. Pursuant to these procedures, quotation submittal is restricted to companies from participating NATO member nations in accordance with paragraph 2.1.7 of Section II of the Bidding Instructions. The security of this RFQ is “NATO UNCLASSIFIED”.

1.1.5 This RFQ will not be the subject of a public opening.

1.1.6 Award of the Contract will be made on a Firm Fixed Price Basis to the lowest priced, compliant Offeror.

1.1.7 The solicitation, evaluation and award processes will be conducted in accordance with the terms and conditions contained herein.

1.1.8 A single contract will be placed with one Contractor. No partial bidding shall be allowed.

1.1.9 Site survey visits shall take place in Porto (Oporto), Portugal:

- Conduct Site survey of the customer provided training facility; EDC+ 30 weeks
- Conduct a pre-UAT(E) Site Survey and submit an SSR for Purchaser approval; EDC + 38 weeks

The site surveys intent is to collect information on the training, Acceptance Testing and OpTEVal Sites of the requirement.

1.1.10 The overall security classification of this RFQ is “NATO UNCLASSIFIED”.

1.1.11 The Offeror shall refer to the Purchaser all queries for a resolution of conflicts found in information contained in this document in accordance with the procedures set forth in paragraph 2.7 of Section II of the Bidding Instructions entitled "Requests for RFQ Clarifications".

1.1.12 The target date for Contract Award is 3rd Quarter 2023.

1.1.13 The Contractor shall achieve Final System Acceptance within 142 Weeks after the Effective Date of Contract (EDC).

1.2 PURPOSE

1.2.1. The Tactical Deployed Communication Information System (TDCIS) shall deploy with the Portuguese Army (PTA), who developed as a prototype, the proof-of-concept system called “Sistema de Informação e Comunicações - Tático (SIC-T)”.

1.2.2. The TDCIS is a modular System of Systems (SoS) configured into truck-mounted Shelters and Trailers that provides a CIS used on National and International (NATO and non-NATO) Deployed Operations and Exercises.

1.2.3. This TDICS is designed to support PTA national and multi-national expeditionary operations at a Brigade level and below; that proof-of-concept now needs uplifting.

1.2.4. This project is the basis for delivering a TDCIS to the Portuguese Army, as the uplift to the SIC-T system which they developed.

1.3 PROJECT SCOPE

1.3.1 TDCIS will comprise a range of Shelters and Trailers based Node types and a NATO S*cr*t (NS) Kit configured for a specific Mission deployment.

1.3.2 The Shelters are mounted on all-terrain vehicles that can be located in the operational scenario as per the mission requirements.

1.3.3 Missions may use both Shelters and Trailers, some will use two Shelters, others a single Shelter.

1.3.4 The trailers can be used independently as a Communication rebroadcast facility. In addition, to the Shelters there are also specialist Trailers, these too are Mission specific but their usage and variability is less complex than the Shelter.

1.3.5 The TDCIS **does not** include a dedicated Test and Reference Environment.

1.3.6 The TDCIS **does not** include a dedicated Training Environment.

1.3.7 The project will be executed in six phases, spanning from the Effective Date of Contract (EDC) to two (2) years of warranty following the declaration of FSA.

1.3.7.1 As a guide, the Purchaser has developed an Acitivity Flow that shall be used by the Contractor to understand the requirement.

1.3.7.2 The Activity Flow has 6 Phases with supporting enablers that comprise the following:

Phase 1 – System Design. This phase firmly sets the scene for the whole delivery, it shall conclude with a Preliminary Design Review (PDR) that sets expectation levels on the delivery lifecycle. This is the strategy phase with some of the CDRLs delivered as 'Presentational' with some information back up.

Phase 2 – System Development. This phase develops the PDR baseline further and places a number of key blueprint designs. It also offers the Contractor an opportunity to mature their individual strategies into firm baselined plans. This phase concludes with a Key Milestone CDR.

Phase 3 – Batch 1 Build. This phase focusses on the manufacture of the Batch 1 nodes. The Phase consists of 5-tranches of build and concludes with a full batch 1 Factory Acceptance Systems Test (FAST).

Phase 4 – Deliver Training, Conduct UAT(E) and PSA. The Contractor shall be responsible for the execution of this entire phase, including the conducting of Training and UAT(E) at the Customer's establishment. UAT(E) shall comprise of System and Interoperability Testing when the system's integration and compliance with NATO Federated Mission Network, Spiral 3, is to be evidenced.

Phase 5 – Support OpTEVal, and Build Batches 2 & 3 (Batch 3 is an Option). Following successful completion of the PSA, the OpTEval exercise plus production of Batches 2 & 3 are to be carried out concurrently. The Contractor shall provide consultancy type support to the TDCIS acceptance activity performed by the Customer during OpTEVal. Batches 2 and 3 shall be manufactured with a Factory Acceptance Test (FAT) carried out before delivery to the Customer Site.

Phase 6 – Achieve FSA. This Phase finalises the Project delivery. The phase will conclude when the Contractor and the Purchaser conclude their FSA Report. Contractor Warranty shall commence on successful completion of the FSA, and shall last for a period of two consecutive years.

1.3.8 The TDCIS design shall cover the full scope of the TDCIS systems.

1.3.8.1 This design documentation shall separately identify the design for the operational (production) and training systems.

1.3.8.2 The scope of the design shall encompass all the components needed to achieve the capability, including:

a. CIS Hardware;

b. Software and licensing;

c. Tooling to manage and support the TDCIS;

d. Non-CIS hardware (e.g. transit cases, tents, etc.).

1.3.8.3 The design shall strictly follow the structure in which requirements are formulated in Book II Part IV, Annex A (SRS).

1.3.8.4 The implementation of the TDCIS consists of the assembly, connection, integration and configuration of Commercial of The Shelf (COTS) components, into bespoke systems that are fit for purpose of meeting the Purchaser's requirements and used in support of National and NATO expeditionary operations.

1.4 SECURITY

1.4.1 This Request For Quotation has been classified as NATO UNCLASSIFIED. There is a limited number of references classified at NATO RESTRICTED level.

1.4.2 Contractor will be required to handle and store classified material to the level of "NATO S*CR*T" and the Contractor shall have the appropriate facility and personnel clearances of "NATO S*CR*T". Should a Contractor be unable to perform the Contract due to the fact that the facility clearance has not been provided by their respective national security agency, this lack of clearance cannot be the basis for a claim of adjustment or an extension of schedule, nor the lack of clearance be considered a mitigating circumstance in the case of an assessment of Liquidated Damages or a determination of Termination For Default by the Purchaser.

1.4.3 Contractor personnel working at NATO sites are required to possess a security clearance of "NATO S*CR*T". Contractor personnel without such a clearance, confirmed by the appropriate national security authority and transmitted to the cognisant NATO security officer at least fourteen (14) days prior to the site visit, will be denied access to the site. Denial of such access by the Purchaser may not be used by the Contractor as the basis for a claim of adjustment or an extension of schedule nor can the denial of access be considered a mitigating circumstance in the case of an assessment of Liquidated Damages or a determination of Termination for Default by the Purchaser. Contractor personnel who need System Administrator or Operator privileges when working on NATO S*CR*T systems shall be required to hold NATO CTS clearance.

1.4.4 Offerors are advised that Contract signature will not be delayed in order to allow the processing of security clearances for personnel or facilities and, should the otherwise successful Offeror not be in a position to accept the offered Contract within a reasonable period of time, due to the fact that its personnel or facilities do not possess the appropriate security clearance(s), the Purchaser may determine the Offeror's quotation to be non-compliant and offer the Contract to the next ranking Offeror.

1.4.5 All documentation, including the RFQ itself, all applicable documents and any reference documents provided by the Purchaser are solely to be used for the purpose of preparing a response to this RFQ. They are to be safeguarded at the appropriate level according to their classification and reference documents are provided "as is, without any warranty" as to quality or accuracy.

1.5 BIDDERS' CONFERENCE

1.5.1 Prospective Bidders are invited to participate in the Bidders' Conference that will be held on 18th November 2022 in Brussels. The Bidders' Conference will be chaired by the NCI Agency.

1.5.2 Participation to the Bidders' Conference is limited to a maximum of two (2) persons per company. No exception to this number of attendees will be made. The Bidders

are responsible for the costs of travel, lodging and per diem for its representatives during the Bidders' Conference.

1.5.3 The Bidders' Conference will be held in accordance with the tentative agenda below. Details of the precise venue will be provided to the participating companies in due course via the event portal identified below.

- Introduction
- RFQ package presentation
- Review of Scope and Schedule
- Review of Service Requirements and SLA framework
- Questions and Answers

1.5.4 Those Bidders who wish to participate in the Bidders' Conference shall indicate their intention to attend not later than 10 days prior to the conference date by submitting the "Request for Visit" form, which is enclosed to the cover letter of this RFQ, to the Point of Contact under Para. 1.5.12.1 below. Each Bidder may nominate up to 3 representatives to attend the conference.

1.5.5 Bidders Conference is NATO UNCLASSIFIED.

1.5.6 Prospective Bidders are informed that the participation to the Bidders' Conference is not mandatory for bidding purposes.

1.5.7 Any questions which the potential Bidders would like to be answered at the Bidders' Conference must be submitted in writing not later than three (3) working days prior to the conference to the to the Point of Contact under Para. 1.5.12.1 below.

1.5.8 The Purchaser will respond to the previously submitted questions at the Bidders Conference. If any additional questions are asked by the potential Bidders at the Bidders Conference, the Purchaser might attempt to provide answers at that time, but any answer that might appear to amend terms, conditions and/or specifications of the Contract shall be considered to be formally included in the RFQ only if a written amendment to the RFQ is issued in writing by the Purchaser.

1.5.9 Any question that the potential Bidders would like to have answered after the Bidders' Conference must be submitted in writing within one (1) week after the Bidders' Conference, but not later than ~~twenty eight (28)~~ fourteen (14) calendar days prior to the Bid closing date, to the Contracting Officer at the address mentioned in Para. 1.5.12.1 below.

1.5.10 Answers to all questions will be issued in writing to all Bidders as soon as practicable, whether or not the Bidders have attended the Bidders' Conference. The formal written answers will be the official response of the Purchaser, even if the written answer differs from the verbal response provided at the Bidders' Conference.

1.5.11 Irrespective of the written answers provided by the Purchaser after the Bidders' Conference, the terms, conditions and language of the RFQ remains unaltered unless a formal RFQ amendment is issued by the Purchaser, and is identified as such.

1.5.12 The Agency Point of Contact (POC) for the Bidders' Conference is as follows:

1.5.12.1 Mr Ole Hubner (NCI Agency Senior Contracting Officer), Email: ole.hubner@ncia.nato.int

1.5.13 COVID-19 related requirements will be provided closer to the date of the event. The Purchaser reserves the right to cancel the event at any time should the pandemic restrictions prevent holding it. The Purchaser shall not be liable for any event cancellation costs incurred by the Prospective Bidders.

SECTION II – GENERAL BIDDING INSTRUCTIONS

DEFINITIONS

2.1.1 “Assembly”: As used herein, the term “Assembly” means an item forming a portion of equipment that can be provisioned and replaced as an entity and that normally incorporates replaceable parts or groups of parts.

2.1.2 The term “Basic Ordering Agreement” (BOA) refers to the acquisition instruments negotiated between suppliers of products / services and the NCI Agency, on behalf of NATO.

2.1.3 The term "Compliance" as used herein means strict conformity to the requirements and standards specified in this Request for Quotation.

2.1.4 The term "Contractor" refers to a firm of a participating country which has signed a Contract under which he will perform a service, manufacture a product, or carry out works for NATO.

2.1.5 “Host Nation”: A Participating Country, major NATO Command or a NATO Agency which is responsible for implementing a project. In this particular RFQ, the Host Nation refers to Portugal (PRT).

2.1.6 The term "Offeror" as used herein refers to a firm, consortium, or joint venture which submits an offer in response to this solicitation.

2.1.7 The term “Participating Country” as used herein means one of the contributory NATO nations in the project, namely, (in alphabetical order): ALBANIA, BELGIUM, BULGARIA, CANADA, CROATIA, CZECH REPUBLIC, DENMARK, ESTONIA, FRANCE, GERMANY, GREECE, HUNGARY, ICELAND, ITALY, LATVIA, LITHUANIA, LUXEMBOURG, MONTENEGRO, NETHERLANDS, NORTH MACEDONIA, NORWAY, POLAND, PORTUGAL, REPUBLIC OF TÜRKIYE, ROMANIA, SLOVAKIA, SLOVENIA, SPAIN, UNITED KINGDOM, UNITED STATES OF AMERICA.

2.1.8 The term "Purchaser" refers to the authority issuing the RFQ and/or awarding the Contract (the NCI Agency).

2.1.9 “Sub-Assembly”: The term “Sub-Assembly” as used herein refers to a portion of an Assembly consisting of two or more parts that can be provisioned and replaced as an entity. The definition purposely excludes components and/or parts as defined in ACodP-1.

2.2 ELIGIBILITY

2.2.1 This RFQ is being conducted under BOA plus procedures, therefore, firms which hold an active Basic Ordering Agreement (BOA) with the NCI Agency are eligible to take part in this RFQ along with those firms nominated through their Delegations via a Declaration of Eligibility.

2.2.2 All Contractors, sub-Contractors and manufacturers, at any tier, must be from Participating Countries.

2.2.3 None of the work, including project design, labour and services shall be performed other than by firms from and within Participating Countries.

2.2.4 No materials or items of equipment down to and including identifiable sub-assemblies shall be manufactured or assembled by a firm other than from and within a Participating Country.

2.2.5 The intellectual property rights to all design documentation and related system operating software shall reside in NATO member countries, and no license fee, or royalty charges shall be paid by the Contractor to firms, individuals or governments other than within the NATO member countries.

2.3 QUOTATION SUBMITTAL AND QUOTATION CLOSING DATE

2.3.1 All Quotations shall be in the possession of the Purchaser at the email address given below in Paragraph 2.3.2.1 below before 17:00 hours (Brussels TIME) on Tuesday, 31 January, 2023 at which time and date Quotations shall be closed.

2.3.2 Offerors are requested to submit their quotation electronically to the following email address:

2.3.2.1 Email: RFQ-CO-115363-PRT-TDCIS@ncia.nato.int

2.3.3 The Quotation shall consist of three (3) separate subject emails:

2.3.3.1 For the first e-mail the subject line shall read: "***PRT TDCIS– Official Bid for [company name] – Part I - Admin***". The e-mail content shall be as described in Paragraph 3.2.2, Part I: Administration Package below, with no password protection to the file and shall be not larger than 20MB total.

2.3.3.2 For the second e-mail the subject line shall read: "***PRT TDCIS-Official Bid for[company name] – Part II - Price***". The e-mail content shall be as described in Paragraph 3.2.2, Part II: Price Proposal below, with no password protection to the file, and shall be not larger than 20MB total.

2.3.3.3 For the third e-mail the subject line shall read: **"PRT TDCIS – Official Bid for [company name] – Part III – Technical"**. The e-mail content shall be as described in Paragraph 3.2.2, Part III: Technical Proposal below, with no password protection to the file, and shall be not larger than 20MB total per e-mail. For large Technical Proposals, multiple e-mails may be required to submit the entire package. In such case, Offerors shall clearly indicate the correct order in the e-mail subject line.

2.4 LATE BIDS

2.4.1 Quotations received at the NCIA e-mail address after the date and time indicated in paragraph 2.3.1 may not be eligible for award.

2.4.1.1 Bids submitted electronically may be considered late unless the Offeror completes the entire transmission of the bid before the closing date and time for receipt of bids under this solicitation.

2.4.2 Consideration of Late Bid

2.4.2.1 The Purchaser considers that it is the responsibility of the Offeror to ensure that the bid submission arrives by the specified bid closing time. A late bid will only be considered for award under the following circumstances:

2.4.2.1.1 A contract has not already been awarded pursuant to the RFQ, and;

2.4.2.1.2 The bid was sent to the correct email specified in paragraph 2.3.2.1 above, and;

2.4.2.1.3 The delay was due solely to the fault of the Purchaser.

2.4.3 Receipt of an Unreadable Electronic Bid

2.4.3.1 If a bid received at the NCIA's facility by electronic data interchange is unreadable to the degree that conformance to the essential requirements of the solicitation cannot be ascertained, or due to Offerors's submission, in contravention of these bidding instructions, of electronic files that are encrypted or which contain passwords, the CO shall immediately notify the Offeror that the bid will be rejected unless the Offeror provides clear and convincing evidence:

2.4.3.1.1 of the content of the bid as originally submitted, and;

2.4.3.1.2 that the unreadable condition of the bid was caused by Purchaser software or hardware error, malfunction, or other Purchaser mishandling.

2.4.3.2 A bid that fails to conform to the above requirements may be declared noncompliant and may not be evaluated further by the Purchaser.

2.4.3.3 If it is discovered, during either the Administrative, Price or Technical evaluation, that the Offeror has submitted an unreadable electronic bid, the Offeror may be determined to have submitted a non-compliant bid.

2.5 REQUESTS FOR EXTENSION OF QUOTATION CLOSING DATE

2.5.1 All questions and requests for extension of the Quotation Closing Date must be submitted by e-mail. Such questions shall be forwarded to the point of contact specified in paragraph 2.6.2.1 below and shall arrive not later than seven (7) calendar days prior to the stated "Quotation Closing Date". The Purchaser is under no obligation to answer requests submitted after this time. Extensions to the quotation closing date are at the discretion of the Purchaser.

2.6 PURCHASER POINT OF CONTACT

2.6.1 The Purchaser point of contact for all information concerning this RFQ is:

NATO Communications and Information Agency
Acquisition Directorate
Attention: Mr. Ole Hubner, Senior Contracting Officer
Boulevard Leopold III
B-1110 Brussels, Belgium

2.6.2 Email:

2.6.2.1 RFQ-CO-115363-PRT-TDCIS@ncia.nato.int

Please remember <u>do not password protect</u> any of your documents

2.7 REQUESTS FOR RFQ CLARIFICATIONS

2.7.1 Offerors, during the solicitation period, are encouraged to query and seek clarification of any matters of a contractual, administrative and technical nature pertaining to this RFQ.

2.7.2 All questions and requests for clarification must be submitted by e-mail and using the form in Annex A of Book I – Bidding Instructions. All questions and requests must reference the section(s) in the RFQ subject for clarifications. The questions and/or requests shall be forwarded to the email address specified in paragraph 2.6.2.1 above and shall arrive not later than ~~seven (7)~~ fourteen (14) calendar days prior to the stated "Quotation Closing Date". The Purchaser is under no obligation to answer questions submitted after this time. Requests for clarification must address the totality of the concerns of the Offeror for any given area, as the Offeror will generally not be permitted to revisit areas of the RFQ for additional clarification as noted in 2.7.3 below.

2.7.3 Offerors are advised that subsequent questions and/or requests for clarification included in a quotation shall neither be answered nor considered for evaluation and may be grounds for a determination of non-compliance.

2.7.4 Except as provided above, all questions will be answered by the Purchaser and the questions and answers (deprived of any means of identification of the questioner) will be issued in writing to all prospective Offerors. Answers will be provided via an amendment to the RFQ.

2.7.5 The published answers issued by the Purchaser shall be regarded as the authoritative interpretation of the RFQ, and may lead to a formal amendment to the RFQ. Such amendment may also contain changes to the language, terms, conditions and/or specifications of the RFQ. Amendments to the language of the RFQ included in the answers, and/or the formal RFQ amendment, shall be incorporated by the Offeror in its offer.

2.7.6 It is the responsibility of the Offerors to ensure that all Clarification Requests submitted bear no mark, logo or any other form or sign that may lead to reveal the Offeror's identity in the language constituting the clarification itself. This prescription is not applicable to the means used for the transmission of the clarification (i.e. email or form by which the clarification is forwarded).

2.7.7 The Purchaser declines all responsibilities associated to any and all circumstances regardless of the nature or subject matter arising from the Offeror's failure or inability to abide to the prescription in paragraph 2.7.6.

2.7.8 The Purchaser may provide for the removal of any form of identification in the body of the clarification request in those instances in which such practice is feasible as well as providing for a re-wording of the clarification request in those cases in which the original language submitted is deemed ambiguous, unclear, subject to different interpretation or revelatory of the Offeror's identity.

2.7.9 The Purchaser reserves the right to reject clarification requests clearly devised or submitted for the purpose of artificially obtaining an extension of the Bidding time (i.e. clarifications re-submitted using different wording where such wording does not change the essence of the clarification being requested).

2.8 REQUESTS FOR WAIVERS AND DEVIATIONS

2.8.1 Offerors are informed that requests for alteration to, waivers of, or deviations from the Schedule, the Special Contract Provisions, the Terms and Conditions in the NCI Agency's Basic Ordering Agreement, the Technical Specifications, the Statement of Work and any other Terms and Conditions of the Prospective Contract will not be considered after the Request for Clarification process.

2.8.2 Requests for alterations to the other requirements, terms or conditions of the RFQ or the Prospective Contract may only be considered as part of the clarification process set forth in paragraph 2.7 above. Requests for alterations to the specifications, terms and conditions of the Contract which are included in a Quotation as submitted may be regarded by the Purchaser as a qualification or condition of the Quotation and may be grounds for a determination of non-compliance.

2.9 AMENDMENT OF THE RFQ

2.9.1 The Purchaser may revise, amend or correct the terms, conditions and/or specifications and provisions of the RFQ documents at any time prior to the date set for the Quotation Closing Date. Any and all modifications will be transmitted to all prospective Offerors by an official amendment designated as such and signed by the Contracting Authority. Such amendment shall be recorded in the Acknowledgement of Receipt which the Offeror shall complete and enclose as part of his quotation. This process may be part of the clarification procedures set forth in paragraph 2.7 above or may be an independent action on the part of the Purchaser.

2.9.2 The Purchaser will consider the potential impact of amendments on the ability of prospective Offerors to prepare a proper quotation within the allotted time. The Purchaser may extend the "Quotation Closing Date" at his discretion and such extension will be set forth in the amendment document.

2.9.3 In no case, however, will the closing date for receipt of quotation be less than seven (7) days from the date of issuance of any amendment to the RFQ.

2.9.4 All Amendments issued by the Purchaser shall also be acknowledged by the Offeror in its Quotation by completing the "Annex B-6 – Acknowledgement of Receipt of RFQ Amendments and Responses to Clarification Requests" Failure to acknowledge receipt of all Amendments may be grounds to determine the Quotation to be non-compliant.

2.10 MODIFICATION AND WITHDRAWAL OF QUOTATION

2.10.1 Quotations, once submitted, may be modified by Offerors, but only to the extent that the modifications are in writing, conform to the requirements of the RFQ, and are received by the Purchaser prior to the exact time and date established for Quotation Closing. Such modifications shall be considered as an integral part of the submitted bid.

2.10.2 Modifications to quotations which arrive after the Quotation Closing Date will be considered as "Late Modifications" and will be processed in accordance with the procedure set forth above concerning "Late Quotation", except that unlike a "Late Quotation", the Purchaser will retain the modification until a selection is made. A modification to a quotation which is determined to be late will not be considered in the evaluation and selection process. If the Offeror submitting the modification is

determined to be the successful Offeror on the basis of the unmodified quotation, the modification may then be opened. If the modification makes the terms of the quotation more favourable to the Purchaser, the modified quotation may be used as the basis of Contract award. The Purchaser, however, reserves the right to award a Contract to the apparent successful Offeror on the basis of the quotation submitted and disregard the late modification.

2.10.3 An Offeror may withdraw his Quotation at any time prior to Quotation Opening without penalty. In order to do so, an authorised agent or employee of the Offeror must provide an original statement of the firm's decision to withdraw the Quotation.

2.11 BID VALIDITY

2.11.1 Offerors shall be bound by the term of their quotation in which the Offeror has provided a quotation for a period of 12 months starting from the Quotation Closing Date specified at paragraph 2.3.1.

2.11.2 In order to comply with this requirement, the Offeror shall complete the Certificate of Quotation Validity set forth in Annex B-3. Quotations offering less than the period of time referred to above for acceptance by the Purchaser may be determined to be non-compliant.

2.11.3 The Purchaser will endeavour to complete the evaluation and make an award within the period referred to above. However, should that period of time prove insufficient to render an award, the Purchaser reserves the right to request an extension of the period of validity of all quotations which remain under consideration for award.

2.11.4 Upon notification by the Purchaser of such a request for a time extension, the Offerors shall have the right to:

(a) accept this extension of time in which case Offerors shall be bound by the terms of their quotation for the extended period of time and the Certificate of Quotation Validity extended accordingly; or

(b) refuse this extension of time and withdraw the quotation without penalty.

2.11.5 Offerors shall not have the right to modify their quotations due to a Purchaser request for extension of the quotation validity unless expressly stated in such request.

2.12 CANCELLATION OF REQUEST FOR QUOTATIONS

2.12.1 The Purchaser may cancel, suspend or withdraw for re-issue at a later date this RFQ at any time prior to Contract award. No legal liability on the part of the Purchaser for payment of any sort shall arise and in no event will any Offeror have cause for action against the Purchaser for the recovery of costs incurred in connection with preparation and submission of a quotation in response to this RFQ.

2.13 ELECTRONIC TRANSMISSION OF INFORMATION AND DATA

2.13.1 The Purchaser will endeavour to communicate answers to requests for clarification and amendments to this RFQ to the prospective Offerors by the fastest means possible, including the use of e-mail where the firms have forwarded the necessary address information. All Offerors are consequently strongly encouraged to provide

accurate email addressing information and notify the Purchaser at the earliest practicable date should any changes occur.

2.13.2 Offerors are cautioned that the Purchaser will rely exclusively on electronic mail to manage all correspondence, amendments, etc., related to this RFQ.

2.13.3 Offerors are cautioned that electronic transmission of documentation which contains classified information is not permissible.

2.14 SUPPLEMENTAL AGREEMENTS

2.14.1 Offerors are required, in accordance with the certificate at Annex B-7 of these Instructions to Offerors, to disclose any prospective Supplemental Agreements that are required by national governments to be executed by NATO/ NCI AGENCY as a condition of Contract performance.

2.14.2 Supplemental Agreements are typically associated with, but not necessarily limited to, national export control regulations, technology transfer restrictions and end user agreements or undertakings.

2.14.3 Offerors are cautioned that failure to provide full disclosure of the anticipated requirements and the terms thereof, to the best of the Offeror's knowledge and experience, may result in the Purchaser withholding award of the Contract or cancelling an executed Contract if it is discovered that the terms of such Supplemental Agreements contradict salient conditions of the Prospective Contract to the extent that either key objectives cannot be accomplished or basic Contract principles and Purchaser rights have been abridged.

2.15 MANDATORY QUALITY ASSURANCE AND QUALITY CONTROL STANDARDS

2.15.1 Offerors are requested to note that, in accordance with the Certificate at Annex B-11 hereto, Offerors shall provide documentary evidence that the Offeror possesses a current certification that is compliant with the requirements of Allied Quality Assurance Publication (AQAP) 2110, ISO 9001:2015, or an equivalent QA/QC regime.

2.15.2 Offerors shall further demonstrate that such regime is applied within the Offeror's internal organisation, as well as extended to its relationships with Subcontractors.

2.15.3 If the Offeror is offering a QA/QC regime that is claimed to be equivalent to AQAP 2110 or ISO 9001:2015, the burden of proof of such equivalency shall be on the Offeror and such evidence of equivalency shall be submitted with the Certificate at Annex B-11 in the Bid Administration Package.

2.15.4 Failure to execute this Certificate, or failure to provide documentary evidence of compliance with this requirement may result in a determination of non-compliance for the submitted Bid.

2.16 NOTICE TO OFFERORS OF CONTRACT DISTRIBUTION AND DISCLOSURE OF INFORMATION

2.16.1 The resulting Contract is subject to release to the applicable NATO Resource Committee through the NATO Office of Resources (NOR).

2.16.2 The resulting Contract may be subject to release to (i) NATO Resource Committees for audit purposes (including audits carried out using third party companies- See Book II, Special Provisions Article entitled, “Notice of Authorized Disclosure of Information for Mandated NATO Third Party Audits by Resource Committees”; and (ii) to the customer holding a Service Level Agreement with the Agency related to this requirement, upon request from that customer.

SECTION III - BID PREPARATION INSTRUCTIONS

3.1 GENERAL

3.1.1 Offerors shall prepare and submit their quotation in accordance with the instructions set forth herein. Failure to comply with these instructions may result in the Offer being declared non-compliant.

3.1.2 Offerors shall prepare their quotation in three (3) parts:

(a) Administrative Package (Part I): Electronic Submission

(b) Price Proposal (Part II): Electronic Submission

(c) Technical Proposal (Part III): Electronic Submission

3.1.3 The specific format for each volume is stated in paragraph 3.2.2

3.1.4 Quotations and all related documentation shall be submitted in the English language.

3.1.5 Offerors shall prepare a complete quotation which comprehensively addresses all requirements stated herein. The quotation shall demonstrate the Offeror's understanding of the RFQ and his ability to provide all the deliverables and services listed in the Bidding Sheets (Annex C). Quotations which are not complete will be declared non-compliant.

3.1.6 The Offeror **shall not restate** the RFQ requirements in confirmatory terms only. The Offeror must clearly describe what is being offered and how the Offeror will meet all RFQ requirements. Statements in confirmatory terms will only be sufficient for determining the bid to be non-compliant.

3.1.7 Partial quotations and or/ quotations containing conditional statements will be declared non-compliant.

3.1.8 If no specific format has been established for electronic versions, Offerors shall deliver documentation in an electronic format which is best suited for review and maintenance by the Purchaser (e.g., Project Master Schedule in MS Project format, Project Highlight Reports in MS Word).

3.1.9 All documentation submitted as part of the Quotation shall be classified no higher than “NATO UNCLASSIFIED”.

3.2 BID PACKAGE AND MARKING

3.2.1 The complete Quotation shall consist of three distinct and separated volumes each of which will be sent as an individual electronic submission as described in the following subparagraphs. Detailed requirements for the structure and content of each of these packages are contained in these Bidding Instructions.

3.2.2 Offerors shall prepare their quotation in 3 volumes in the following quantities and with the following specifications:

Part	Format and Quantity Details

I: Administration Package	<u>One (1) Email no larger than 20MB total and without password protection including:</u> • Email subject line: *RFQ-CO-115363-PRT-TDCIS [Company Name] Part I - Admin* • One (1) Scanned PDF copy of the certificates with physical or electronic signatures of the prescribed certifications ➢ All of the required contents are outlined in Section 3.3
II: Price Proposal	<u>One (1) Email no larger than 20MB total and without password protection including:</u> • Email subject line: *RFQ-CO-115363-PRT-TDCIS [Company Name] Part II - Price* • One (1) electronic copy in Microsoft Excel (readable and searchable) of the completed Bidding Sheets • One (1) PDF copy with physical or electronic signatures of the completed Bidding Sheets as detailed in Section 3.4
III: Technical Proposal	One (1) Email no larger than 20MB total and without password protection including: • Email subject line: RFQ-CO-115363-PRT-TDCIS [Company Name] Part III - Technical • The Technical Proposal shall be self-contained as a separate electronic file, named as described in Section 3.5

3.2.2.1 "Company Name" – In the subject line of the email, and in the names of the individual files shall be abbreviated to no more than 10 characters. For example, if a company's name is "Computer and Technology Research Company", the company name could be shorted to "CTRC" in the email and file names.

3.2.2.2 Multiple emails may be submitted for each part if the content of the file(s) is larger than 20MB per email submission; however, each file must clearly identify the part number and the sequence to which it relates. For example: *RFQ-CO-115363-PRT-TDCIS [Company Name] Part III - Technical Part 1 of 4; RFQ-CO-115363-PRT-TDCIS [Company Name] Part III - Technical Part 2 of 4 and so forth*.

3.2.2.3 Acceptable File Formats:

3.2.2.3.1 Where no specific format is mandated, electronic quotation documentation shall be delivered in PDF format without limitations of printing or "copy & paste". The Purchaser reserves the right to request native formats electronic files of the proposal to facilitate the evaluation process.

3.2.2.3.2 The Purchaser does NOT accept hard copies of bids CDs, thumb drives, <u>or zip files.</u>

3.2.3 No information disclosing or contributing to disclose the quotation price shall be made part of the Technical Proposal. Failure to abide to this prescription shall result in the quotation being declared non-compliant.

3.2.4 As part of the Technical Proposal, the Offeror shall provide One (1) unpriced copy of the Bidding Sheets detailing the breakdown of labour, hours and equipment.

3.2.5 Documents submitted in accordance with paragraph Section 3.2 above shall be classified no higher than "NATO UNCLASSIFIED" material.

3.2.6 Partial Quotations on a Schedule and/or Quotations containing conditional statements will be declared non-compliant.

3.3 PREPARATION OF THE ADMINISTRATIVE ENVELOPE (VOLUME I)

3.3.1 The Bid Administrative Package shall include in accordance with Section 3.2.2 Part I one email comprised of the required documents to the Purchaser. No information disclosing or contributing to disclose the quotation price shall be made part of the Administration Volume. Failure to abide to this prescription shall result in the quotation being declared non-compliant.

3.3.2 Volume 1 shall include the certificates set forth in the Annex to these Bidding Instructions, signed in the original by an authorised representative of the Offeror. The text of the certificates must not be altered in any way. The certificates are as follows:

B-1: Certificate of Legal Name of Offeror

B-2: Certificate of Independent Determination

B-3: Certificate of Quotation Validity

B-4: Certificate of Understanding

B-5: Certificate of Exclusion of Taxes, Duties and Charges

B-6: Acknowledgement of Receipt of RFQ Amendments (if applicable)

B-7: Disclosure of Requirements for NCI Agency Execution of Supplemental Agreements

B-8: Certification of NATO Member Country of Origin of Delivered Equipment, Services, Materials and Intellectual Property Rights

B-9: Comprehension and Acceptance of Contract Special Provisions and General Provisions.

B-10: List of Prospective Sub-Contractors / Consortium members

B-11: Certificate of AQAP 2110 or ISO-9001: 2015 Compliance. The Offeror shall attach a copy of the company's AQAP 2110 certification or ISO 9001: 2015 compliance.

B-12: List Of Proposed Key Personnel With Security Clearance Information

B-13: Disclosure of Involvement of Former NCI Agency Employment

B-14: Offeror Background IPR

B-15: List of Subcontractor IPR

3.3.2.1 **Concerning Certificate B-6**, taking into account that Amendment 7 to the RFQ replaces the RFQ and its Amendments 1 to 6 in its entirety, the acknowledgement of Amendment 7 and from there consecutive Amendments is sufficient.

3.3.2.2 **Concerning Certificate B-7**, Disclosure of Requirements for NCI Agency Execution of Supplemental Agreements, Offerors shall note especially the following:

3.3.2.2.1 If supplemental agreements, such as End-User Certificates or Technical Assistance Agreements, are required by national regulations, these must be submitted with the Offerors quote. Supplemental agreements submitted after the Quotation Closing Date shall not be considered.

3.3.2.2.2 The terms of supplemental agreements, if necessary, are the Offerors / Contractors responsibility and shall be totally consistent with the terms of the (Prospective) Contract, and shall not duplicate, negate, or further interpret any provisions of this Contract. The terms of the (Prospective) Contract shall take precedence over the Supplemental Agreement.

3.3.2.2.3 A problem with the supplemental agreement in any of the areas mentioned previously in this provision may result in a determination that the Quotation is not compliant with the terms of the RFQ, and in rejection of the Quotation, or termination for default of the Contract if the supplemental agreement is submitted after Contract award.

3.3.2.3 **Concerning Certificate B-10,** the Contractor shall identify by name, project role, and country of origin, all sub-contractors whose sub-contract value is expected to equal or exceed EUR 125,000, if any. A list of consortium members shall also be completed and included. If there are no sub-contractors/consortium members involved, the Offeror shall state this separately. The subcontractors listed in this certificate shall be traceable in the Bidding Sheets.

3.3.2.4 **Concerning Certificate B-11** Offerors shall provide documentary evidence that the Offeror possesses a current certification that is compliant with the requirements of Allied Quality Assurance Publication (AQAP) 2110, ISO 9001:2015, or an equivalent QA/QC regime.

3.3.2.4.1 If the Offeror is presenting a QA/QC regime that is claimed to be equivalent to AQAP 2110 or ISO 9001:2015, the burden of proof of such equivalency shall be on the Offeror and such evidence of equivalency shall be submitted with the Certificate at Annex B-11 in the Administration Package.

3.3.2.4.2 Failure to execute this Certificate, or failure to provide documentary evidence of compliance with this requirement may result in a determination of a non-compliant quotation.

3.3.3 The Offeror shall send Volume I - Administrative Envelope to the Purchaser's point of contact specified in paragraph 2.6.2.1 above via email.

3.4 PREPARATION OF THE PRICE QUOTATION (VOLUME II)

3.4.1 Offerors shall prepare their Price Proposal in accordance with Section 3.2.2 Part II by submitting one email containing the completed electronic copy of the Bidding Sheets (Excel) provided with this RFQ under Book I, Annex C and D. The Offeror shall

propose an accurate and complete price quotation in completing the Bidding Sheets as defined in these Bidding Instructions.

3.4.2 No alteration of the form and pre-filled content of the Bidding Sheets is allowed, unless otherwise specified. The structure of the Bidding Sheets shall not be changed, other than as indicated elsewhere, nor should any quantity or item description in the Bidding Sheets. The currency(ies) of each Contract Line Item and sub-item shall be shown. The prices provided shall be intended as the comprehensive total price offered for the fulfilment of all requirements as expressed in the RFQ documentation including but not limited to those expressed in the SOW.

3.4.3 When completing the Bidding Sheets the Offeror shall insert information in all yellow cells of the Bidding Sheets and complete the Pricing Summary as instructed. A price for each specified element needs to be supplied on each CLIN. Prices should not be grouped. The prices and quantities entered on the document shall reflect the total items required to meet the contractual requirements. The total price shall be indicated in the appropriate columns and in the currency quoted. If the price of a line item is expressed in different currencies, these shall be identified, and there shall be as many totals on that line item as there are currencies; unless Offerors choose to use one bidding sheet per currency. In preparing the Price Quotation, Offerors shall ensure that the prices of the Sub-items total the price of the major item of which they constitute a part.

3.4.4 Offerors shall furnish Firm Fixed Prices for all required items in accordance with the format set forth in the Instructions for preparation of the Bidding Sheets. The detailed tabs (Labour, Other Material, Travel and ODC) and the “Batch #1”, “Batch #2” and “Batch #3” tabs need to match the CLIN Summary and Offer Summary tabs.

3.4.5 Offerors are responsible for the accuracy of their Price Quotations. Price Quotations that have apparent computational errors may have such errors resolved in the Purchaser’s favour or, in the case of gross omissions, inconsistencies or errors, may be determined to be non-compliant. In the case of inconsistencies between the electronic version of the Bidding Sheets and the PDF of the Bidding Sheets, the “hard copy” will be considered by the Purchaser to have precedence over the electronic version.

3.4.6 Offerors shall furnish Firm Fixed Prices for all CLINs to include Options as defined in the SOW. Purchaser evaluation of the submitted bids will be on the basis of the complete submission including administrative, price and technical components for all CLINs. The Contract will be awarded for CLINs 1 through 9 as the basic contract (base contract) and the work defined for CLIN 10 (evaluated option) shall be evaluated; CLIN 11 is a non-evaluated Option. These evaluated / non-evaluated options may be exercised by the Purchaser, at the sole discretion of the Purchaser as described in the Book II Special and General Provisions. The Purchaser’s decision to exercise any Options will take into consideration the availability of the required funding.

3.4.7 Offered prices shall not be “conditional" in nature. Any comments supplied in the Bidding Sheets or in any part of the bid package which are conditional in nature, relative to the offered prices may result in a determination that the bid is non-compliant.

3.4.8 Offeror shall quote in their own national currency or in EUR, the host nation currency. Offeror may also submit Quotations in multiple currencies including other NATO member states' currencies under the following conditions:

(a) the currency is of a "Participating Country" in the project, and

(b) The Offeror can demonstrate, either through sub-contract arrangements or in its proposed work methodology, that it will have equivalent expenses in that currency. All major sub-contracts and their approximate anticipated value should be listed on a separate sheet and included with the Price Quotation.

3.4.9 The Purchaser, by virtue of its status under the terms of Article IX and X of the Ottawa Agreement, is exempt from all direct taxes (incl. VAT) and all customs duties on merchandise imported or exported. The Contractor, therefore, shall certify that the prices stipulated in this Contract do not include amounts to cover such direct taxes or customs duties.

3.4.10 The Contractor shall be responsible for ensuring that its respective Sub-contractors are aware that the Purchaser is exempt from taxes and customs duties. The Contractor (and its respective Sub-contractors) shall be responsible for complying with all applicable national and local legal and administrative procedures to ensure that authorities do not attempt to assess taxes and customs duties on goods and property imported or exported through NATO member nation frontiers under this Contract nor assess direct taxation (VAT) on goods sold to the NCI Agency under this Contract. Offerors are reminded of the requirement to complete the certification to this effect in Annex B-5.

3.4.11 Unless otherwise specified in the instructions for the preparation of bidding sheets, all prices quoted in the proposal shall be DDP (Delivered Duty Paid) to specified destination, in accordance with the International Chamber of Commerce INCOTERMS 2020 and shall also cover all packaging, packing, preservation, insurance and transportation charges. Prices quoted shall include all costs for items supplied and delivered to final destination.

3.4.12 The Offeror’s attention is directed to the fact that Price Quotation shall contain no document and/or information other than the priced copies of the Bidding Sheets. Any other document of a contractual or technical nature will not be considered for evaluation and may be cause for a determination of non-compliance by the Purchaser.

3.4.13 The Offeror shall furnish Firm Fixed Price quotations, for all proposed items. Partial quotations shall be rejected.

3.4.14 The Offeror understands that there is no obligation under this Contract for the Purchaser to exercise an optional increase of the quantities set forth in any line items, and that the Purchaser bears no liability should it decide not to exercise such Option. Furthermore, the Purchaser reserves the right to order another contractor through a new contract with other conditions for the additional quantities of any line item it might need.

3.4.15 The Contractor shall be liable for all other taxes, assessments, fees, licences, administrative charges or other Government assessments or charges which are applicable to the performance of this Contract. It is the Contractor's responsibility to inform itself of its liability in each country where such liability may arise.

3.4.16 Price Proposals exceeding the deadlines for delivery and completion of works indicated in the Schedule of Supplies and Services may be declared non-compliant.

3.4.17 The Offeror shall identify for each CLIN all significant sub-contractors and provide required information about their prospective sub-contractors whose estimated value of the subcontract is expected to equal or exceed EUR 125,000 using the "List of Prospective Sub-Contractors" form attached to Book I Annex B-10.

3.4.18 The Offeror shall separately price the cost of Warranty. Zero values or the statement that the Quotation price includes the cost of warranty are not allowed.

3.4.19 All prices bid shall be clearly traceable in the detailed bidding sheets.

3.4.20 Any adjustment or discount to prices should be clearly traceable to the lowest level of breakdown in the bidding sheets and should not be aggregated or summed. Any lack of clarity or traceability may render the bid non-compliant

3.4.21 The Offeror shall send Volume II - Pricing Envelope to the Purchaser's point of contact specified in paragraph 2.6.2.1 above via email.

3.5 PREPARATION OF THE TECHNICAL PROPOSAL (VOLUME III)

3.5.1 Offerors shall submit their Technical Proposal in accordance to Section 3.2.2 Part III an electronic package with separate documents in PDF or MS Office formats as required, containing all the information addressing the technical specifications and requirements of the stated in Sections 3.5.2– 3.5.9. The Technical Proposal shall have a confirmation that all requirements in the SOW, Book II Part IV are included in the proposed solution.

3.5.2 The Technical Proposal package shall include the following:

3.5.2.1 Table of Contents. The Offeror shall compile a detailed Table of Contents which lists not only section headings but also major sub-sections, and topic headings required set forth in these Instructions or implicit in the organisation of the Technical Proposal.

3.5.2.2 Cross-Reference/Compliance Table. The Offeror shall include the completed Technical Proposal Cross-Reference Table at Annex E of Book I. The Offeror shall complete the Column marked "QUOTATION REFERENCE" of the Table, citing the appropriate section of the Technical Proposal that corresponds to each paragraph of these Instructions for the Preparation of the Technical Proposal. The completed Table serves as an index for the Purchaser's Technical Evaluation Panel and also as an aide memoire to the Offeror to ensure that all the required information has been provided in the Technical Proposal.

3.5.3 Section 1: Project Management Documentation (PMP and PIP)

3.5.3.1 Project Overview. The Offeror shall provide a Project Overview which shall provide an executive summary overview of the offered capability. The Project Overview shall also summarise the main features of each of the sections of the Technical Proposal and shall indicate in broad detail how and in which geographic regions the Project's phases as illustrated in Appendix A of the SoW will be executed during the full lifetime of the Project.

3.5.3.2 The Offeror shall submit a preliminary Project Management Plan (PMP) in accordance with the requirements of Section 3.2.1 of the SoW (Book II Part IV) that defines how the Offorer intends to manage this project from contract signature through Final System Acceptance and throughout any warranty periods. The preliminary PMP shall consider all aspects of project management and control and demonstrate how all the critical dates defined in the contract will be met. The

preliminary PMP with all appendices shall be a minimum of 20 pages but not to exceed 35 pages, and shall have a GANNT Chart as an Appendix that maps to both the Offerers PMS and the Bidding Sheet CLINs.

3.5.3.3 The Offeror shall submit a preliminary Project Implementation Plan (PIP) in accordance with the requirements of Section 3.2.2 of the Statement Of Work (SOW) (Book II Part IV), which clearly describes how the Offeror intends to implement the totality of the project in compliance with the contractual requirements and the following specific requirements:

3.5.3.3.1 The Offeror shall provide a statement assuring that all requirements shall be met for the Site Survey and Site Survey Report in accordance to the requirements stated in Sections 2.5.1, 2.7.2, and 4.10 of the SoW (Book II Part IV). The site survey shall be performed according to the Schedule of Supplies and Services after the Effective Date of the Contract.

3.5.3.3.2 The preliminary PIP shall include a preliminary Project Master Schedule (PMS) in accordance to the requirements stated in Section 3.2.2.3 of the SoW (Book II Part IV) that shall contain all contract events and milestones for the Project. The preliminary PMS shall show all contractual deliverables, their delivery dates, and the tasks associated with them. The preliminary PMS shall for each task identify the start and finish dates, duration, predecessors, constraints, and resources. The PMS shall provide network, milestone, and Gantt views, and identify the critical path for the overall project.

3.5.3.3.3 The preliminary PIP shall include required security accreditation documents as described in Section 9 of the Sow.

3.5.3.4 Project Personnel. The Offeror shall provide a curriculum vitae for the personnel proposed for this project listed in Appendix D Key Personnel Requirements of the SoW (Book I Part IV). The Offeror shall provide a narrative describing the rationale for the selection of these individuals for these posts and provide detailed descriptions of the relevant experience of the individuals and security clearance information. This subsection shall also describe the authority and responsibility (and the limits) of the Project Manager within the overall corporate organisation, including the circumstances at which the Project Manager must refer decision making authority to the next level of Corporate management.

3.5.4 Section 2: Engineering

3.5.4.1 The Offeror shall provide a draft System Design Plan (SDP), as detailed in Section 2.1 (WP1) of the SoW. The SDP shall have minimum of 10 pages but not more than 20 pages.

3.5.4.2 Offerors shall provide an initial draft High Level Design (HLD), as detailed Section 2.1.5.1 of the SOW. The HLD shall address all HLD requirements as detailed in the SOW. In addition that HLD shall:

3.5.4.3 Provide an initial draft demonstrating an understanding of the design objective, constraints and the need to integrate PFE to the system design and in turn integrate the system with external PFE connectivity;

~~3.5.4.4 Provide an initial draft for system Low Level Design (LLD) on:~~

~~a. Access Node;~~
~~b. Battalion Node;~~
~~c. Company Communication Node;~~

~~d. Transit Node;~~
~~e. Rear Link Node;~~
~~f. GAR-T Relay;~~
~~g. Radio Access Point.~~
~~h. NS Kit~~
~~i. pooled appliances~~
~~j. Describe the Offerors intent for Interface Control Documentation (ICD);~~

3.5.5 Offerors shall provide an initial draft detailed description of how they intend to Build and Provide Production Units, as detailed in Section 2.2 (WP2) and Section 2.6 (WP6) of the SoW. The Offeror shall describe the full end to end processes they intend for:

a. Batch #1 First Article Systems;

b. Batch #2 and #3 (Option) Production Units.

3.5.6 Section 3: Supportability

3.5.6.1 Offerors shall provide a preliminary **Integrated Product Support Plan (IPSP)**, as detailed in the SOW section 4.1;

3.5.6.2 Offerors shall provide a **Product Support Case** to cover in one document the preliminary version for the following topics:

3.5.6.2.1 **Reliability Availability Maintainability Testability (RAMT)** Case Report, as detailed in the SOW section 4.2;

3.5.6.2.2 **Failure Mode Effects and Criticality Analysis (FMECA)**, as detailed in the SOW section 4.3;

3.5.6.2.3 **Maintenance Task Analysis (MTA)**, as detailed in the SOW section 4.4;

3.5.6.2.4 **Level of Repair Analysis (LORA)**, as detailed in the SOW section 4.5;

3.5.6.2.5 **Obsolescence Report**, as detailed in the SOW section 4.6;

3.5.6.2.6 **Warranty Report**, as detailed in the SOW section 4.11;

3.5.6.3 Offerors shall provide a preliminary **Training Plan (TNRP)**, as detailed in the SOW section 2.4.2;

3.5.6.4 Offerors shall provide a preliminary **In-Service Support Plan (ISSP)**, as detailed in the SOW section 4.12;

3.5.6.5 Offerors shall provide a preliminary **System Safety Program Plan (SSPP)**, as detailed in the SOW section 4.13;

3.5.6.6 Offerors shall provide a preliminary **Configuration Management Plan (CMP)** as detailed in the SOW Section 6.1;

3.5.6.7 Offerors shall provide a preliminary **Quality Assurance Plan (QAP)** as detailed in SOW Section 7.4.

3.5.7 Section 4: Testing and Acceptance

3.5.7.1 The Offeror shall in this section demonstrate how it can meet the TDCIS capability testing requirements and conducting all related activities. This includes the development of all test documentation required, the conduct of all testing and the evaluation and documentation of the tests results as specified in Section 8 of the SoW.

3.5.8 Section 5: Security Accreditation

3.5.8.1 The Offeror shall provide a draft Security Accreditation Plan (SAP) describing the steps to be taken to achieve security accreditation for TDCIS addressing all points under SEC-18 of SOW Section 9.4.

3.5.8.2 The Offeror shall provide an initial draft design proposal to be used as basis for the initial CIS Description, containing the most important planned elements such as hardware typology, SW typology, data flows, general purpose/functions, and initial system diagram(s) in accordance with SOW Section 9.5.

3.5.9 Section 6: Manufacturers Datasheets

3.5.9.1 The Offeror shall provide as part of the System Design Plan (SDP) under section 2.1.2 of the SoW, manufacturers datasheets for all equipment, demonstrating compliance with the requirements stated in the SRS, Annex A of the SoW.

3.5.9.2 The Offeror shall send Volume III – Technical Envelope to the Purchaser's point of contact specified in paragraph 2.6.2.1 above via email.

SECTION IV - QUOTATION EVALUATION

4.1 GENERAL

4.1.1 The evaluation of Quotations will be made by the Purchaser solely on the basis of the requirements in this RFQ.

4.1.2 The evaluation of Quotations and the determination as to the compliance or technical adequacy of the supplies and services offered will be based only on that information furnished by the Offeror and contained in its Quotation. The Purchaser shall not be responsible for locating or securing any information which is not included in the Quotation.

4.1.3 To ensure that sufficient information is available, the Offeror shall furnish with its Quotation all information appropriate to provide a complete description of the work which will be performed and/or the supplies to be delivered. The information provided shall be to a level of detail necessary for the Purchaser to determine exactly what the Offeror proposes to furnish and whether the offer meets the technical, administrative and contractual requirements of this RFQ. Significant omissions and/or cursory submissions may result in a determination of non-compliance without recourse to further clarification.

4.1.4 During the evaluation, the Purchaser may request clarification of the Quotation from the Offeror, and the Offeror shall provide sufficient detailed information in connection with such requests as to permit the Purchaser to make a final determination based upon the facts. The purpose of such clarifications will be to resolve ambiguities in the Quotation and to permit the Offeror to state its intentions regarding certain statements contained therein. The Offeror is not permitted any cardinal alteration of the Quotation regarding technical matters and shall not make any change to its price quotation at any time nor restate the Statement of Work (SOW).

4.1.5 The Offeror's prompt response to the Purchaser's RFQ clarification requests is important and therefore failure to provide the requested clarifications within the time-limits set forth in the specific Clarification Requests may cause the Quotation to be deemed non-compliant.

4.1.6 The evaluation will be conducted in accordance with the Use of Basic Ordering Agreements (BOAs) by the NATO Communications and Information Agency (NCI Agency) set forth in the NATO document AC/4-D(2019)0004 (INV).

4.1.7 The administrative compliance of the Quotations will be evaluated first. Quotations that are declared administratively non-compliant may be rejected without further evaluation. Following evaluation for administrative compliance, evaluation will be carried out in the following two areas: Volume II - Price, Volume III- Technical.

4.1.8 All administrative compliant Quotations will be reviewed for price compliancy and then technical compliance. The Contract(s) resulting from this RFQ will be awarded to the Offeror whose offer, as evaluated by the Purchaser, is the lowest priced, technically compliant quotation and in compliance with the requirements of this RFQ.

4.2 ADMINISTRATIVE CRITERIA

4.2.1 Prior to commencement of the Price and Technical evaluation, Quotations will be reviewed for compliance with the Quotation Submission Requirements of this RFQ. These are as follows:

(a) The Quotation was received by the Quotation Closing Date and Time,

(b) The Quotation was packaged and marked properly (paragraphs 3.3.1 to 3.3.3),

(c) The Administrative Package contains all Certificates at Annex B hereto (paragraph 3.3.2).

4.2.2 A Quotation that fails to conform to the above requirements may be declared non-compliant and may not be evaluated further by the Purchaser.

4.2.3 If it is discovered, during either the Price or Technical evaluation, that the Offeror has taken exception to the Terms and Conditions of the Prospective Contract, or has qualified and/or otherwise conditioned its Quotation on a modification or alteration of the Terms and Conditions or the language of the Statement of Work, the Offeror may be determined to have submitted a non-compliant Quotation.

4.3 PRICE CRITERIA

4.3.1 The Offeror's Price Quotation will be first assessed for compliance against the following standards:

4.3.1.1 The Price Quotation meets the requirements for preparation and submission of the Price Quotation set forth in the Quotation Preparation Section and the Instructions for preparation of the Bidding Sheets (Annex C) in particular:

a. The Offeror has furnished Firm Fixed Prices for all items listed. Not having provided a price for all items as required per the Bidding sheets, i.e. to fill out **all** yellow fields, may render the Quotation non-compliant. Prices cannot be embedded/included in other prices.

b. All pricing data, i.e., quantities, unit prices, has been provided as reflected in the Bidding Sheets.

c. Quotation prices include all costs for items supplied, delivered, and supported.

d. All prices have been accurately entered into appropriate columns and accurately totalled.

e. The Offeror has provided accurate unit prices (where required) and a total price for each line item.

f. The Offeror has provided accurate unit prices and a total price of each of the sub-items it added (if any).

g. The currency of all line items has been clearly indicated.

h. The Offeror has quoted in its own national currency or in the Host Nation currency, Euros. Where multiple currencies including other NATO member states' currencies are quoted, the conditions of Section III, paragraph 3.4.8 shall be met.

i. The Offeror has indicated that in accordance with the treaties governing the terms of business with NATO, it excluded from its prices all taxes, duties and customs charges from which the Purchaser has been exempted.

j. Price quotes for each individual item(s), and totalled prices are accurate and realistic (based on historic data, and/or market and competitive trends in the specified industrial sector(s)).

k. Detailed pricing information has been provided and is adequate, accurate, traceable, and complete.

l. The detailed tabs (Labour, Other Material, Travel and ODC) and the "Batch #1", "Batch #2" and "Batch #3" tabs shall match the CLIN Summary and Offer Summary tabs.

4.3.1.2 The Price Quotation meets requirements for price realism as described below in paragraph 4.3.4.

4.3.1.3 A Quotation which fails to meet the compliance standards defined in this section may be declared non-compliant and may not be evaluated further by the Purchaser.

4.3.2 Basis of Price Comparison to determine lowest priced, compliant Quotation

4.3.2.1 The Purchaser will convert all prices quoted into EURO for purposes of comparison and computation of price scores. The exchange rate to be utilised by the Purchaser will be the average of the official buying and selling rates of the European Central Bank at close of business on the last working day preceding the Quotation Closing Date.

4.3.2.2 The price comparison will be based on the Offered Grand Total Firm Fixed Price which includes all CLINs in the Bidding Sheets including all evaluated Option prices. Offerors who do not provide a quote for each Option (evaluated and non-evaluated) shall be deemed non-compliant (partial bidding is not authorized).

4.3.2.3 The Options referred to in Section 1.11 of the SOW and the Bidding Sheets are requirements which are not within the received authorization and are included as evaluated Options for CLINs 10; and CLIN 11 as a non-evaluated Option. Offerors who do not provide a quote for each Option shall be deemed non-compliant. These are being incorporated as Indefinite Delivery Options addressing special requirements the fulfilment of which is subject to express authorization to be provided by the relevant NATO authorities. Therefore, at the time of the signature of any Contract resulting from this RFQ, no obligation for the parties will arise with respect to the performance and/or payments associated with tasks and deliverables which are made part of any Option. The obligation of the parties with respect to these Options is subject to the authorization by the relevant NATO authorities and the unilateral express exercise of the Options by the Purchaser. The Purchaser reserves the right to exercise any or all Options at any point during the Contract including at Contract Award.

4.3.3 Inconsistencies and discrepancies in Quotation price quotation

4.3.3.1 In case of inconsistencies, discrepancies and/or contradictory pricing information in the different parts of the Quotation price submission and notwithstanding the possibility for the Purchaser, at its sole discretion to obtain clarification from the Offeror, for the purpose of determining the total price of the Quotation, the following order of precedence shall apply:

4.3.3.1.1 PDF copy of the completed Bidding Sheets

a. Schedule of Supplies and Services Total to be Evaluated Quotation Price as indicated by the Offeror
b. Total of the Quotation calculated from the indicated Total Prices(s) indicated per CLIN(s)

4.3.3.1.2 Microsoft Excel copy of the completed Bidding Sheets

a. Schedule of Supplies and Services Total to be Evaluated Quotation Price as indicated by the Offeror
b. Total of the Quotation calculated from the indicated Total Prices(s) indicated per CLIN(s)

4.3.4 Price Realism

4.3.4.1 Should an Offeror submit a price quotation that it is not a realistic reflection of the objective cost of performance of the associated technical proposal, this may be considered by the Purchaser to be an unrealistic offer and may be determined to be non-compliant.

4.3.4.2 Indicators of an unrealistic Quotation may include, but are not limited to:

a. Labour Costs that, when amortised over the expected or proposed direct labour hours, indicate average labour rates far below those prevailing in the Bidder locality for the types of labour proposed.

b. Direct Material costs that are considered to be too low for the amounts and types of material proposed, based on prevailing market prices for such material.

c. Numerous Line Item prices for supplies and services that are provided at no cost or at nominal prices.

4.3.4.3 If the Purchaser has reason to suspect that a Offeror has artificially debased its prices in order to secure contract award, the Purchaser will request clarification of the Quotation in this regard and the Offeror shall provide explanation on one of the following basis:

a. An error was made in the preparation of the Price Quotation. In such a case, the Offeror must document the nature of the error and show background documentation concerning the preparation of the Price Quotation that makes a convincing case that a mistake was made by the Offeror. In such a case, the Offeror shall petition the Purchaser to both remain in the competition and accept the Contract at the offered price, or to withdraw from the competition.

b. The Offeror has a competitive advantage due to prior experience or industrial/technological processes that demonstrably reduce the costs of Offeror

performance and therefore the price offered is realistic. Such an argument must support the technical proposal offered and convincingly and objectively describe the competitive advantage and the net savings achieved by this advantage over standard market practices and technology.

c. The Offeror recognises that the submitted Price Quotation is unrealistically low compared to its cost of performance and, for business reasons, the Offeror is willing to absorb such a loss. Such a statement can only be made by the head of the business unit submitting the Quotation and will normally be made at the level of Chief Operating Officer or Chief Executive Officer. In such a case, the Offeror shall estimate the potential loss and show that the financial resources of the Offeror are adequate to withstand such reduction in revenue.

4.3.4.4 If an Offeror fails to submit a comprehensive and compelling response on one of the basis above, the Purchaser may determine the Quotation submitted as non-compliant. If the Offeror responds on the basis of the above and requests to withdraw from the competition, the Purchaser may, depending on the nature and gravity of the mistake, allow the Offeror to withdraw.

4.3.4.5 If the Purchaser accepts the Offeror's explanation of mistake in Paragraph 4.3.4.3 (a) and allows the Offeror to accept the Contract at the offered price, or the Purchaser accepts the Offeror's explanation pursuant to paragraph 4.3.4.3(c) above, the Offeror shall agree that the supporting pricing data submitted with its Quotation will be incorporated by reference in the resultant Contract. The Offeror shall agree as a condition of Contract signature, that the pricing data will be the basis of determining fair and reasonable pricing for all subsequent negotiations for modifications of or additions to the Contract and that no revisions of proposed prices will be made.

4.3.4.6 If the Offeror presents a convincing rationale pursuant to paragraph (b) above, no additional action will be warranted. The Purchaser, however, reserves its right to reject such an argument if the rationale is not compelling or capable of objective analysis. In such a case the Quotation may be determined to be non-compliant.

4.4 TECHNICAL CRITERIA

4.4.1 Upon determination of the lowest-priced Quotation as described above, the Quotation shall be evaluated to confirm compliance with the following technical criteria associated with the respective sections of the Technical Proposal.

4.4.2 Technical Proposal

4.4.2.1 The Offeror shall have provided a Technical Proposal which includes all of information required in Sections 3.5.1 – 3.5.9.

4.4.3 Table of Contents

4.4.3.1 Offeror shall have compiled a detailed Table of Contents which lists not only section headings but also major sub-sections, and topic headings required set forth in these Instructions or implicit in the organisation of the Technical Proposal in accordance to Section 3.5.2.1 of Book I.

4.4.4 Technical Proposal Cross Reference Matrix Table

4.4.4.1 The Offeror shall have included the completed Technical Proposal Cross-Reference Table at Annex E of Book I. The Offeror shall complete the Column marked "QUOTATION REFERENCE" of the Table, citing the appropriate section of the Technical Proposal that corresponds to each paragraph of these Instructions for the Preparation of the Technical Proposal. The completed Table serves as an index for the Purchaser's Technical Evaluation Panel and also as an aide memoire to the Offeror to ensure that all the required information has been provided in the Technical Proposal in accordance to Section 3.5.2.2 of Book I.

4.4.5 Section 1: Project Management Documentation (PMP and PIP)

4.4.5.1 Project Overview. The Offeror shall have provided a Project Overview which shall provide an executive summary overview of the offered capability. The Project Overview shall also summarise the main features of each of the sections of the Technical Proposal and shall indicate in broad detail how and in which geographic regions the Project's phases as illustrated in Appendix A of the SoW will be executed during the full lifetime of the Project.

4.4.5.2 The Offeror shall have submitted a preliminary Project Management Plan (PMP) in accordance with the requirements of Section 3.2.1 of the SoW (Book II Part IV) that defines how the Offorer intends to manage this project from contract signature through Final System Acceptance and throughout any warranty periods. The preliminary PMP shall consider all aspects of project management and control and demonstrate how all the critical dates defined in the contract will be met. The preliminary PMP with all appendices shall be a minimum of 20 pages but not to exceed 35 pages, and shall have a GANNT Chart as an Appendix that maps to both the Offerers PMS and the Bidding Sheet CLINs.

4.4.5.3 The Offeror shall have submitted a preliminary Project Implementation Plan in accordance with the requirements of Section 3.2.2 of the Statement Of Work (SOW) (Book II Part IV), which clearly describes how the Offeror intends to implement the totality of the project in compliance with the contractual requirements and the following specific requirements:

4.4.5.3.1 The Offeror shall have provided a statement assuring that all requirements shall be met for the Site Survey and Site Survey Report in accordance to the requirements stated in Sections 2.5.1, 2.7.2, and 4.10 of the SoW (Book II Part IV).

4.4.5.3.2 The preliminary PIP shall have included a preliminary Project Master Schedule (PMS) in accordance with the requirements of Section 3.2.2.3 of the SoW containing all contract events and milestones for the project. The preliminary PMS shall show all contractual deliverables, delivery dates, and the tasks associated with them. The preliminary PMS shall for each task have identified the start and finish dates, duration, predecessors, constraints, and resources. The preliminary PMS shall have provided network, milestone, and Gantt views, and identify the critical path for the overall project.

4.4.5.3.3 The Offeror shall have identified all activities related to the security accreditation process according Section 9 of the SoW in the preliminary Project Implementation Plan (PIP) and in the Project Management Plan (PMP).

4.4.5.4 The Offeror shall have provided a curriculum vitae for the personnel proposed for this project as identified in the SoW Appendix D. For each role identified (at least

one person per role and a maximum of one role per person), the resumes shall meet or exceed the experience, knowledge and educational criteria stated in the SoW Section 3.1 and Appendix D, Table 3, demonstrating that they have the expected knowledge, capability and experience to meet the requirements of this Contract. The Offeror shall have provided a narrative describing the rationale for the selection of the Project Team for key posts and have provided detailed descriptions of the experience of the individuals in managing similar procurement programmes. This section shall have described the authority and responsibility (and the limits) of the Project Manager within the overall corporate organisation. The narrative must confirm that the Project Manager has access to the corporate resources required to successfully perform the Contract. The Offeror shall include for identified key personnel for this project their security clearance certificate with expiration date of the clearance.

4.4.6 Section 2: Engineering

4.4.6.1 The Offeror shall have provided a draft System Design Plan (SDP) with the information as required and detailed in the SOW 2.1.2 (WP1) and the SDP shall demonstrate compliance with the System Requirements Specification (Annex A of the SoW). The SDP shall be minimum of 10 Pages but not more than 20 pages.

4.4.6.2 The Offeror shall have provided a draft High Level Design (HLD), as detailed Section 2.1.5.1 of the SOW. The HLD shall address all HLD requirements as detailed in the SOW. In addition that HLD shall:

4.4.6.2.1 Be sufficiently detailed to demonstrate an understanding of the design objective, constraints and the need to integrate with PFE and external connectivity;

~~4.4.6.2.2 The Offeror shall have demonstrated their intent for system level Low Level Design (LLD) Documentation and how the LLD's for each of the following shall be presented:~~

~~4.4.6.2.2.1 Access Node;~~

~~4.4.6.2.2.2 Battalion Node;~~

~~4.4.6.2.2.3 Company Communication Node;~~

~~4.4.6.2.2.4 Transit Node;~~

~~4.4.6.2.2.5 Rear Link Node;~~

~~4.4.6.2.2.6 GAR-T Relay;~~

~~4.4.6.2.2.7 Radio Access Point.~~

~~4.4.6.2.2.8 NS Kit~~

~~4.4.6.2.2.9 Pooled Appliances~~

~~4.4.6.2.2.10 Describe the Offerors intent for Interface Control Documentation (ICD) and how these shall map to the LLD, DLD and the Portuguese National Network;~~

4.4.6.2.3 Offerors shall provide a draft detailed description of how they intend to Build and Provide Production Units, as detailed in Section 2.2 (WP2) and 2.6 (WP6) of the SoW, the Offeror shall describe the full end to end processes they intend for:

4.4.6.2.3.1 Batch #1 Prototype First Article Systems;

4.4.6.2.3.2 Batch #2 and #3 (Batch #3 is an option) Production Units.

4.4.7 Section 3: Supportability

4.4.7.1 Offeror shall have provided a preliminary Integrated Product Support Plan (IPSP), as detailed in the SOW section 4.1 describing in detail each relevant content for each paragraph of the provided structure demonstrating the concept, understanding (who, what, when, where, how) and commitment of each activity. The preliminary IPSP shall include an annex with the traceability matrix to match coverage for all Integrated Product Support (IPS) requirements in the SOW section 4.1 to 4.12 vs relevant ISPS paragraphs. The preliminary IPSP shall be at least 20 pages and no more than 40 pages.

4.4.7.2 Offeror shall have provided a Product Support Case that shall support the IPSP and ISSP providing concise and precise answers to each requirement in one document. The Support Case shall be at least 40 pages and no more than 80 pages, and provide sufficient details for the following:

4.4.7.2.1 Reliability Availability Maintainability Testability (RAMT) Case Report, as detailed in the SOW section 4.2, describing in detail each relevant content for each paragraph of the provided structure;

4.4.7.2.2 Failure Mode Effects and Criticality Analysis (FMECA), as detailed in the SOW section 4.3, describing in detail each relevant content for each paragraph of the provided structure;

4.4.7.2.3 Maintenance Task Analysis (MTA), as detailed in the SOW section 4.4, describing in detail each relevant content for each paragraph of the provided structure;

4.4.7.2.4 Level of Repair Analysis (LORA), as detailed in the SOW section 4.5, describing in detail each relevant content for each paragraph of the provided structure;

4.4.7.2.5 Obsolescence Report, as detailed in the SOW section 4.6, describing in detail each relevant content;

4.4.7.2.6 Warranty Report, as detailed in the SOW section 4.11, describing in detail each relevant content;

4.4.7.3 Offeror shall have provided a preliminary Training Plan (TRNP), as detailed in the SOW section 2.4.2, describing in detail each relevant content for each paragraph of the provided structure (for both the TRNP and the Training Needs Analysis) demonstrating the concept, understanding (who, what, when, where, how) and commitment of each activity. The preliminary TRNP shall be at least 20 pages and no more than 40 pages.

4.4.7.4 Offeror shall provide a preliminary In-Service Support Plan (ISSP), as detailed in the SOW section 4.12, describing in detail each relevant content for each

paragraph of the provided structure demonstrating the concept, understanding (who, what, when, where, how) and commitment of each activity. The preliminary ISSP shall include an annex with a traceability matrix to match coverage for all Integrated Product Support (IPS) requirements in the SOW section 4.12 vs relevant ISSP paragraphs. The preliminary ISSP shall be at least 20 pages and no more than 40 pages.

4.4.7.5 Offeror shall provide a preliminary System Safety Program Plan (SSPP), as detailed in the SOW section 4.13, describing in detail each relevant content demonstrating the concept, understanding (who, what, when, where, how) and commitment of each activity. The preliminary ISSP shall be at least 10 pages and no more than 20 pages.

4.4.7.6 Offeror shall provide a preliminary Configuration Management Plan (CMP) as detailed in the SOW Section 6.1, describing in detail each relevant content so to demonstrate the concept, understanding (who, what, when, where, how) and commitment of each activity. The preliminary CMP shall include an annex with a traceability matrix to match coverage for all Configuration Management requirements in the SOW section 6 vs relevant CMP paragraphs. The preliminary CMP shall be at least 10 pages and no more than 20 pages.

4.4.7.7 Offeror shall provide a preliminary Quality Assurance Plan (QAP) as detailed in SOW Section 7.4. The preliminary QAP shall include an annex with a traceability matrix to match coverage for all Quality Assurance and Control requirements in the SOW section 7 vs relevant QAP paragraphs. The preliminary QMP shall be at least 10 pages and no more than 20 pages.

4.4.8 Section 4: Testing and Acceptance

4.4.8.1 The Offeror shall in this section demonstrate how it can meet the TDCIS capability testing requirements and conducting all related activities. This includes the draft of all test documentation required, the conduct of all testing and the evaluation and documentation of the tests results as specified in Sections 8.2, 8.3, 8.5 and 8.6 of the SoW.

4.4.8.2 The Offerors approach to testing, its resourcing, its structure;

4.4.8.2.1 All test areas where testing shall be required during the delivery, in particular:

4.4.8.2.2 Quality First Articles Section 2.2 (WP2);

4.4.8.2.3 Conduct User Testing Section 2.5 (WP5);

4.4.8.2.4 Provide Production Units Section 2.6 (WP6);

4.4.8.2.5 Support Operational Test and Evaluation Section 2.7 (WP7);

4.4.8.2.6 System Acceptance as per Section 10 of the SOW.

4.4.9 Section 5: Security Accreditation

4.4.9.1 The Offeror shall have provided a draft Security Accreditation Plan describing the steps to be taken to achieve security accreditation for TDCIS addressing all points under SEC-18 of SOW Section 9.4.

4.4.9.2 The Offeror shall have provided an initial draft design proposal to be used as basis for the initial CIS Description, containing the most important planned elements such as hardware typology, SW typology, data flows, general purpose/functions, and initial system diagram(s) in accordance with SOW Section 9.5.

4.4.10 Section 6: Manufacturers Datasheets

4.4.10.1 The Offeror shall provide as part of the System Design Plan (SDP) under section 2.1.2 of the SoW, manufacturers datasheets for all equipment, demonstrating compliance with the requirements stated in the SRS, Annex A of the SoW.

ANNEX A – CLARIFICATION REQUESTS FORMS

INSERT COMPANY NAME HERE

INSERT SUBMISSION DATE HERE

ADMINISTRATIVE/CONTRACTUAL				
Serial Nr	**RFQ Section Ref.**	**OFFEROR'S QUESTION**	**NCI AGENCY ANSWER**	**Status***
A.1				
A.2				
A.3				

* Status: Is Amendment to RFQ required as a direct result of the Clarification Request?

INSERT COMPANY NAME HERE

INSERT SUBMISSION DATE HERE

PRICE				
Serial Nr	**RFQ Section Ref.**	**OFFEROR'S QUESTION**	**NCI AGENCY ANSWER**	**Status***
P.1				
P.2				
P.3				

* Status: Is Amendment to RFQ required as a direct result of the Clarification Request?

INSERT COMPANY NAME HERE

INSERT SUBMISSION DATE HERE

TECHNICAL				
Serial Nr	**RFQ Section Ref.**	**OFFEROR'S QUESTION**	**NCI AGENCY ANSWER**	**Status***
T.1				
T.2				
T.3				

* Status: Is Amendment to RFQ required as a direct result of the Clarification Request?

Annex B – Administrative Certificates

ANNEX B-1

CERTIFICATE OF LEGAL NAME OF OFFEROR

This Quotation is prepared and submitted on behalf of the legal corporate entity specified below:

FULL NAME OF CORPORATION: _____

DIVISION (IF APPLICABLE): _____
SUB DIVISION (IF APPLICABLE): _____

OFFICIAL MAILING ADDRESS: _____

_____

_____

E-MAIL ADDRESS: _____

FAX NO.: _____

BOA NO.: _____

POINT OF CONTACT (POC) REGARDING THIS QUOTATION:

NAME: _____
POSITION: _____
TELEPHONE: _____
E-MAIL ADDRESS: _____

ALTERNATIVE POC:

NAME: _____
POSITION: _____
TELEPHONE: _____
E-MAIL ADDRESS: _____

_____ _____
DATE SIGNATURE OF AUTHORISED REPRESENTATIVE

_____
PRINTED NAME

_____
TITLE

ANNEX B-2

CERTIFICATE OF INDEPENDENT DETERMINATION

1. Each Offeror shall certify signing this Quotation shall also certify that:

   Each Offeror shall certify that in connection with this procurement:

   a. This quotation has been arrived at independently, without consultation, communication or agreement, for the purpose of restricting competition, with any other Offeror or with any competitor;

   b. The contents of this Quotation have not been knowingly disclosed by the Offeror and will not knowingly be disclosed by the Offeror prior to award, directly or indirectly to any other Offeror or to any competitor, and;

   c. No attempt has been made, or will be made by the Offeror to induce any other person or firm to submit, or not to submit, a Quotation for the purpose of restricting competition.

2. Each person signing this Quotation shall also certify that:

   a. They are the person in the Offeror's organisation responsible within that organisation for the decision as to the quotation and that they have not participated and will not participate in any action contrary to 1(a) through 1(c) above, or;

   b. (i) They are not the person in the Offeror's organisation responsible within that organisation for the quotation but that they have been authorised in writing to act as agent for the persons responsible for such a decision in certifying that such persons have not participated, and will not participate in any action contrary to 1(a) through 1(c) above, and as their agent does hereby so certify, and;

   (ii) They have not participated and will not participate in any action contrary to 1(a) through 1(c) above.

…….
Date

…….
Signature of Authorised Representative

…….
Printed Name and Title

…….
Company

NOTE: IF THE OFFEROR DELETES OR MODIFIES SUBPARAGRAPH (1B) OF THIS ANNEX, THE OFFEROR MUST FURNISH WITH ITS QUOTATION A SIGNED STATEMENT SETTING FORTH IN DETAIL THE CIRCUMSTANCES OF THE DISCLOSURE.

ANNEX B-3

CERTIFICATE OF QUOTATION VALIDITY

I, the undersigned, as an authorised representative of the firm submitting this quotation, do hereby certify that the pricing and all other aspects of our Quotation will remain valid for a period of 12(twelve) months from the Quotation Closing Date of this Request for Quotation.

…….
Date

…….
Signature of Authorised Representative

…….
Printed Name and Title

…….
Company

ANNEX B-4

CERTIFICATE OF UNDERSTANDING

I certify that

.....
.....*(Company Name)* has read and fully understands the requirements of this Request for Quotation (RFQ) and that the Quotation recognises these requirements in total.

I also certify to the best of my expert knowledge that this Quotation is within the "state of art" boundaries as they exist at the time of quotation for this project.

…….
Date

…….
Signature of Authorised Representative

…….
Printed Name and Title

…….
Company

ANNEX B-5

CERTIFICATE OF EXCLUSION OF TAXES, DUTIES AND CHARGES

I hereby certify that the prices offered in the price quotation of this Quotation exclude all taxes, duties and customs charges from which the Purchaser has been exempted by international agreement.

…….
Date

…….
Signature of Authorised Representative

…….
Printed Name and Title

…….
Company

ANNEX B-6

ACKNOWLEDGEMENT OF RECEIPT OF RFQ AMENDMENTS

I confirm that the following Amendments to Request for Quotation No RFQ-CO-115363-PRT-TDICS have been received and the Quotation as submitted reflects the content of such Amendments:

Amendment Number	**Date of Issue by the Purchaser**	**Date of Receipt by the Offeror**

…….
Date

…….
Signature of Authorised Representative

…….
Printed Name and Title

…….
Company

ANNEX B-7

DISCLOSURE OF REQUIREMENTS FOR NCI AGENCY EXECUTION OF SUPPLEMENTAL AGREEMENTS

I, the undersigned, as an authorised representative of …… ……..……*(Company Name)*, certify the following statement (*Check the applicable statement below*):

☐ I do not have any supplemental agreements to disclose for the performance of this contract [*cross out points 1 to 5 of this certificate*].

☐ I do have supplemental agreements to disclose for the performance of this contract (*complete points 2 and 3 below in a separate attachment to this certificate*).

1. All supplemental agreements, defined as agreements, documents and/or permissions outside the body of the Contract but required by my Government, and the governments of my sub-Contractors, to be executed by the NCIA as a condition of my firm's performance of the Contract, have been identified, as part of the Quotation.

2. Examples of the terms and conditions of these agreements are attached hereto. The anticipated restrictions to be imposed on NATO, if any, have been identified in our offer along with any potential conflicts with the terms, conditions and specifications of the Prospective Contract, see …….. *(complete, if any)*. These anticipated restrictions and potential conflicts are based on our knowledge of and prior experience with such agreements and their implementing regulations. We do not certify that the language or the terms of these agreements will be exactly as we have anticipated.

3. The processing time for these agreements has been calculated into our delivery and performance plans and contingency plans made in the case that there is delay in processing on the part of the issuing government(s), see …….. *(complete, if any)*.

4. We recognise that additional supplemental agreements, documents and permissions presented as a condition of Contract performance or MOU signature after our firm would be selected as the successful Offeror may be cause for the NCIA to determine the submitted quotation to be non-compliant with the requirements of the RFQ.

5. We accept that should the resultant supplemental agreements issued in final form by the government(s) result in an impossibility to perform the Contract in accordance with its schedule, terms or specifications, the Contract may be terminated by the Purchaser at no cost to either Party.

…..
Date

…..
Signature of Authorised Representative

…..
Printed Name and Title

…..
Company

ANNEX B-8

CERTIFICATION OF NATO MEMBER COUNTRY ORIGIN OF DELIVERED EQUIPMENT, SERVICES, MATERIALS AND INTELLECTUAL PROPERTY RIGHTS

The Offeror hereby certifies that, if awarded the Contract pursuant to this solicitation, it will perform the contract subject to the following conditions:

(a) none of the work, including project design, labour and services shall be performed other than by firms from and within participating NATO member countries;

(b) no material or items of equipment down to and including identifiable sub-assemblies shall be manufactured or assembled by a firm other than from and within a participating NATO member country (a sub-assembly is defined as a portion of an assembly consisting of two or more parts that can be provided and replaced as an entity)*; and

(c) the intellectual property rights to all design documentation and related system operating software shall reside in NATO member countries, and no license fees or royalty charges shall be paid by the Contractor to firms, individuals or governments other than within the NATO member countries.

…….
Date

…….
Signature of Authorised Representative

…….
Printed Name and Title

…….
Company

ANNEX B-9

COMPREHENSION AND ACCEPTANCE OF CONTRACT GENERAL AND SPECIAL PROVISIONS

The Offeror hereby certifies that it has reviewed the Contract Special Provisions set forth in the Prospective Contract, Book II of this Request for Quotation (RFQ) and the Contract Provisions set forth in the Basic Ordering Agreement signed with the NCI Agency. The Offeror hereby provides its confirmation that it fully comprehends the rights, obligations and responsibilities of the Contractor as set forth in the Articles and Clauses of the Prospective Contract. The Offeror additionally certifies that the Quotation submitted by the Offeror is without prejudice, qualification or exception to any of the Terms and Conditions and it will accept and abide by the stated Special Contract Provisions if awarded the contract as a result of this RFQ.

…….
Date

…….
Signature of Authorised Representative

…….
Printed Name and Title

…….
Company

ANNEX B-10

LIST OF PROSPECTIVE SUB-CONTRACTORS/CONSORTIUM MEMBERS

Name and Address of Sub-Contractor, incl. country of origin/registration	Primary Location of Work	Items/Services to be Provided	Estimated Value of Sub-Contract

If no sub-Contractors/consortium members are involved, state this here:
……..
……
……..
……..

…….....
Date

…….....
Signature of Authorised Representative

…….....
Printed Name and Title

…….....
Company

ANNEX B-11

CERTIFICATE OF AQAP 2110 OR ISO 9001:2015 COMPLIANCE

I hereby certify that …… *(Company Name)* is fully compliant with the AQAP 2110 or ISO 9001:2015 Quality Assurance Standards and Procedures and is currently so certified.

A copy of the quality certification is **attached herewith**.

…..
Date

…..
Signature of Authorised Representative

…..
Printed Name and Title

…..
Company

ANNEX B-12

LIST OF PROPOSED KEY PERSONNEL WITH SECURITY CLEARANCE INFORMATION

Although NATO, as an international organization, is not subject to GDPR and national data protection law, it is committed to protecting the personal data that it processes. All processing of personal data will be done in accordance with applicable NATO policies and regulations.

POSITION	NAME	LEVEL OF CLEARANCE	DATES OF VALIDITY	CERTIFYING AUTHORITY	EXPECTED DATE OF RELEASE OF REQUIRED SECURITY CLEARANCE	DESIGNATION PERIOD
Project Manager						EDC thru Contract expiration date
Technical Lead						EDC thru Contract expiration date
Test Director						EDC thru Contract expiration date
CIS Security Manager						EDC thru Contract expiration date
IPS Manager						EDC thru Contract expiration date
Training Manager						EDC thru Contract expiration date
Configuration Manager						EDC thru Contract expiration date
Quality Manager						EDC thru Contract expiration date

Signature of authorised Representative:_____

Printed Name: _____

Title: _____

Date: _____

Company: _____

ANNEX B-13

Disclosure of Involvement of Former NCI Agency Employment

The Offeror hereby certifies that, in preparing its Quotation, the Offeror did not have access to solicitation information prior to such information been authorized for release to Offerors (e.g., draft statement of work and requirement documentation).

The Offeror hereby acknowledges the post-employment measures applicable to former NCI Agency Personnel as per the NCI Agency Code of Conduct.

The Offeror hereby certifies that its personnel working as part of the company's team, at any tier, preparing the Quotation:

☐ Have not held employment with NCI Agency within the last two years.

☐ Has obtained a signed statement from the former NCI Agency personnel below, who departed the NCI Agency within the last two years, that they were not previously involved in the project under competition (as defined in the extract of the NCI Agency Code of Conduct provided below):

Employee Name	Former NCIA Position	Current Company Position

The Offeror also hereby certifies that it does not employ and/or receive services from former NCI Agency Personnel at grades A5 and above or ranks OF-5 and above, who departed the NCI Agency within the last 12 months. This prohibitions covers negotiations, representational communications and/or advisory activities.

_____
Date

_____
Signature of Authorised Representative

_____
Printed Name

_____
Title

_____
Company

Excerpt of NCI Agency AD. 05.00, Code of Conduct dated May 2017

Article 14 PROCUREMENT AND CONTRACTORS

14.1 NCI Agency Personnel are required to maintain unquestionable integrity and impartiality in relation to procurements initiated by the NCI Agency.

14.2 NCI Agency Personnel shall not disclose any proprietary or contract related information regarding procurement directly or indirectly to any person other than a person authorized by the NCI Agency to receive such information. NCI Agency Personnel shall not disclose any documentation related to a procurement action to any third party without a need to know1 (e.g., draft statement of work, statement of requirements) unless this is expressly provided under NATO Procurement Regulations or authorized in writing by the Director of Acquisition. During an on-going selection, NCI Agency Personnel shall not disclose any information on the selection procedure unless authorized by the Chairman of the award committee/board. The NCI Agency Personnel concerned will ensure that proper access controls are put in place to prevent disclosure of procurement information that has not yet been authorized for release for outside distribution, including draft statements of work and requirement documentations.

14.3 NCI Agency Personnel will not participate in a source selection if an offer has been provided by a friend, family member, a relative, or by a business concern owned, substantially owned, or controlled by him/her or by a friend, family member or a relative. NCI Agency Personnel appointed as part of an evaluation shall report such links to the Director of Acquisition immediately upon becoming aware of it.

14.4 Contractors and consultants shall not be allowed to participate in the drafting of the statement of work or in the source selection process unless they and their company/employer will be excluded from competition of the related contract. The same will apply to contractors and consultants involved in the definition and development of requirements.

14.5 Contractors will be given specific and coherent statements of work, providing precise explanation of how she/he is going to be employed. Tasks to be performed and minimum qualifications are to be well defined from the start. In addition, supervisors will ensure that contractors do not occupy managerial positions within the Agency.

14.6 NCI Agency Personnel shall not enter into authorized commitments in the name of NCI Agency or NATO unless specifically authorized. NCI Agency Personnel must abstain from making promises or commitment to award or amend a contract or otherwise create the appearance of a commitment from the NCI Agency unless properly authorized by the NCI Agency.

14.7 NCI Agency Personnel shall not endorse directly or indirectly products from industry. Therefore, NCI Agency Personnel shall not name or make statements endorsing or appearing to endorse products of specific companies.

14.8 Industry partners will need to abide with the post-employment measures under this Directive upon submission of their Quotations / proposals to the NCI Agency. As part of the selection process, industry will be requested to agree with an ethical statement.

15 INDUSTRY INITIATIVES

15.1 Industry initiatives may include loans, displays, tests or evaluation of equipment and software, requesting NCI Agency speakers at industry gatherings and conferences, inviting speakers from industry to NCI Agency events, consultancy or studies of technical or organizational issues, etc. These initiatives are usually at no cost to the NCI Agency and take place at a pre-contractual phase or before the development of requirements and specifications. While there are benefits associated with the early involvement of industry in the definition of requirements and specifications, this also raises the potential for unfair treatment of potential competitors.

15.2 Industry initiatives which go beyond routine interaction in connection with on-going contracts must be reported to and coordinated by the NCI Agency Acquisition Directorate for approval. Industry initiatives shall be properly documented and governed by written agreements between the NCI Agency and the company concerned where relevant. Such agreements may contain provisions describing the nature of the initiative, the non-disclosure of NCI Agency/NATO information, NCI Agency ownership of any resulting work, the NCI Agency's right to release such work product to future competitors for any follow-on competition or contract, the requirement that any studies must provide non-proprietary solutions and/or an acknowledgement that the participating companies will not receive any preferential treatment in the contracting process.

15.3 Any authorized industry initiatives must be conducted in such a way that it does not confer an unfair advantage to the industry concerned or create competitive hurdles for potential competitors.

16 POST EMPLOYMENT MEASURES

17.1 The NCI Agency will not offer employment contracts to former NCI Agency Personnel who departed less than 2 years earlier, unless prior approval by the General Manager has been received.

17.2 Former NCI Agency Personnel will not be accepted as consultants or commercial counterpart for two (2) years after finalization of their employment at NCI Agency, unless the General Manager decides otherwise in the interest of the Agency and as long as NATO rules on double remuneration are observed. Such decision shall be recorded in writing. Commercial counterparts include owners or majority shareholders, key account managers, or staff member, agent or consultant of a company and/or subcontractors seeking business at any tier with the NCI Agency in relation to a procurement action in which the departing NCI Agency staff member was involved when they were under the employment of the NCI Agency. As per the Prince 2 Project methodology, a Project is defined as a "temporary organization that is created for the purpose of delivering one or more business products according to an agreed business case". For the purpose of this provision, involvement requires (i) drafting, review or coordination of internal procurement activities and documentation, such as statement of work and statement of requirement; and/or (ii) access to procurement information that has not yet been authorized for release for outside distribution, including draft statements of work and requirement documentations; and/or (iii) being appointed as a representative to the Project governance (e.g., Project Board) with access to procurement information as per (ii) above; and/or (iv) having provided strategic guidance to the project, with access to procurement information as per (ii) above.

17.3 In addition to Section 17.2 above, former NCI Agency Personnel at grades A5 and above or ranks OF-5 and above are prohibited during twelve months following the end of their employment with the NCI Agency to engaging in negotiations,

representational communications and/or advisory activities with the NCI Agency on behalf of a private entity, unless this has been agreed in advance by the NCI Agency General Manager and notified to the ASB.

17.4 NCI Agency Personnel leaving the Agency shall not contact their former colleagues in view of obtaining any information or documentation about procurement activities not yet authorized' release. NCI Agency Personnel shall immediately report such contacts to the Director of Acquisition.

17.5 The ASB Chairman will be the approving authority upon recommendation by the Legal Adviser when the NCI Agency Personnel concerned by the above is the NCI Agency General Manager and will notify the ASB.

17.6 NCI Agency Personnel leaving the Agency shall sign a statement that they are aware of the post-employment measures set out in this Directive.

17.7 The post-employment measures set out in this Directive shall be reflected in the NCI Agency procurement documents, such as RFQs, and contract provisions.

ANNEX B-14

OFFEROR BACKGROUND IPR

The Offeror Background IPR specified in the table below will be used for the purpose of carrying out work pursuant to the Contract.

ITEM	DESCRIPTION

The Offeror has and will continue to have, for the duration of the Contract, all necessary rights in and to the Background IPR specified above.

The Background IPR stated above complies with the terms specified in Article 29, Part II- Special Provisions and Article 30 of the NCI Agency, Part III - General Provisions.

ANNEX B-15

LIST OF SUBCONTRACTOR IPR

The Subcontractor IPR specified in the table below will be used for the purpose of carrying out work pursuant to the Contract.

ITEM	DESCRIPTION

The Offeror has and will continue to have, for the duration of the Contract, all necessary rights in and to the IPR specified above necessary to perform the Offeror's obligations under the Contract.

The Subcontractor IPR stated above complies with the terms specified in Article 30 of the NCI Agency, Part III - General Provisions.

Annex C – Bidding Sheets

[Provided under separate MS Excel File:

"RFQ-CO-115363-PRT-TDCIS – Book I Annex C – Bidding Sheets – AMD7"]

Annex D – Instructions for the Preparation of Bidding Sheets

1. Offerors are required, in preparing their Price Quotation to utilise the Bidding Sheets following the instructions detailed in Section III– Quotation Preparation Instructions and CLIN **Bidding Sheet instructions within the Bidding Sheets itself.**

2. The prices entered on the Bidding Sheets shall reflect the total items required to meet the contractual requirements.

3. The total price shall be indicated in the appropriate columns and in the currency quoted.

4. The total evaluated price shall be the price of the basic Contract with evaluated option.

5. Prices shall not include any provision for taxes or duties for which the Purchaser is exempt.

6. The Offeror shall not introduce any changes or deviations to the bidding sheets as Published by the Purchaser.

Annex E – Compliance table

Offeror shall complete column "QUOTATION REFERENCE" with Quotation references that locate the technical proposal documentation required by the RFQ, e.g. section, paragraph, table (if applicable), page number etc. One copy each of the duly completed Cross Reference/Compliance Table is to be included in the Quotation Technical Proposal package. The Quotation shall follow the instructions in Section 3.5, and will be evaluated according to the instructions in Section 4.4.

Bidding Instructions Requirement Ref.	**SOW Requirement Ref**	**REQUIREMENT DESCRIPTION**	**Evaluation Criterion Ref.**	**QUOTATION REFERENCE**
				Offeror to complete
3.5.2.1		Table of Contents Offeror shall compile a detailed Table of Contents which lists not only section headings but also major sub-sections, and topic headings required set forth in these Instructions or implicit in the organisation of the Technical Proposal.	4.4.3.1	
3.5.2.2		Cross-Reference/Compliance Table The Offeror shall include the completed Technical Proposal Cross-Reference Table at Annex E of Book I. The Offeror shall complete the Column marked "QUOTATION REFERENCE" of the Table, citing the appropriate section of the Technical Proposal that corresponds to each paragraph of these Instructions for the Preparation of the Technical Proposal. The completed Table serves as an index for the Purchaser's Technical Evaluation Panel and also as an aide memoire to the Offeror to ensure that all the required information has been provided in the Technical Proposal.	4.4.4.1	
		Section 1 Project Management Documentation (PMP and PIP)		
3.5.3.1	3.2.1	Project Overview. The Offeror shall provide a Project Overview which shall provide an executive summary overview of the offered capability. The Project Overview	4.4.5.1	

Bidding Instructions Requirement Ref.	SOW Requirement Ref	REQUIREMENT DESCRIPTION	Evaluation Criterion Ref.	QUOTATION REFERENCE
		shall also summarise the main features of each of the sections of the Technical Proposal and shall indicate in broad detail how and in which geographic regions the Project's phases as illustrated in Appendix A of the SoW will be executed during the full lifetime of the Project.		
3.5.3.2	3.2.1	The Offeror shall submit a preliminary Project Management Plan (PMP) in accordance with the requirements of Section 3.2.1 of the SoW (Book II Part IV) that defines how the Offorer intends to manage this project from contract signature through Final System Acceptance and throughout any warranty periods. The preliminary PMP shall consider all aspects of project management and control and demonstrate how all the critical dates defined in the contract will be met. The preliminary PMP with all appendices shall be a minimum of 20 pages but not to exceed 35 pages, and shall have a GANNT Chart as an Appendix that maps to both the Offerers PMS and the Bidding Sheet CLINs.	4.4.5.2	
3.5.3.3	3.2.2	The Offeror shall submit a preliminary Project Implementation Plan in accordance with the requirements of Section 3.2.2 of the Statement Of Work (SOW) (Book II Part IV), which clearly describes how the Offeror intends to implement the totality of the project in compliance with the contractual requirements and the following specific requirements:	4.4.5.3	
3.5.3.3.1	2.5.1, 2.7.2, 4.10	The Offeror shall provide a statement assuring that all requirements shall be met for the Site Survey and Site Survey Report in accordance to the requirements stated in Sections 2.5.1, 2.7.2, and	4.4.5.3.1	

Bidding Instructions Requirement Ref.	SOW Requirement Ref	REQUIREMENT DESCRIPTION	Evaluation Criterion Ref.	QUOTATION REFERENCE
		4.10 of the SoW (Book II Part IV). The site survey shall be performed according to the Schedule of Supplies and Services after the Effective Date of the Contract. .		
3.5.3.3.2	3.2.2.3	The preliminary PIP shall include a Project Master Schedule (PMS) in accordance to the requirements stated in Section 3.2.2.3 of the SoW (Book II Part IV) that shall contain all contract events and milestones for the Project. The PMS shall show all contractual deliverables, their delivery dates, and the tasks associated with them. The PMS shall for each task identify the start and finish dates, duration, predecessors, constraints, and resources. The PMS shall provide network, milestone, and Gantt views, and identify the critical path for the overall project.	4.4.5.3.2	
3.5.3.3.3	9	The preliminary PIP shall inclued required security accreditation documents as described in Section 9 of the Sow.	4.4.5.3.3	
3.5.3.4	Appendix D	Project Personnel. The Offeror shall provide a curriculum vitae for the personnel proposed for this project listed in Appendix D Key Personnel Requirements of the SoW (Book I Part IV). The Offeror shall provide a narrative describing the rationale for the selection of these individuals for these posts and provide detailed descriptions of the relevant experience of the individuals and security clearance information. This subsection shall also describe the authority and responsibility (and the limits) of the Project Manager within the overall corporate organisation, including the circumstances at which the Project Manager must refer decision making authority to the next level of Corporate	4.4.5.4	

Bidding Instructions Requirement Ref.	SOW Requirement Ref	REQUIREMENT DESCRIPTION	Evaluation Criterion Ref.	QUOTATION REFERENCE
		management.		
		SECTION 2: ENGINEERING		
3.5.4.1	2.1.2	The Offeror shall provide a draft System Design Plan (SDP), as detailed in Section 2.1 (WP1) of the SoW.	4.4.6.1.	
3.5.4.2	2.1.5.1	Offerors shall provide a draft High Level Design (HLD), as detailed Section 2.1.5.1 of the SOW. The HLD shall address all HLD requirements as detailed in the SOW. In addition that HLD shall:	4.4.6.2	
3.5.4.3		Provide an initial draft demonstrating an understanding of the design objective, constraints and the need to integrate PFE to the system design and in turn integrate the system with external PFE connectivity;	4.4.6.2.1	
~~3.5.4.4~~	~~2.1.5~~	~~Provide an initial draft for system Low Level Design (LLD) on:~~ ~~Access Node;~~ ~~Battalion Node;~~ ~~Company Communication Node;~~ ~~Transit Node;~~ ~~Rear Link Node;~~ ~~GAR-T Relay;~~ ~~Radio Access Point.~~ ~~NS Kit;~~ ~~Pooled Appliances;~~ ~~Describe the Offerors intent for Interface Control Documentation (ICD);~~	~~4.4.6.2.2~~	
3.5.5	2.2, 2.6	Offerors shall provide an initial draft detailed description of how they intend to Build and Provide Production Units, as detailed in Section 2.2 (WP2) and Section 2.6 (WP6) of the SoW. The Offeror shall describe the full end to end processes they intend for: a. Batch #1 First Article Systems; b. Batch #2 and #3 (Option) Production Units.	4.4.6.2.2~~3~~	

Bidding Instructions Requirement Ref.	SOW Requirement Ref	REQUIREMENT DESCRIPTION	Evaluation Criterion Ref.	QUOTATION REFERENCE
		SECTION 3: SUPPORTABILITY		
3.5.6.1	4.1 – 4.12	Offeror shall provide a preliminary Integrated Product Support Plan (IPSP), as detailed in the SOW section 4.1 describing in detail each relevant content for each paragraph of the provided structure demonstrating the concept, understanding (who, what, when, where, how) and commitment of each activity. The preliminary IPSP shall include an annex with the traceability matrix to match coverage for all Integrated Product Support (IPS) requirements in the SOW section 4.1 to 4.12 vs relevant ISPS paragraphs. The preliminary IPSP shall be at least 20 pages and no more than 40 pages.	4.4.7.1	
3.5.6.2	4.1	Offeror shall provide a Product Support Case that shall support the IPSP and ISSP providing concise and precise answers to each requirement in one document. The Support Case shall be at least 40 pages and no more than 80 pages, and provide sufficient details for the following:	4.4.7.2	
3.5.6.2.1	4.2	Reliability Availability Maintainability Testability (RAMT) Case Report, as detailed in the SOW section 4.2 , describing in detail each relevant content for each paragraph of the provided structure;	4.4.7.2.1	
3.5.6.2.2	4.3	Failure Mode Effects and Criticality Analysis (FMECA), as detailed in the SOW section 4.3, describing in detail each relevant content for each paragraph of the provided structure;	4.4.7.2.2	
3.5.6.2.3	4.4	Maintenance Task Analysis (MTA), as detailed in the SOW section 4.4, describing in detail each relevant content for each paragraph of the provided structure;	4.4.7.2.3	

Bidding Instructions Requirement Ref.	SOW Requirement Ref	REQUIREMENT DESCRIPTION	Evaluation Criterion Ref.	QUOTATION REFERENCE
3.5.6.2.4	4.5	Level of Repair Analysis (LORA), as detailed in the SOW section 4.5, describing in detail each relevant content for each paragraph of the provided structure;	4.4.7.2.4	
3.5.6.2.5	4.6	Obsolescence Report, as detailed in the SOW section 4.6 , describing in detail each relevant content;	4.4.7.2.5	
3.5.6.2.6	4.11	Warranty Report, as detailed in the SOW section 4.11, describing in detail each relevant content;	4.4.7.2.6	
3.5.6.3	2.4.2	Offeror shall provide a preliminary Training Plan (TNRP), as detailed in the SOW section 2.4.2, describing in detail each relevant content for each paragraph of the provided structure (for both the TNRP and the Training Needs Analysis) demonstrating the concept, understanding (who, what, when, where, how) and commitment of each activity. The preliminary TNRP shall be at least 20 pages and no more than 40 pages.	4.4.7.3	
3.5.6.4	4.12	Offeror shall provide a preliminary In-Service Support Plan (ISSP), as detailed in the SOW section 4.12, describing in detail each relevant content for each paragraph of the provided structure demonstrating the concept, understanding (who, what, when, where, how) and commitment of each activity. The preliminary ISSP shall include an annex with a traceability matrix to match coverage for all Integrated Product Support (IPS) requirements in the SOW section 4.12 vs relevant ISSP paragraphs. The preliminary ISSP shall be at least 20 pages and no more than 40 pages.	4.4.7.4	
3.5.6.5	4.13	Offeror shall provide a preliminary System Safety Program Plan (SSPP), as detailed in the SOW	4.4.7.5	

Bidding Instructions Requirement Ref.	SOW Requirement Ref	REQUIREMENT DESCRIPTION	Evaluation Criterion Ref.	QUOTATION REFERENCE
3.5.6.6 3.5.6.7	6.1 7.4	section 4.13, describing in detail each relevant content demonstrating the concept, understanding (who, what, when, where, how) and commitment of each activity. The preliminary ISSP shall be at least 10 pages and no more than 20 pages. Offeror shall provide a preliminary Configuration Management Plan (CMP) as detailed in the SOW Section 6.1 , describing in detail each relevant content so to demonstrate the concept, understanding (who, what, when, where, how) and commitment of each activity. The preliminary CMP shall include an annex with a traceability matrix to match coverage for all Configuration Management requirements in the SOW section 6 vs relevant CMP paragraphs. The preliminary CMP shall be at least 10 pages and no more than 20 pages. Offeror shall provide a preliminary Quality Assurance Plan (QAP) as detailed in SOW Section 7.4. The preliminary QAP shall include an annex with a traceability matrix to match coverage for all Quality Assurance and Control requirements in the SOW section 7 vs relevant QAP paragraphs. The preliminary QMP shall be at least 10 pages and no more than 20 pages.	4.4.7.6 4.4.7.7	
		SECTION 4: TESTING AND ACCEPTANCE		
3.5.7	8	The Offeror shall in this section demonstrate how it can meet the TDCIS capability testing requirements and conducting all related activities. This includes the development of all test documentation required, the	4.4.8.1	

Bidding Instructions Requirement Ref.	SOW Requirement Ref	REQUIREMENT DESCRIPTION	Evaluation Criterion Ref.	QUOTATION REFERENCE
		conduct of all testing and the evaluation and documentation of the tests results as specified in Sections 8.2, 8.3, 8.5 and 8.6 of the SoW.		
		The Offerors approach to testing, its resourcing, its structure;	4.4.8.2	
		All test areas where testing shall be required during the delivery, in particular:	4.4.8.2.1	
	2.2	Quality First Articles Section 2.2 (WP2);	4.4.8.2.2	
	2.5	Conduct User Testing and PSA Section 2.5 (WP5);	4.4.8.2.3	
	2.6	Provide Production Units Section 2.6 (WP6)	4.4.8.2.4	
	2.7	Support Operational Test & Evaluation Section 2.7 (WP7);	4.4.8.2.5	
	10	System Acceptance as per Section 10 of the SOW.	4.4.8.2.6	
		SECTION 5: SECURITY ACCREDITATION		
3.5.8.1	9.4	The Offeror shall have provided a draft Security Accreditiation Plan describing the steps to be taken to achieve security accreditation for TDCIS addressing all points under SEC-18 of SOW Section 9.4.	4.4.9.1	
3.5.8.2	9.5	The Offeror shall provide an initial draft design proposal to be used as basis for the initial CIS Description, containing the most important planned elements such as hardware typology, SW typology, data flows, general purpose/ functions, and initial system diagram(s) in accordance with SOW Section 9.5.	4.4.9.2	

Bidding Instructions Requirement Ref.	SOW Requirement Ref	REQUIREMENT DESCRIPTION	Evaluation Criterion Ref.	QUOTATION REFERENCE
		SECTION 6: MANUFACTURERS DATASHEETS		
3.5.9	2.1.2	The Offeror shall provide as part of the System Design Plan (SDP) under section 2.1.2 of the SoW, manufacturers datasheets for all equipment, demonstrating compliance with the requirements stated in the SRS, Annex A of the SoW.	4.4.10.1	

RFQ-CO-115363-PRT-TDCIS

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

Book II Part IV

STATEMENT OF WORK

AMD8

RFQ-CO-115363-PRT-TDCIS
NATO UNCLASSIFIED Commercial-In-Confidence
29 November~~September~~ 2022
213

This page is intentionally left blank.

TABLE OF CONTENTS

TABLE OF ANNEXES

INDEX OF FIGURES

INDEX OF TABLES

1 INTRODUCTION

1.1 BACKGROUND

[1] This Statement of Work (SOW) defines the tasks to be performed by the Contractor in order to meet requirement to deliver a fully coherent and interoperable Tactical Deployed Communication Information System (TDCIS), to the Portuguese Republic Ministry of Defence. This SOW outlines the customer's business and technical requirements for the TDCIS.

[2] TDCIS will deploy with The Portuguese National Army (PNA), who developed as a prototype, the proof-of-concept system called "Sistema de Informação e Comunicações - Tático (SIC-T)".

[3] The SIC-T is a modular System of Systems (SoS) configured into truck-mounted Shelters and Trailers that provides a CIS used on National and International (NATO and non-NATO) Deployed Operations and Exercises.

[4] This SIC-T is designed to support PNA national and multi-national expeditionary operations at a Brigade level and below; that proof-of-concept now needs uplifting.

[5] This project is the basis for delivering a TDCIS to the Portuguese Army, as the uplift to the SIC-T system which they developed.

1.2 PURPOSE

[6] The TDCIS will integrate the respective Command, Control, Communications, Computers Intelligence, Surveillance and Reconnaissance (C4ISR) Systems, which will enable PNA units to interoperate with National and International Agencies.

INT-1 The Contractor shall undertake the secure design, production, assembly, transport, testing, training, documentation, certification, and delivery of all the materials and equipment necessary to deploy a complete and fully functional TDCIS solution.

[7] The Contractor shall cater for the integration of all Purchaser Furbished Equipment (PFE) given within the Statement of Work (SoW) document.

[8] The TDCIS is based on knowledge, experience and lessons learned from the:

a. PRT prototype SIC-T;

b. NATO Deployable CIS (DCIS).

[9] To support the TDCIS capability integration, the PRT will provide the bearers (e.g. SATCOM airtime), and will provide Vehicles onto which the TDCIS Modules will be mounted or towed.

1.3 SCOPE

[10] The TDCIS Project will design, develop and deliver a TDCIS that can functionally and securely operate within the Portuguese National and NATO Operations and Exercises.

[11] The TDCIS will comprise a range of Shelters and Trailers based Node types and a NATO Secret (NS) Kit, as shown in Table 1-1, each configured for a specific Mission deployment.

[12] Table 1-1 below illustrates the profile of TDCIS users across the node types and the domains therein.

[13] Table 1-2 illustrates the number of each of the 8 node types required to support the TDCIS user profile given in Table 1-1.

[14] The Shelters will be mounted on all-terrain vehicles[1] that can be located in the operational scenario as per the mission requirements.

[15] The trailers can be used independently as a Communication rebroadcast facility.

[16] In addition to the Shelters there are also specialist Trailers, these too are Mission specific but their usage and variability is less complex than the Shelter.

[17] The TDCIS **does not** include a dedicated Test and Reference Environment.

[18] The TDCIS **does not** include a dedicated Training Environment.

Table 1-1 Specific Mission Deployment

TDCIS Node Security Domain	Access Node (AN) End Users	Battation Communications Centre (BCC) End Users	Company Communications Centre (CCC) End Users	Radio Access Point (RAP) End Users	Transit Node (TN) End Users	Rear Link (RL) End Users
xU	34	16	4	-	-	-
xR	34	16	4	-	-	-
xS[2]	22	10	-	-	-	-
Security Domain	AN SysAdmin Users	BCC SysAdmin Users	CCC SysAdmin Users	RAP SysAdmin Users	TN SysAdmin Users	RL SysAdmin Users
BLK	2	2	2	2	2	2
xU	2	2	2	2	2	2
xR	2	2	2	2	-	-
xS	2	2	-	-	-	-

[1] Vehicles for use with node shelters and towing trailers are PFE and out of scope to this SoW
[2] This term refers to the s*cr*t domain in either National or NATO CIS

Table 1-2 TDCIS Composition

Item	Node	Description	Total shelters	Nodes in scope	Total trailers	Batch 1	Batch 2	Batch 3
1	**Access Node (AN)**	1 Command and MGMT Shelter 1 Transmission Shelter	6	3	-	2	1	-
2	**Battalion Communications Centre (BCC)**	1 Command and MGMT Shelter 1 Transmission Shelter	10	5	-	2	2	1
3	**Company Communications Centre (CCC)**	1 Integrated Shelter	13	13	-	4	5	4
4	**Radio Access Point (RAP)**	1 Transmission Shelter	8	8	-	1	4	3
5	**Transit Nodes (TN)**	1 Transmission Shelter	7	7	-	2	2	3
6	**Rear Links (RL)**	1 Rear Link Shelter 1 GAR-T B trailer	3	3	3	1	1	1
7	**GAR-T HCLOS Relay**	1 GAR-T Relay trailer (2 x HCLOS in each)	-	4	4	1	2	1
8	**NS Kit**	1 NS Kit	-	1	-	1	-	-
9	**Pooled Appliances**	1 Set Equipment	-	1		1		
		Total number of assets:	**47**	**45**	**7**	**15**	**17**	**13**

1.4 REQUIREMENTS STRUCTURE

[19] The SOW requirements are organised as per Table 1-3.

Table 1-3 TDCIS SOW Structure

SECTION 1	Introduction
SECTION 2	Scope of Work
(WP1)	Provide System Design
(WP2)	Qualify First Articles
(WP3)	Support Security Accreditation Process
(WP4)	Conduct Training
(WP5)	Conduct IV&V Assesment and Support Provisional Systems Acceptance
(WP6)	Provide Production Units
(WP7)	Support Operational Test and Evaluation (OpTEval)
SECTION 3	Project Management
SECTION 4	Integrated Product Support (IPS)
SECTION 5	Documentation
SECTION 6	Configuration Management
SECTION 7	Quality Assurance and Control
SECTION 8	Test, Verification & Validation
SECTION 9	Security Accreditation
SECTION 10	System Acceptance
Appendices:	
Appendix A	Applicable Reference Documents
Appendix B	Purchaser Furnished Equipment
Appendix C	Maintenance and Support Concepts
Appendix D	Key Personnel Requirements
Appendix E	Project Activity Flow
Appendix F	Table of Abbreviations
Appendix G	Glossary of Terms
Annexes:	
Annex A	System Requirements Specifications (SRS) containing the functional and technical requirements

1.5 TEST, VERIFICATION & VALIDATION APPROACH

INT-2 All testing, verification and validation activities to be conducted by the Contractor shall be based on the full and detailed breakdown of test events derived from the Requirements Traceability Matrix (RTM).

INT-3 Test shall be the default validation method for all requirements. Any deviation from test shall be presented by the Contractor, with a justification, for review and decision by the Purchaser.

INT-4 The Contractor shall:

1) Refine the testing scope under each Work Package, down to specific events;

2) Document at high level in the Project Master Test Plan (MTP);

3) Detail each test event to ensure comprehensive testing is undertaken.

INT-5 The testing requirements contained under the various Work Packages of Section 2 are intended to highlight the focus of the test events in the Work Package and shall in no-way dilute the requirement for a full comprehensive testing in line with the RTM.

INT-6 The Contractor shall ensure that in case of conflict between the scope of the test events as described in the Work Package and the testing requirements derived from the RTM, the latter shall take precedence.

1.6 IMPLEMENTATION STAGING

[20] This project will be executed in six phases, spanning from the Effective Date of Contract (EDC) to Final System Acceptance (FSA) followed by 2 years of warranty.

[21] The project has 6 Phases with supporting enablers that comprise the following:

a. Phase 1 – System Design. This phase firmly sets the scene for the whole delivery, it shall conclude with a Preliminary Design Review (PDR) that sets expectation levels on the delivery lifecycle. This is the strategy phase with some of the Contractual Documentation Requiremetn List (CDRL) delivered as 'Presentational' with some information back up.

b. Phase 2 – System Development. This phase develops the PDR baseline further and places a number of key blueprint designs. It also offers the Contractor an opportunity to mature its individual strategies into firm baselined plans. This phase concludes with a Key Milestone "Critical Design Review (CDR)". This phase should be informed by relevant Portugal national security policy as well as NATO Security Policy, to be provided to the selected Contractor as relevant.

c. Phase 3 – Batch 1 Build. This phase focusses on the manufacture of the Batch 1 nodes. The Phase consists of 5-tranches of build and concludes with a full batch 1 Factory Acceptance Test (FAT).

d. Phase 4 – Deliver Training, Conduct UAT(E) and PSA. The Contractor shall be responsible for the execution of this entire phase, including the conduct of Training and User Acceptance Tests of Equipment (UAT(E)) at the Customer's establishment. UAT(E) shall comprise of System and Interoperability Testing when the system's integration and compliance with NATO Federated Mission Network, Spiral 3[3], is to be evidenced.

e. Phase 5 – Support OpTEVal, and Build Batches 2 & 3. Following successful completion of the PSA, the OpTEval exercise plus production of Batches 2 & 3 are to be carried out concurrently. The Contractor shall provide consultancy type support to the TDCIS acceptance activity performed by the Customer during OpTEVal. Batches 2 and 3 shall be manufactured with a Factory Acceptance Test (FAT) carried out before delivery to the Customer Site.

f. Phase 6 – Achieve FSA. This Phase finalises the Project delivery. The phase will conclude when the Purchaser approves the FSA Report. Contractor Warranty shall commence on successful completion of the FSA, and shall last for a period of 2 consecutive years.

[3] All statements of FMN from hereon refer to its Spiral 3 iteration.

1.7 PURCHASER'S RESPONSIBILITIES

[22] The term "the Purchaser" means the NCI Agency or its authorised representatives. Where referenced standards, specifications, refer to "the Government", this shall be construed to mean "the Purchaser".

[23] The project's End User and Sponsor is the Portuguese Ministry Of Defence, referred to as the 'Customer' throughout this document.

[24] The Purchaser will deliver the TDCIS Project to the Customer.

[25] The Purchaser has a dedicated Project Manager (PM) assigned to TDCIS. This PM is responsible for the successful delivery of TDCIS, and is supported by Subject Matter Experts (SME) from Customer and Purchaser technical resources.

[26] The Purchaser's Contracting Officer will act as the Purchaser's representative and will be the primary interface for the Contractor.

[27] The Purchaser's PM will be the Contractor's operational Point Of Contact during the project, who will be supported by specialists who may, from time to time, be delegated to act on the Project Manager's behalf in their area of expertise.

[28] All changes to the Contract will be made through the Purchaser's Contracting Office only. Neither the Project Manager, nor any other NATO personnel may make changes to the terms and conditions of the Contract but may only provide the Purchaser's interpretation of technical matters. Changes will only be made via amendment to the Contract.

[29] The Purchaser will provide the Contractor with FMN technical interface descriptions for the purpose of determining specific interface requirements between the DCIS components and these systems.

[30] The Purchaser will make available to the Contractor the facilities necessary to test and demonstrate DCIS components compliance with required interfaces to existing NATO systems at the Portugal site.

[31] Documentation at Appendix B, are available via requests to Delegations.

[32] Commercially available documentation, detailed in Appendix B, will not be provided.

1.8 PURCHASER FURNISHED SERVICES

[33] The Purchaser will provide the Contractor with access to the Purchaser's Independent Validation & Verification (IV&V) toolset for the purposes of collaboration with the Purchaser's testing team.

[34] The Purchaser will provide 3 REACH laptops to the Contractor to use in working with the Purchaser's Project Management team, during project implementation This service provided will be charged to the Contractor. On completion of the project, these assets shall be returned to the Purchaser.

[35] Providing licenses for all Core Services and COI-specific services (FAS). The installation and configuration of these, using PFE configuration data, remains the responsibility of the Contractor;

[36] The Purchaser will provide Crypto key material for crypto and network access to the Customer's National CIS.

[37] The Purchaser will provide utility services[4] at the Customer's home Nation establishment. These are to support classroom training delivery and testing carried out, up to the successful completion of Preliminary System Acceptance (PSA). Any additional services[5] which may be required to support training delivery prior to PSA, will be the Contractor's responsibility.

[38] The Purchaser will provide suitable 24 V DC and 220 V AC supplies for the lifting jack kits, detailed within Annex A – System Requirements Specifications document.

1.9 PURCHASER FURNISHED EQUIPMENT

[39] The Purchaser will furnish the Contractor with the equipment detailed in Annex A – SRS and at Appendix B, which is to be integrated to and with the TDCIS.

1.10 CONVENTIONS

[40] The SOW and its Annexes shall take precedence over the Applicable Documents List in Appendix A of this SOW.

[41] This SOW invokes a variety of Standard NATO Agreements (STANAGs), Allied Publications, Military Standards (MIL-STDs) and International Standards.

[42] Where a national or international standard exists that is not specifically referenced in the STANAGs, Allied Publications, or MIL-STDs as being equivalent, the Contractor may propose to utilise such a standard if it can demonstrate to the satisfaction of the Purchaser that such a standard is equivalent to the STANAG, Allied Publications, or MIL-STD in question. The Purchaser, however, reserves the right to deny such a request and demand performance in accordance with the standard cited in the SOW.

[43] Requirements in the SOW are formulated using the word "shall". Context information supporting the requirements definition is provided using the form "will".

[44] "Shall" statements are contractually binding; "Will" statements are informative.

[45] Mandatory requirements in the SOW are preceded by a unique heading number, consisting of a prefix, followed by a number.

[46] Information or context information not conveying any requirement on the Contractor is preceded by a number heading in brackets, [xx], without prefix letters.

[47] Whenever requirements are stated herein to "include" a group of items, parameters, or other considerations, "include" means "include but not limited to".

[48] Whenever a cross-reference is made to a Section or paragraph, the reference includes all subordinate and paragraphs and cross-references therein.

[49] The order of the SOW requirements is not intended to specify the order in which they must be carried out unless explicitly stated. The SOW defines all of the activities the Contractor shall provide. The Contractor's approved programme implementation plans determine the actual timing of detailed Contrator activities .

[50] The convention to be used for dates appearing in free text (e.g. quoting dates of meetings) is day-month-year and not month-day-year.

[4] Water, electricity, gas & broadband.

[5] For example Satellite, Line Of Sight, Radio Frequency communication services, etc.

[51] For the purposes of clarity, all information presented in the delivery of this TDCIS Project shall be in written English.

1.11 OPTIONS

[52] The scope of the work includes a series of options which is to be costed by the Contractor and presented to the Purchaser for consideration in exercising these.

1.11.1 OPTION 1 – DEFERRED DELIVERY OF BATCHES

[53] Delivery of Batch 3 detailed in Table 1-2, is to be considered as options, under the terms & conditions detailed in Book 1. The selected bidder's pricing for these batches will determine if this option is exercised at the time of Contract Award, or their purchase will be deferred as given in Book 1.

1.11.2 OPTION 2 – IN SERVICE SUPPORT EXTENSION

[54] The Contractor shall provide a price to the Purchaser for an extension to the In Service Support, for a period of 15 years. This follows on from the end of 2 year warranty period provided by this project to TDCIS, and is to comply with the requirements detailed in this document.

2 SCOPE OF WORK

[55] The project scope is translated into a series of Work Packages (WP1 to WP7). Each Work Package (WP) is addressed in greater detail below.

2.1 PROVIDE SYSTEM DESIGN (WP1)

2.1.1 OVERVIEW

WP1-1 The TDCIS design shall cover the full scope of the TDCIS systems.

WP1-2 This design documentation shall separately identify the design for the operational (production) and training systems.

WP1-3 The scope of the design shall encompass all the components needed to achieve the capability, including:

1. CIS Hardware;
2. Software and licensing;
3. Tooling to manage and support the TDCIS;
4. Non-CIS hardware (e.g. transit cases, tents, etc.);
5. Test, verification and validation.

WP1-4 The design shall strictly follow the structure in which requirements are formulated in Annex A (SRS).

WP1-5 The design shall include the configuration of infrastructure and services, with information provided by the Purchaser.

[56] The implementation of the TDCIS consists of the assembly, connection, integration and configuration of Commercial off-The-Shelf (COTS) components, into bespoke systems that are fit for purpose of meeting the Purchaser's requirements and used in support of National and NATO expeditionary operations.

2.1.2 DEVELOP SYSTEM DESIGN PLAN

WP1-6 The System Design Plan (SDP) shall describe the Contractor's approach to implementing the System Design activities as detailed below.

WP1-7 The SDP shall identify all activities and deliverables and when they will be provided to the Purchaser, as the design progresses from the Configuration Capturing (CCAP), the System Requirements Review (SRR), High Level Design (HLD) to the Low Level Design (LLD).

WP1-8 The Contractor shall produce and manage effectively the Requirements Traceability Matrix (RTM) that supports the Design.

2.1.3 CONDUCT CONFIGURATION CAPTURE

WP1-9 In order to ensure full interoperability with existing PRT National Systems and NATO Federated Mission Network (FMN), the Contractor shall capture the configuration of

the corresponding assets and services, where possible, prior to starting any Low Level Design (LLD) activities after Preliminary Design Review (PDR), leading into Critical Design Review (CDR).

WP1-10 The Contractor shall produce a Configuration Capturing Plan (CCAP).

WP1-11 The configuration captures shall be used in direct support of the design activities, in the following terms:

1) Minimising the design risks by adopting current and proven configurations where possible, whilst fulfilling the characteristics within the SRS;
2) Ensuring that the services implemented by TDCIS are compatible and interoperable with those of the existing Customer and Purchaser organisations;
3) Understand the Customer's end user and Purchaser's maintenance and support organisation, and the process between the operational and maintenance levels to be achieved.

WP1-12 The Contractor shall ensure that their Configuration Capture (CC) activities fully aligns to the requirement as detailed in the Configuration Management Section 6.

[57] CCAP sessions may be organized as on-line meetings at the discretion of the Purchaser.

[58] Should additional configuration capturing activities be required following PDR, in support of the last design iteration before CDR, the associated level of effort and travel expenses shall be borne by the Contractor.

2.1.4 CONDUCT SYSTEM REQUIREMENTS REVIEW

[59] The System Requirements Review (SRR) is intended to assess the Contractor's understanding and interpretation of the all the requirements contained in the SRS.

[60] The SRS constitutes the Functional Baseline (FBL) of the TDCIS. Any updates resulting from the SRR become updates to the TDCIS FBL and will be managed by formal change process.

WP1-13 The SRR shall take place at Purchaser's premises, in the form of SRR meetings between the Contractor and the Purchaser or as on-line meeting at the discretion of the Purchaser, and should not take more than 1 week.

[61] During the SRR, changes to requirements, including updates or deletion of requirements that are no longer valid may be introduced by mutual agreement.

[62] The SRR is also intended to enable a first instance of the change process, for the Purchaser to introduce new requirements that were not contemplated at the time of writing this SOW. Such changes will be documented by the Purchaser in the form of Request for Changes (RFC), intended for the Contractor to produce an Engineering Change Proposal (ECP) in response.

WP1-14 The outcome of the SRR discussions shall be documented in the SRR Report. The SRR Report shall be initialized during the first day of the SRR and shall evolve during the SRR meeting.

WP1-15 The Draft SRR Report shall contain an updated Requirements Traceability Matrix (RTM).

WP1-16 The Draft SRR Report shall contain references to any ECP resulting from the SRR discussions.

WP1-17 A new SRS baseline incorporating all the changes to the original SRS agreed during the SRR meeting and documented in the Final SRR Report, shall be produced by the Contractor.

WP1-18 The Contractor shall produce the Final SRR Report and provide it as an Annex to the HLD, for review at the PDR meeting.

WP1-19 Following the approval of the Final SRR report at PDR the Contractor shall update the FBL. At this point the FBL shall be frozen and put under configuration control, with any change to the SRS (and thus the FBL) involving the formal change process.

2.1.5 DEVELOP DESIGN DOCUMENTATION

WP1-20 The Contractor shall produce High Level Design (HLD) documents, followed by Low Level Design (LLD) documents, to be submitted for the Preliminary and Critical Design Reviews (PDR and CDR), respectively.

2.1.5.1 HIGH LEVEL DESIGN DOCUMENT

WP1-21 The Contractor shall design, develop and deliver a HLD for the TDCIS Composition as seen in Table 1-2; this shall include, but shall not be limited to:

1) End to end Service perspective;
2) Overall architecture of the systems of systems;
3) Overall system breakdown structure down to component level, including their functions and interfaces;
4) Identification of high level CI's;
5) Interoperability with existing assets;
6) Implementation Constraints;
7) Project Master Test Plan (PMTP);
8) Defect Management Plan (DMP) identifying attributes & metrics which shall be used to determine if node types are integrated successfully to TDCIS; and also shall describe;
    a. Deal with failures identified during both hardware and software testing;
    b. Missing or damaged items received by the Purchaser during shipping;
    c. Deal with remediation that requires formal change process.
9) Support Case.
10) Annexes as a minimum:
    a. Final CCAP Report (provided with);
    b. Final SRR Report;
    c. Requirement Traceability Matrix (RTM).

WP1-22 The High Level Design shall address the availability, reliability, and maintainability requirements as detailed in Section 4.

2.1.5.2 Low Level Design Document

WP1-23 The Contractor shall evolve their HLD into a Low Level Design (LLD).

WP1-24 The Contractor shall ensure the LLD covers each derivation of the TDCIS Composition as seen in Table 1-2 of Section 1.

WP1-25 The Contractor shall incorporate into their LLD, the infrastructure and services configuration which has been derived from the SRR.

WP1-26 The Contractor shall ensure that the LLD encompasses all components needed to achieve the TDCIS requirements.

WP1-27 The Contractor shall ensure the details within the LLD shall include, but not be limited to:

1) Detailed subsystem and associated design specifications, inclusive of a presentable security architecture in compliance with NATO Security Policy, inclusive of the Technical and Implementation Directive on CIS Security (AC/322-D/0048-REV3) and Primary Directive on CIS Security (AC/35-D/2004-REV3), and in compliance with any relevant Portugal national security policy;
2) Hardware and software functional descriptions;
3) Component, subsystem and system-level:
    a. Performance calculations;
    b. Availability;
    c. Capacity, where applicable.
4) The justification for functional and performance allocations to various subsystems and components, in order to achieve the overall system-level requirements, per subsystem;
5) The methodology for the identification and resolution of technical problem areas that may develop at system or subsystem level, during design, production, installation and testing;
6) Identification of internal (intra-nodal) and external interfaces throughout the system to ensure interface compatibility, with special focus on the interfaces to the (external) PFE elements;
7) Engineering drawings, including hardware physical installations, connectivity to other components, power cooling;
8) Technical reviews and reports;
9) Test, Verification and Validation matters to include:
    a. Requirement Traceability Matrix (RTM);
    b. Test Plan for each Test Phase. Each Test Phase shall have one or more events supporting the coverage required, as stated in RTM.

WP1-28 The LLD shall go down to the Configuration Item level. In this context, Configuration Items (CI) shall be defined based on ACMP-2009 specifications and presented for

Purchaser approval, and shall be grouped under each subsystem identified in the system breakdown as defined in the HLD, for each of the Nodes types.

WP1-29 In addition the Contractor shall ensure the LLD also contains, as a minimum:

1) A link to the Requirements Traceability Matrix (RTM), matching System Requirements (as per the SRS) to entries of the LLD, and to test procedures in the Project Master Test Plan (MTP). This update shall reflect any changes effecting the original RTM proposed by the Contractor in his Bid.
2) Definition of the Configuration Items (CIs), as applicable;
3) The Low Level Design documents of each CI;
4) Initial security design documentation (based on the system-level and functional-level Security Requirements);
5) Detailed engineering drawings;
6) List of software licensing, support and warranty agreements, if and where applicable.

WP1-30 For each CI, the Contractor shall ensure the LLD also includes:

1) Allocated functional and non-functional requirements, as derived from the overall requirements specified in the SRS;
2) CI specifications, including drawings, schematic diagrams, models, manuals and other data as appropriate.

WP1-31 For any Transit Casing, the Contractor shall ensure the LLD includes:

1) Transit Case layout plan, covering all communications, information systems, cabling, and power supply equipment and distribution in the TC;
2) Electrical safety systems;
3) Environmental Control Unit (ECU) budget calculation, as applicable;
4) Power budget calculations;
5) Estimated weight budget.

WP1-32 The Contractor shall ensure that the LLD they produce is subject to review and acceptance by the Purchaser. The acceptance of the design shall not absolve the Contractor from the responsibility of meeting the requirements and providing a fit for purpose and fit for use capability; and shall be kept up to date with all amendments.

WP1-33 It shall remain the sole responsibility of the Contractor to prove the design through their testing regime, and it will be the sole responsibility of the Contractor in the event that the design proves deficient in terms of the Contract functional and/or performance requirements.

WP1-34 In the LLD sufficient detailed information and test data (at component and subsystem level) shall be provided to assure the Purchaser that all functional and non-functional requirements have been achieved, or have been modified to achievable limits, always without prejudice to contractual specifications.

[63] Annex A to this Statement Of Work, the System Requirement Statements (SRS) provides Functional Description and Technical requirements. The Functional

Descriptions are at system-level, whereas the Technical Requirements are provided down to subsystem-level.

WP1-35 The requirements provided in the SRS at subsystem level include implementation constraints that the Contractor shall adhere to when preparing the LLD.

2.1.6 CONDUCT SYSTEM DESIGN REVIEWS

WP1-36 The Contractor shall conduct System Design Reviews that are fully cognisant to the end to end design of TDCIS. The reviews shall:

1) Verify the correct allocation of SRS requirements to system design specifications and to verification methodologies, as documented by the Contractor in the RTM; and
2) Verify and approve the overall design proposed by the Contractor;
3) Verify and approve the overall verification and validation approach proposed by the Contractor.

WP1-37 The Contractor shall support two System Design Reviews (Preliminary and Critical, PDR and CDR respectively).

WP1-38 The Contractor shall design and maintain configuration baselines defined at Section 6, throughout the performance period of the project.

WP1-39 The Contractor shall be responsible for maintaining consistency between the configuration baselines throughout the project. Any updates or changes shall be formally introduced with full revision control.

2.1.6.1 PRELIMINARY DESIGN REVIEW

WP1-40 The Purchaser shall facilitate at their premises', or by alternative means if necessary, a system design review as part of the Preliminary Design Review (PDR). The review may take place also at the Contractor's premises if approved by the Purchaser.

WP1-41 At the PDR, the Contractor shall ensure they present all Project Management, Configuration Management, Quality Assurance and System Design Plans, and any other information as detailed within CLIN 1 of the Schedule of Supplies & Services (SSS). PDR shall not be successfully closed before these plans are approved by the Purchaser.

WP1-42 The High Level Design (HLD) shall be submitted to the Purchaser, 2 weeks before the PDR event.

WP1-43 The HLD shall be updated, based on the Purchaser's comments and the decisions reached at the PDR Meeting.

WP1-44 During the PDR event, which is expected to last no longer than 1 week, the Contractor shall update the HLD based on the agreed changes during the meeting.

WP1-45 The Contractor shall formally submit the updated HLD within a week of the completion of the PDR meeting.

2.1.6.2 CRITICAL DESIGN REVIEW

WP1-46 The Purchaser shall facilitate at their premises', or by alternative means if necessary, a system design review as part of the Critical Design Review (CDR). The review may take place also at the Contractor's premises if approved by the Purchaser.

WP1-47 The Critical Design Review (CDR) shall be devoted to reviewing and approving the LLD submitted by the Contractor 2 weeks earlier before the CDR event, in line with CLIN 1 of the SSS.

WP1-48 During the CDR event, which is expected to last no longer than 1 week, the Contractor shall update the LLD based on the agreed changes during the meeting. The Contractor shall formally submit the LLD within a week of the completion of the CDR meeting.

WP1-49 At CDR, the allocation of SRS requirements to system design specifications and to verification methodologies will be assessed and will be subject of approval by the Purchaser.

WP1-50 The LLD at CDR shall document and demonstrate a proof of concept for the transit cases sought for the various CIS Modules of the TDCIS and environmental control capabilities.

WP1-51 The approval of the LLD by the Purchaser at CDR shall in no way relieve the Contractor of their responsibilities to achieve the contractual and technical requirements of this SOW and SRS.

WP1-52 Approval of the LLD at the CDR, and for those areas that are not subject of further revisions and changes, shall trigger the Contractor to identify long-lead items required by the First Articles systems.

WP1-53 The Contractor shall seek Purchaser approval before placement of order equipment.

WP1-54 Approval of the LLD at the CDR will trigger the following:

1) The assembly of the First Article systems;
2) The delivery by the Purchaser of any PFE required to assemble the First Articles systems, as well as any configuration details required to enable the preparation of the FAT.

2.2 QUALIFY FIRST ARTICLES (WP2)

[64] A first instance of each TDCIS node type, hereafter referred to as the First Article, including the set of non-CIS elements supporting those nodes, is to be qualified at the factory, prior to any release in support of the Independent Verification and Validation Assessment (refer to WP5).

WP2-1. The Qualification of the First Articles shall include all node types.

WP2-2. The Contractor shall submit to the Purchaser, the testing scenarios to support the system Validation to the Purchaser's approval during CDR. Each scenario shall clearly identify the quantity of personnel, skill sets and task durations. In addition,

the Contractor shall make necessary adjustments and improvements to the scenarios the Purchaser may recommend through an iterative review process.

WP2-3. The Contractor shall execute TDCIS component, equipment and system[6] testing, forming the design verification testing, including PFE provided by the Purchaser to the Contractor.

WP2-4. The Contractor shall, as part of the design's verification, carry out TDCIS component and integration testing at their premises.

WP2-5. The Contractor shall conduct User Acceptance Testing, comprising of Equipment, System and Interoperability tests, shall be carried out at the Customer's establishment, completing system verification testing.

WP2-6. The Customer is responsible for TDCIS validation, but shall be supported by the Purchaser and Contractor on a consultancy basis during all validation tests prior to successful completion of FSA. These validation tests are to demonstrate TDCIS being fit for purpose. TDCIS validation testing will be referred to as Operational Technical Evaluation (OpTEVal).

2.2.1 TESTING APPROACH

WP2-7. The Contractor shall ensure their testing approach allows for the Purchaser to witness verification activities on the Node 'Key Modules'. Based on:

1) A full and compherensive Project Master Test Plan (MTP);
2) Development of a full and adequate Requirements Traceability Matrix (RTM) that will cover also the traditional approach expected to fulfil requirements at Section 8. Moreover, the contractor shall ensure an adequate strategy to implement the right development, maintenance and migration processes applicable to RTM. Furthermore, the Contractor shall document in the MTP, the contractor's strategy to be used in addressing all the matters and processes to ensure the whole Test, Verification and Validation approach;
3) Confirmation that the fabrication and operation of the equipment is fit-for-use;
4) The documentation satisfies the operation and the in-service materiel management is fit-for-purpose, meeting the needs of the User.

WP2-8. The Contractor shall ensure that their test approach and test strategy as documented within the MTP for the Qualification of First Articules including all node types (refer to WP2-1), illustrates how the System Administration Guide (SAG) is to be developed, maintained and tested during the course of the delivery, to include the following, but not limited to:

a. System Release Notes;
b. Test Scripts for each of the FAT/SAT test sequences;
c. Role Based Access Control (RBAC) measures;
d. System Configurations;
e. Mission data sets shall prove that the TDCIS can be configured with an initial mission data set, and during System Acceptance Tests (SAT) the Contractor shall ensure that all testing replicates mission data set configuration;

[6] incorporating integration and interoperability testing

f. Plan for batch or patch release of software;

g. Regression testing;

h. A process for Deficiency Reporting, and formal changes for remediation activity planned into the Build Cycle.

2.2.2 SYSTEM VERIFICATION APPROACH

WP2-9. The Contractor shall ensure that, on completing construction of the first of each node type, the Contractor shall produce As-Built drawings and equipment specifications for each and shall establish the Product Baseline (PBL) at the successful completion of the FAT and the Purchaser will review for completeness and accuracy before delivery to the Purchaser.

WP2-10. Agreements achieved for any baselined documentation shall not preclude the Purchaser to require modifications as a result of failures or non-conformances detected at test events. The Contractor remains fully responsible for the technical definition and in satisfying the technical requirements of this SOW.

WP2-11. The Contractor shall ensure that any equipment is restored to its initial state at the end of any Test, Verification and Validation activity, inclusive after the execution of the relevant Security Testing and Verification Plan(s) as part of the Security Accreditation Process, as well as any Security Audits that may be conducted.

2.2.3 BUILD FIRST ARTICLES

WP2-12. First Articles shall encompass both the infrastructure of a TDCIS Node, including the set of non-CIS elements supporting those nodes, as per the following paragraphs.

WP2-13. First Articles shall be built as per the LLD that was approved at CDR.

WP2-14. First Articles shall be subject of the following test events:

1) Qualification Tests (QT);

2) Factory Acceptance Tests (FAT).

WP2-15. The production of the First Articles shall be preceded by Engineering Tests (ET) to be conducted at the discretion of the Contractor.

WP2-16. The Purchaser shall be entitled to witness Engineering Tests and access to all Engineering Test Reports.

WP2-17. Shipment and receipt of any PFE components shall not be a pre-condition for the Contractor to:

1) Integrate the subsystems without those devices, and conduct the FAT;

2) Integrate the 1st article systems without those devices, and conduct a limited FAT, the scope of which would be agreed with the Purchaser.

WP2-18. Any PFE Cryptographic Controlled Items (CCI) required in support of ET and QT shall be requested by the Contractor not later than 16 weeks prior to the tests in order to allow for transport by crypto channels.

WP2-19. The Contractor shall ensure that in their planning, the access to and use of Crypto will be carried out within the Customer's home Nation.

WP2-20. Any Cryptographic equipment shall be transported through secure channels to the Contractor. The Contractor shall manage, use and store these assets in

accordance with Customer Nation regulations. The Purchaser will carry no shipments of crypto devices to the Contractor`s premises.

2.2.4 CONDUCT QUALIFICATION TESTING

WP2-21. Qualification Testing shall be performed on both CIS and non-CIS elements, and shall encompass, Qualification Phase as shown in Table 8-1 without exception.

WP2-22. All Qualification Tests shall be performed with all components (including PFE crypto) physically integrated.

WP2-23. An authorized technical surveillance authority shall approve the mechanical and electrical safety of the units under test.

2.2.5 CONDUCT FACTORY ACCEPTANCE TEST

WP2-24. Factory Acceptance Testing shall be performed following the test regime detailed in Section 8.

WP2-25. FAT is to be carried out by the Contractor, on the Integrated TDCIS System, at the Contractor's build facility, referring to the Factory Acceptance Phase given at Table 8-1.

WP2-26. The Contractor shall provide the Purchaser with access to these events, enabling their SMEs to determine how the individual nodes operate as independent nodes.

WP2-27. The Contractor is to conduct a FAT for all Batch 1 nodes and associated non-CIS equipment.

WP2-28. There is a Purchaser expectation that FAT can be completed by simulating RBAC Dummy Accounts, IP Addresses and Network Capability; with the fidelity of simulation being addressed in the Contractor's MTP.

WP2-29. The Contractor shall ensure that the FAT demonstrates:

a. Each module (system) is successfully integrated at subsystem and component levels and can communicate with other modules within a given TDCIS node type;

b. Each node (collection of modules) is successfully integrated at system (module) level and can communicate with other TDCIS nodes;

WP2-30. In addition the Contractor shall ensure that the FAT verifies the following, with the First Articles installed at the Contractors test environment:

a. Functionality of the various subsystems integrated in each of the network modules of each node, including:

   i. Protected Core Access (PCA);

   ii. Coloured Cloud Access (CCA);

   iii. Multi-Media Access (MMA);

   iv. Boundary Protection System (BPS);

   v. Local Area Network Subsystem (LAN);

b. Uninterrupted Power Supply (built-into Remote Node modules).

c. Functionality of the transmission bearers (this may be simulated in the Contractor's build-facility);

d. Interfaces within each of the modules (between subsystems), including subsystems outside the module (e.g. radio fits or simulation thereof);

e. Intra-nodal connectivity, i.e. testing of the interfaces between the various modules that make each TDCIS Node.

WP2-31. The Contractor shall also verify:

a. Any software-defined Virtualisation;

b. Any software-defined Automation process;

c. Application-consistent backup and subsequent restore of VM running application supporting Microsoft VSS;

d. Virtual desktop hosting;

e. Deployable Removable Storage (DRS) Subsystem;

f. Automated graceful shutdown at UPS battery low state.

WP2-32. Factory Acceptance Testing shall further verify the functionality and performance of all non-CIS elements specified in SRS.

WP2-33. One of each node in Batch #1 shall go through First Article Test and the rest of the Batch # 1 units shall go through an subset of the Factory Acceptance Testing test cases (WP2) approved by the Purchaser.

2.2.6 SHIP FIRST ARTICLES

WP2-34. Upon the Purchaser approval of the FAT Report, the Contractor shall ship First Articles from the factory to the Purchaser's designated location (see SSS) in accordance with the Packaging, Handling, Storage and Transportation requirements detailed in IPS Section 4.8.

WP2-35. If required for rectification of non-compliances or deficiencies found during WP5, the Contractor shall be responsible for shipping all Batch 1 First Article systems from the Customer's premises back to the build factory. This will require shipping the First Articles system(s) back to the Customer's location, for regression testing, at no expense to the Customer and, or the Purchaser.

2.3 SUPPORT SECURITY ACCREDITATION PROCESS (WP3)

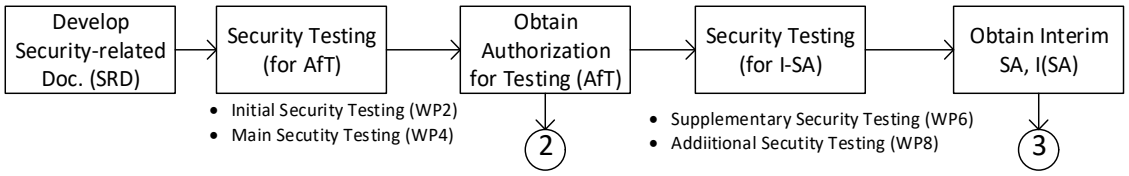
2.3.1 OVERVIEW

[65] TDCIS is to be capable of operating with the Customer's National CIS and those forming a NATO FMN. The latter will be compliant with SPIRAL 3 variant.

WP3-1 The security accreditation process established by the Security Accreditation Authority (SAA) shall be followed.

[66] The activity flow for the Support to the Security Accreditation process under WP3 is provided in the figure below and described in the paragraphs hereafter.

Figure 2-1 Activity Flow for WP3 - Security Accreditation Process



WP3-2 The Contractor shall support the Purchaser in providing information and documentation to the Customer's National SAA, in acquiring accreditation for TDCIS to connect and operate with the Customer's National CIS. The National SAA will also determine if the TDCIS is compliant with NATO SAA directives, for TDCIS connection to and operation with NATO FMN.

[67] Section 9 herein, details the Security Accreditaiton requirements for NATO FMN. Following Contract Award, the Purchaser will provide the Contractor with any additional or varying Security requirements for National SAA.

WP3-3 The Contractor shall develop initial version of the Security Accreditation Plan (SAP) for the TDCIS, under supervision of the relevant Purchaser technical authority SME. The SAP shall identify all Security-related Documentation (SRD) deliverables and their timing. The Contractor shall strictly adhere to the security accreditation activities described in the SAP as approved by the SAA. All activities related with the security accreditation process shall be identified in the respective Project Implementation Plan (PIP) and in the Project Management Plan (PMP).

2.3.2 SECURITY ACCREDITATION APPROACH

WP3-4 The Contractor shall follow the Security guidelines as detailed herein.

WP3-5 The Contractor shall follow the following security accreditation principles as established by the SAA, which shall follow:

a. The primary objective of security accreditation is to ensure that the required level of protection is achieved and maintained throughout its life cycle;

b. An initial version of the Security Accreditation Plan (SAP) which will identify all Security-Related Documentation (SRD) deliverables and their timing.

c. Alignment to the Customer's National SAA;

d. Strict adherence to the security accreditation activities described in the SAP as approved by the SAA.

[68] The Customer will be the Operational Authority for TDCIS, while the Customer's National SAA will be the accreditation authority responsible for:

a. authorising TDCIS connecting with the Customer's National CIS;

b. ensuring compliance with NATO policies for TDCIS connection with NATO FMN, SPIRAL 3 version[7].

WP3-6 The Contractor shall support NATO Security Accreditation, by developing all nessary security accreditation documentation for review and input by the relevant Purchaser's technical authority (the NATO Cyber Security Centre's Accreditation Support Office); this technical authority shall coordinate formally with the relevant

[7] All references to Federated Mission Networks and FMN in this SOW are for the SPIRAL 3 version

NATO SAA for approval of the documentation; NATO accreditation is required by the TDCIS in order to process and store NATO classified information communicated across the FMN.

WP3-7 The Contractor shall ensure the TDCIS architecture is configured, deployed and operated in compliance with the security requirements and policies of the Customer's National and NATO SAA, and shall endeavor best effort to accommodate security requirements implementation as advised by the relevant purchaser's technical authorities .

WP3-8 The achievement of security accreditation for TDCIS is related with development and SAA approval of necessary Security-Related Documentation (SRD). The Contractor should expect a number of review rounds per document before it will be approved.

WP3-9 The Contractor shall take into account any comments from the Purchaser's reviewers and any formal feedback from the NATO SAA, as communicated to the contractor by the Purchaser's reviewers and shall update the documents as necessary in order to gain SAA approval of the SRD.

WP3-10 The SRD shall be presented by the Contractor to the Purchaser, which will manage and ensure submission and evaluation to and by the NATO SAA, including but not limited to a formal presentation which may require the presence of the Contractor's relevant SMEs, as determined by the Purchaser's technical authority. The location of this presentation shall be defined by the Purchaser and shall typically take place at the Purchaser's facility.

WP3-11 Coordination with the SAA will be conducted by the Purchaser. The Contractor might be invited to provide briefings and/or technical expertise for meeting(s) with the SAA.

WP3-12 The SAA might give advice and guidance to the Contractor (through the Purchaser's Project Manager or any delegated technical authority) on any security implication or any proposed change based on the findings and results of the assessments and/or security tests. The Contractor shall assess the necessary work required to follow the advice given by the SAA and will liaise with the Purchaser's Project Manager for its implementation.

WP3-13 It is the overall responsibility of the Contractor to develop an appropriate TDCIS system design and security-related documentation in order to achieve security accreditation of the TDCIS. The design of the TDCIS and the SRD deliverables shall be compliant with Security Policies and Directives presented in this SoW, as well as any additional security requirements arising from substantive security concerns presented by the SAA, and/or emerging from the Security Risk Assessment, and established as conditional for formal acceptance of the SRD and the design.

WP3-14 The SRD should be developed in parallel to appropriate deliverables under all the WPs concerned, and within the timeline as per this SoW.

WP3-15 In support of producing the deliverables the Contractor shall closely engage directly with representatives of the Purchaser and/or SAA (through the Purchaser) in order to discuss particular security-related requirements but also to clarify and/or enhance the documentation to be provided as part of the Security Related Documentation. All formal feedback from the SAA which is presented to the Contractor by the Purchaser as relevant, shall be taken as such by the Contractor and the Contractor shall endeavor to accommodate the design, implementation and process, as required, to best integrate such formal feedback.

WP3-16 Initial versions of the CIS Description, Security Risk Assessment and System-Specific Security Requirements Statement shall be developed and released by the Contractor by the same time as the HLD (refer to WP1). Initial versions of CIS Description, SRA and SSRS shall fully reflect the TDCIS architecture as depicted in the HLD.

WP3-17 Initial versions of CIS Description, SRA and SSRS shall be reviewed during the Preliminary Design Review (PDR) under the same regime as the HLD.

WP3-18 Final versions of CIS Description, SRA and SSRS shall be produced and released by the Contractor in parallel to the LLD, which shall feed into these documents, and shall be also reviewed during the Critical Design Review (CDR).

WP3-19 Initial versions of SecOPs, Security Test and verification Plan (STVP) and Generic System Interconnection Security Requirement Statement (SISRS) shall be developed and released by the Contractor by the same time as Factory Acceptance Testing (FAT) scripts, in preparation for the initial security testing to be performed as part of the FAT under WP2.

WP3-20 Final versions of SecOPs, STVP and Generic SISRS shall be developed and released by the Contractor not later than 4 weeks prior to the start of Independent Verification and Validation activities to be performed under WP5.

WP3-21 SRD (especially SecOPs) might require further updates as recommended by the Contractor based on the observations and lessons learned gathered during security tests and/or Operational Test and Evaluation (OpTEval). The contractor shall update SRD as required. New versions of every single security-related documentation shall be approved by the SAA.

WP3-22 In order to enable Independent Verification and Validation activities, which include Security Testing at Purchaser's premises, the Contractor shall provide Approval for Testing (AfT) Request. The AfT Request shall be released by the Contractor not later than 2 weeks prior to the tests.

[69] AfT request will be subject to SAA approval. The AfT will be granted prior to the Independent Verification and Validation Assessment, which includes security testing.

WP3-23 The Contractor shall conduct security testing in accordance with SAA approved STVP.

2.3.3 SECURITY ACCREDITATION DOCUMENTATION SET

WP3-24 Prior to Phase 4, the Contractor shall deliver to the Purchaser the complete Securiy Related Documentation (SRD), that covers the entire system covering and reporting upon all nodes and shelters. The descriptors should be supported with the documents listed at Section 9, regarding TDCIS and its integration and operation with National and NATO CIS.

2.3.4 SECURITY ACCREDITATION APPROVAL

[70] The granting of TDCIS Security Accreditation is necessary to grant the Authority To Operate (ATO). However, for pressing operational deployments, Interim Authority to Operate (IATO) can be issued by the National SAA for TDCIS connection to National CIS. But the Contractor must demonstrate to the National SAA that efforts continue in parallel to achieve ATO.

WP3-25 In the event IATO is required to be used to meet their operational deadlines, the Customer, as the Operational Authority, shall seek from the Contractor (via the Purchaser), the appropriate documentation to support their validation of TDCIS residual risk[8], in its connecting with National CIS. It remains, NATO ATO shall still be required for TDCIS connection with NATO CIS (FMN), permitting NATO classified information to be processed by and stored within TDCIS. It is therefore imperative that the Contractor shall make concurrent efforts in acquiring National and NATO ATO for TDCIS.

WP3-26 Using National and NATO SAA approved document templates, and others as might be required, the Contractor shall produce, complete and manage a full SADS in order for the respective SAA to consider TDCIS for accreditation.

WP3-27 With support from the Purchaser, the Contractor shall provide evidence and necessary documentation to the Customer Nation's National SAA, enabling TDCIS to be accredited in line with the process at Figure 1.

WP3-28 Security documentation shall include artefacts designed to enable the testing and operation of TDCIS within the Customer's National, and NATO operational domains. Certifications to be acquired are:

a. Interconnectivity to NATO Environments;

b. The Safe processing of NATO Classified Data;

c. Interconnectivity to the national PRT Environment;

d. Approval for Testing (AfT): This is to be acquired prior to the start of any verification testing at the Customer's establishment, noting that this certification is not for user testing, it is for any testing prior to operational use;

e. Approval To Operate (ATO): ATO is to be achieved prior to the start of OpTEval;

f. Approval To Circulate (ATC): This is to be achieved by completion of OpTEval.

2.3.5 SECURITY RELATED RESPONSIBILITIES

[71] Table 2-1 below summarises responsibilities related to the development of each security document given at section 9, required for security accreditation process.

[72] The column "Baseline/Guidance" lists available templates, relevant NATO Security Directives and Guidance, and similar documentation.

WP3-29 The Contractor shall undertake the work identified in the column 'Contractor Responsibility' in Table 2-1.

Table 2-1 Security Accreditation Related Responsibilities

Document	Baseline/Guidance	Contractor Responsibility (The Contractor shall:)	Purchaser Responsibility
SAP	SAP template	Develop and update SAP	Coordination with the SAA

[8] On TDCIS achieving National ATO, the residual risk(s) are transferred to the National SAA.

Document	Baseline/Guidance	Contractor Responsibility (The Contractor shall:)	Purchaser Responsibility
CIS description	CIS description template	Based on the design adjust it to the CIS description template focusing on security aspects Develop CIS description	Provide applicable documents, templates and guidance to the Contractor Review Coordination with the SAA
SRA	[AC/35-D/1015] [AC/35-D/1017] Tool for formal SRA: NATO PILAR SRA Report template	Conduct SRA Provide the inputs to the SRA per system design. Provide assets identification. Provide safeguards (technical and organizational measures – information security) identification and valuation. Develop SRA Report	Support Contractor in conducting SRA Review Coordination with the SAA
SSRS	[AC/35-D/1015]	Develop SSRS Provide technical input to SSRS	Provide SSRS template to the Contractor. Indicate SSRS sections to be completed by the Contractor. Complete remaining SSRS sections. Provide guidance to the Contractor. Review Coordination with the SAA
SecOPs	[AC/35-D/1014]	Develop Sec OPs for users and system administrators	Provide Sec OPs template to the Contractor. Indicate Sec OPs sections to be completed by the Contractor. Complete remaining Sec OPs sections.

Document	Baseline/Guidance	Contractor Responsibility (The Contractor shall:)	Purchaser Responsibility
			Provide guidance to the Contractor. Review Coordination with the SAA
STVP	[AC/35-D/2005] STVP template	Develop STVP The STVP shall refer to SSRS Develop detailed STVP test procedures Execute STVP	Provide template and guidance to the Contractor Review Coordination with the SAA Witness the testing conducted by a contractor

2.3.6 SECURITY ACCREDITATION TESTING

WP3-30 The Contractor shall conduct vulnerability and penetrative Security Testing, producing the necessary Security Test and Verification Reports (STVR) to enable the National and NATO SAA to issue a validated statement, for the approval certificates above. The STVR shall conform with Section 9.11.

WP3-31 The following instances of security testing shall be conducted in support of the accreditation process of the TDCIS:

Table 2-2 Instances of TDCIS Security Testing

Test Instance	When	Purpose
Initial security testing	Under FAT (WP2)	To verify compliance to identified CIS security requirements.
Main security testing	Under IV&V Assessment (WP5)	To verify implementation of identified CIS security requirements and associated security mechanism and check the readiness to receive Deployment Authority. These tests include Penetration Testing, Vulnerability Testing.
Supplementary security testing	During OpTEval (WP7)	To verify implementation of all those CIS security requirements and associated security mechanisms which were either not able to be verified during main security testing (for example all tests which would require interconnection in order to be executed) or where not successfully completed during main security testing.

Test Instance	When	Purpose
Additional security testing	During OpTEval (WP7)	To verify implementation of all those CIS security requirements and associated security mechanisms which were not successfully completed during all above security tests sessions. The understanding is that none or only very limited amount of security tests should be tested during additional security testing.

WP3-32 Security testing will be witnessed by the Subject Matter Expert (SME) designated by the Purchaser. The SME is to countersign respective Security Test and Verification Reports (STVR).

WP3-33 The Contractor shall complete the Electronic Security Environment (ESE) Conformance statement (ESECS) form for every TDCIS node, and provide this to the Purchaser prior to the Tempest Testing of the First Article, as part of Qualification Testing (WP2).

WP3-34 The ESECS form, for testing of the First Article, shall be released by the Contractor not later than 4 weeks prior to the tests.

WP3-35 ESECS form for the other TDCIS nodes shall be released by the Contractor as part of the deliverables.

WP3-36 The Security Test and Verification Reports (STVR) listed in Table 2-3 shall be released by the Contractor after each Test Instance identified in Table 2-2.

Table 2-3 Aft and I(SA) enablers

STVR from	In support of	To occur at
Initial Security Testing conducted during Factory Acceptance Testing (WP2) at the Contractor's premises (Factory)	AfT for System Integration Test (SIT) under IV&V Assessment (WP5)	Purchaser's premises
STVR resulting from Main Security Testing conducted during IV&V Assessment (WP5)	AfT for OpTEval (WP7)	Purchaser's premises
STVR resulting from Supplementary Security Testing conducted during IV&V Assesment (WP5) in a Customer location	Interim Security Accreditation (I(SA)) for OpTEval (WP7)	Exercise venue
STVR resulting from Additional Security Testing during OpTEval (WP7) in an exercise venue.	I(SA) for FSA	Operational Theatre

WP3-37 STVR (after the last instance of security testing at OpTEval) shall be developed and released by the Contractor not later than 4 weeks prior FSA. This is to enable issuance of updated (I)SA for the TDCIS.

WP3-38 All identified CIS security related deficiencies under Contractor responsibility shall be either fixed by the Contractor or waived by the Purchaser.

2.3.7 SECURITY DEFECTS LOG

WP3-39 The Contractor shall present a plan to the Purchaser, for the Contractor's resolution of defect log entries associated with risks preventing TDCIS accreditation. The Contractor shall not proceed to PSA until a credible plan for their making good security risks identified in the STVR by FSA, is presented to the Purchaser. All defects identified by the Purchaser within this plan shall be resolved by the Contractor, prior to the FSA.

2.3.8 GENERAL SECURITY ASPECTS

WP3-40 The Contractor's premises shall be able to handle information up to and including NATO SECRET.

WP3-41 The Contractor shall ensure that all information items used in support of the execution of the project shall be protectively marked in accordance with their content and handled accordingly.

WP3-42 The Contractor shall ensure that all Contractor and Sub-Contractor personnel that shall work for this Project, have at a minimum, a current NATO SECRET clearance as required by NATO policy.

WP3-43 The Contractor's premises employed in implementing this project shall be approved by their Government and the Customer's home Nation authority to receive, handle and store cryptographic material.

WP3-44 In accordance with NATO Security Policy, inclusive of the Directive on CIS Security, access to Cryptographic Material can only be provided on a strictly-need-to-know basis, for staff in possession of a valid/active NATO Cosmic Top Secret (CTS) security accreditation,

WP3-45 The Contractor shall follow the Purchaser site access procedure to gain access to the site for the conduct of Project business. The Contractor shall allow time in their planning to achieve this.

WP3-46 The Contractor shall liaise with and follow the Customer's project sites access procedures, in order to gain entry for project related meetings and activities.

WP3-47 The Contractor shall notify the Purchaser's PM of their attendance to Customer sites, for the purpose of project related meetings and, or activities. The Purchaser's PM is to be notified no less than 3 weeks in advance of the occasion.

2.4 CONDUCT TRAINING (WP4)

2.4.1 OVERVIEW

[73] This WP addresses the specific training requirements of this project. The purpose of these requirements is to ensure that the Contractor provides high quality training materials, courses and trainers.

[74] The objective is also to ensure that the development of training materials and courses (and also of manuals) are based on the outcomes of a task analysis and hence cover the right operation and maintenance tasks.

WP4-1 Training shall be provided on all CIS and Non-CIS components, CIS ancillaries and software, but NOT on PFE, such as crypto equipment and general use software, radio stations. However, training shall cover the system specific interfaces to any external systems (e.g. external power system) and PFE.

WP4-2 All training media, publications, plans and supporting documentation shall be the property of the Purchaser who shall pass on this training media to the end user.

WP4-3 All training material delivered under this contract shall be subject to review and approval by the Purchaser.

WP4-4 The Contractor shall deliver to the Purchaser a complete draft of all training material no later than 20 working days in advance of each course.

WP4-5 At least 2 weeks prior to the start of any course the Contractor shall provide written notification that all required training equipment and other resources are ready for the commencement of the Training Course.

2.4.2 TRAINING PLAN

WP4-6 The Contractor shall deliver a Training Plan (TP) as a part of the PIP and PMP. The TP shall be delivered in accordance with Section 4.10.

2.4.3 TRAINING NEEDS ANALYSIS

WP4-7 The Contractor shall develop for Purchaser acceptance, a Training Needs Analysis (TNA) with an appropriate Media Analysis. The Training Needs Analysis (TNA) shall be produced in accordance with the Bi-SC Directive 075-007 and in accordance with Section 4.10.

2.4.4 TRAINING COURSEWARE AND MEDIA

[75] This Section addresses the general training requirements applicable to this project. The purpose of these requirements is to ensure that the Contractor provides high quality training materials, courses and trainers. Training material and delivery shall meet the training Accreditation Requirements of the Purchaser as defined in BiSC 075-007 directive.

WP4-8 The Contractor shall provide Training Material and all related training documentation in the English language. Training shall be able to accommodate Purchaser students with an English language skill level of 2222 (STANAG 6001).

WP4-9 The Contractor shall design their training courseware and media in accordance with section 4.10.

2.4.5 INSTRUCTOR MANUAL

WP4-10 The Contractor shall deliver an Instructor Manual for Approval 3 weeks prior to the start of training. The Instructor Manual shall be in accordance with Section 4.10.

2.4.6 TRAINING COURSES

WP4-11 The Contractor shall ensure that Training Course Modules are established in a logical manner which can be passed onto the Purchaser at the end of a successful training phase; see Section 4.10.

2.4.7 TRAINING EVALUATION

WP4-12 Training evaluation is an important function of the overall training delivery, as such the Contractor shall adopt an evaluation process as per Section 4.10.

2.4.8 TRAINING TIME FRAMES

WP4-13 The Contractor shall ensure that their Training Timeframes follow the requirements as detailed in Section 4.10.

2.4.9 TRAINING LOCATIONS

The Contractor shall deliver all planned training within or in the proximity of the Customer's Portuguese establishments.

2.5 CONDUCT INDEPENDENT VERIFICATION AND VALIDATION ASSESSMENT AND PSA (WP5)

[76] The Independent Verification and Validation (IV&V) Assessment will feed the Agency Change Management Process in order to obtain authorization to integrate and deploy the PRT TDCIS on to NATO and Customer networks, also referred to as Deployment Authority. Obtaining the Deployment Authority is a pre-requisite to undergo Production (WP6).

WP5-1 The Contractor shall conduct User Acceptance Testing of Equipment (UAT(E)) within, and or, inside a 50 Km radius from the Customer's Portuguese establishment.

[77] As part of the Change Management process, the Purchaser's IV&V Assessment will start after receipt of First Articles following the completion of the Factory Acceptance Tests. Section 8 details the IV&V Assessment activities to be supported by the Contractor, consisting of:

1) System Integration Testing (SIT);
2) User Acceptance Testing (UAT);
3) Security Testing, also referred as Main Security Testing instance in WP3, including Penetration and Vulnerability Testing;
4) System Acceptance Testing, consisting of tests focused on ensuring compliance with the requirements outlined in this SOW.

[78] After the successful IV&V Assessment, the Purchaser will submit a Request for Change (RFC) for the screening by the Change Advisory Board (CAB). The CAB may require further tests.

[79] The CAB will comprise of the Purchaser's Commercial Officer, plus the Project Managers, Technical Leads, Service Delivery from the Customer, Purchaser and Supplier. The CAB will be supplemented by key Subject Matter Experts, based on the issues to be raised during the CAB event.

WP5-2 The Contractor shall be ready to support the re-run of all, or of a selected set of IV&V tests, or the execution of new tests, in support of the CAB.

[80] The Purchaser has a right to repeat the IV&V Assessment process until complete RFC package is ready and mature to start Change Advisory Board (CAB) process or additional tests if requested by CAB.

WP5-3 The Contractor shall support Purchaser's IV&V installation, assesment and Test Activities, including Purchaser performed security testing.

WP5-4 Before the IV&V Assessment, the Contractor shall perform a demonstration to verify system installation, configuration, performance and functionality. After successful demonstration, the system will be handed-over to the Purchaser's IV&V team for further evaluation.

WP5-5 The Contractor shall provide all the necessary System Specifications, Hardware i.e. Virtual and Storage capacity and Licenses, for the Purchaser to conduct the required IV&V Assessment in the Testing Environment.

WP5-6 The Contractor shall install, set up and configure the system in the Customer Environment, in preparation for the Independent Verification and Validation Assessment to be conducted under WP5.

WP5-7 The Contractor shall submit a complete build including source and object code, version description document (including issues and workarounds), including deployment and installation instructions prior to the start of the IV&V Assessment.

WP5-8 The Contractor shall provide a Batch 1 Certificate Of Conformity (CoC) for all Node Types and Trailers that shall be utilised during IV&V Assesment.

[81] The Purchaser will execute their own set of IV&V test cases and has the right to use the Contractor developed test cases during the pre-IV&V Evaluation.

WP5-9 The Contractor shall perform all or selected Factory Acceptance Tests as agreed by the Purchaser in the Customer Environment to demonstrate that the system works with its affiliate system (interoperability) and functions successfully in an Operationally Representative environment.

WP5-10 The Contractor shall perform the Performance Assessment Test in the Customer Environment as part of the IV&V Assessment.

WP5-11 The Contractor shall fix incidents found during demonstration and then handover the system to IV&V Team for further test activities.

WP5-12 After achieving Deployment Authorization of the system, the Contractor shall install and configure the system in the Customer Environment and execute further tests.

WP5-13 The Contractor shall support an IV&V Assessment and Security Testing by the Purchaser, prior to UAT(E) to ensure the system is fit-for-use for UAT(E).

WP5-14 The Contractor shall provide the technical experts on the Customer's Environment site to assist all IV&V Assessment activities.

WP5-15 The Purchaser shall provide a test environment for the Independent Verification and Validation (IV&V) Assessment, including Security Testing, that environment shall be in Portugal at a Customer location.

WP5-16 The Contractor shall be ready to support the re-run of all, or of a selected set of IV&V tests, or the execution of new tests.

2.5.1 CONDUCT USER TESTING SITE SURVEY

WP5-17 The Contractor shall carry out Site Surveys to collect information on the training, Acceptance Testing and OpTEVal Sites, then populate a Site Survey Report (SSR), covering at least the following data:

a. All the information relevant to the physical installation of the new equipment at the site;

b. Any CIS security implications (in terms of Security Accreditation) at each site, including integration and interaction with already existing cybersecurity components;

c. Points of contact, including the local SAA of the site;

d. All aspects required for:

   i. Training;

   ii. UAT(E);

   iii. OpTEVal.

e. Floor plan layouts of installation spaces (equipment rooms, corridors, offices);

f. Temporary equipment storage spaces;

g. Cabling (routing, configuration and wiring assignment);

h. Availability of electrical power and electrical power conditioning;

i. Environmental conditioning.

2.5.2 PROVIDE RELEASE PACKAGES

[82] A Release Package is a planned release of a product or product edition. The content of a Release Package is defined by the features and associated Requests for Change (RFC) that it implements.

WP5-18 The Contractor shall supply the documents and media in final form listed in Table 1-1Table 2-4 below, for inclusion in the Purchaser Release Package for the RFC. These shall be provided 3 weeks before planned tests.

WP5-19 Architecture documents will be provided by the Purchaser as a part of the Release Package.

WP5-20 The Contractor shall submit a complete build including source and object code, version description document (including issues and workarounds), including deployment and installation instructions prior to the start of the IV&V Assessment.

[83] Once all the final documents required for the Release Package have been submitted and the production baseline has successfully completed the IV&V Assessment, the CAB may grant the Deployment Authorisation for the Release's distribution, i.e. the approval to deploy the TDCIS on NATO Operational targeted networks.

Table 2-4 Release Package Items

Serial	Item	Source
1	System Media (system installation executables)	Contractor
2	System Installation Instructions	Contractor
3	System User Manual (or equivalent User Documentation)	Contractor
4	Version Release Description/System Release Notes	Contractor
5	System Implementation Plan	Contractor
6	End User Licence Agreement (EULA) for embedded Open Source Software (OSS)	Contractor
7	Architecture Document - System Interface Description (NSV 1)	Purchaser
8	Unit/Component Test Report(s)	Contractor
9	First Articles Test Report	Contractor
10	Requirements Traceability Matrix	Contractor

2.5.3 INSTALL FIRST ARTICLES

WP5-21 The Contractor shall install and verify the First Articles systems in the Customer's Environment (PFE), in preparation for the IV&V Assessment.

WP5-22 The installation shall be temporary, only for the purpose of supporting these tests.

WP5-23 Installation activities shall be followed by the configuration of the systems and provisioning of services in accordance with the LLD, which shall in turn be based upon the configuration captured in WP1.

2.5.4 CONDUCT SYSTEM INTEGRATION TESTING (SIT)

WP5-24 System Integration Testing shall verify the following at the Customer's test environment:

1) Inter-nodal connectivity between PRT TDCIS nodes of the same DPOP, using different WAN bearers (SATCOM, terrestrial etc).
2) Installation, integration and operation of the related CoI onto subsystem delivered under this contract (CoI installation is under Purchaser's Responsibility), to ensure that the CoI Services can be hosted and run on the relevant module;

2.5.5 CONDUCT SECURITY TESTING

[84] Security testing is to confirm that all CIS security requirements and associated security mechanisms identified for the TDCIS have been properly implemented.

[85] Security testing will be conducted on the First Article nodes, configured to be representative of the target network/security domain, including security settings, patches, network configurations and interfacing systems and services, as

necessary to represent the live environment as viewed from the perspective of the product, system or service being tested.

[86] Security testing conducted during the IV&V Assessment is to verify implementation of identified CIS security requirements and associated security mechanism and check the readiness (from the security accreditation point of view) to SAT and enable deployment authority.

WP5-25 The Security testing shall comply with Section 2.3, specifically the STVP and STVR.

WP5-26 The STV tests shall be cross-referenced to the security specific requirements, and corresponding security design functions. This cross-referencing shall be via the Reference Traceability Matrix (RTM).

[87] For any Software, Operating Systems, Middleware, and Firmware that is submitted by the Contractor for inclusion in the AFPL, as well as for any other security-related aspect of the solution, the Change Management process requires security testing, including penetration testing and vulnerability assessment.

WP5-27 The Contractor shall ensure that all the security countermeasures detailed in SSRS and SISRs have been installed and configured for all delivered DCIS equipment.

WP5-28 The Contractor shall address and fix any issues resulting from the Penetration Testing and Vulnerability Assessment before System Acceptance Test (SAT).

WP5-29 The Purchaser shall have the right to repeat this process until all identified issues are confirmed fixed.

WP5-30 As a part of the AFPL process the Contractor shall provide personnel at the Purchasers facility in support of Purchaser Security testing, including and Penetration testing of Software, Operating Systems, Middleware, and Firmware AFPL.

WP5-31 For any hardware component or subsystem involving Software, Operating Systems, Middleware, and Firmware, penetration testing may be requested to be performed.

WP5-32 The Contractor's CIS Security Manager shall participate in the Vulnerability Assessment tests under the direction of the Purchaser.

WP5-33 Contractor's support to Vulnerability Assessment tests shall be available during the test at the Customer’s premises.

2.5.6 USER ACCEPTANCE TESTING (EQUIPMENT) ON BATCH 1 EQUIPMENT

WP5-34 The Contractor shall carry out formal training prior to the User Acceptance Testing of Equipment (UAT(E)). And that the Contractor shall document in their Training Plans and Test Plans, a pragmatic solution for a natural progression from one to the other; with that natural progression considering the most effective use of training media and actual Batch 1 Assets.

WP5-35 The Contractor shall assemble, configure and confirm that all Batch 1 Nodes, Trailers and Ancillaries are fit for purpose and ready for UAT(E).

WP5-36 The Contractor is to facilitate all the UAT(E) Enablers, ensuring as a minimum:

1) All Purchaser SME’s and necessary Customer personnel involved in the UAT(E) have been suitably trained to a commensurate standard to facilitate the testing;

2) All Test Scripts have been pre-approved by the Purchasers SME's.

WP5-37 During the UAT(E) the Contractor shall undertake a Commissioning and Acceptance (C&A) Trial within a Customer's establishment. The C&A shall be scheduled for a date convenient to all parties but not later than 1 month after delivery of the equipment and documentation to the Customer's establishment;

1) The Purchaser shall participate on a consultative nature at the C&A, with the Customer attending to observe, becoming acquainted with and receive training in TDCIS management;

2) The contractor shall provide and make available all specialist tooling with relevant documentation in support of the UAT(E).

WP5-38 The Contractor shall provide full technical assistance, equipment and materials necessary to perform the C&A Tests in accordance with the approved test plant.

WP5-39 The Contractor shall ensure that the following has been made available to the Purchaser prior to the UAT(E) and labelled with the appropriate protective marking:

a. All 'As-built' System Design Documentation;

b. All 'As-built' User & Maintainer Documentation;

c. All 'As-built' Reference Information.

WP5-40 The Contractor shall install, set up and configure the system for UAT(E).

WP5-41 Prior to the UAT(E), the Contractor shall present to the Purchaser, the set of test scripts to be followed.

WP5-42 Prior to the start of UAT(E) event, the Contractor shall achieve NATO Security Authority for Testing.

WP5-43 The Contractor, with the assistance of the Purchaser, shall utilise, as and when required, the Combined Federated Battle Laboratory Network (CFBLNet) NATO Unclassified Enclave (NUE) and PRT services.

WP5-44 The Contractor is to prepare systems for functioning within the UAT(E) for Interoperability with:

a. NATO FMN;

b. Customer National Network.

WP5-45 On conclusion of the C&A and upon acknowledgement, that material is "fit for purpose", the Contractor shall draw-up a final acceptance report; assisted by the Purchaser. If required, the report shall have an attached deficiency list indicating outstanding items that require follow up, as per the Deficiency Reporting of Section 6.3.3.

WP5-46 The Contractor shall ensure that the C&A Site and Equipment used shall be restored to its initial state at the end of the C&A at no cost to Purchaser and, or the Customer.

WP5-47 The scope of the UAT for the Admin Users shall be determined from the user functions as identified from the TNA.

WP5-48 The Contractor shall conduct and facilitate a full UAT(E) that consists of Scenario based testing, focused on validating the system as per user needs.

WP5-49 The Contractor shall develop test scenarios based on the operational phase and the type of user. The Contractor shall use Table 2-5 below as a framework to develop the testing.

Table 2-5 Framework for User Testing

No.	Operational Scenario Phase & required CIS	Admin Users	End Users	Comment
1	Deployment Preparation and Planning			
2	Initial Deployment			
3	Mission Execution			
4	NRF Mission Handover			
5	Redeployment			

WP5-50 On successful completion of UAT(E), the system will be ready for PSA, which will be reliant on successful completion of the verification testing carried out by the Contractor's Verification & Validation team and observed by the Purchaser:

WP5-51 The Contractor shall issue a notice of successful UAT(E) completion and recommendations for entry into Provisional Systems Acceptance.

WP5-52 The Contractor shall issue a notice of readiness for the Provisional System Acceptance.

2.5.7 MATERIAL HANDLING

[88] The DCIS systems may be deployed at locations where there are no roads or other areas which are not easily accessible. Therefore there will be no forklift trucks or other lifting equipment to handle the transit cases.

[89] In such circumstances material handling equipment is needed to dismount the equipment from the vans and to take them to the end locations where they will be set up.

WP5-53 The Contractor shall provide material handling equipment that shall allow the transport of the DCIS systems over unpaved terrain. This is especially important for the heavy transit cases.

WP5-54 There shall be 1 set of material handling per TDCIS Deployed Point Of Presence (DPOP) used for User Acceptance Testing.

2.5.8 SYSTEM ACCEPTANCE TESTING

WP5-55 System Acceptance Test shall assess the requirements for all quality characteristics, beyond security, interoperability and functionality. This will encompass requirements (e.g. Performance, Reliability, etc.) as described in Section 8.

[90] In particular, performance assessment during System Acceptance Testing is

required to measure responsiveness, effectiveness and stability under a particular workload, as well as to ensure that the TDCIS systems are behaving and generating results within specified performance criteria. Performance Testing can also serve to investigate, measure, validate or verify other quality attributes of the capability, such as scalability, reliability and resource usage. Specific forms of performance testing are throughput and speed testing, load testing and stress testing.

WP5-56 The Contractor shall run tests in order to find out the actual capacity of the different services implemented, based on the individual performance benchmark of the components specified in the SRS (as technical constraints, e.g. routers, firewalls, number of CPUs and storage, etc.).

WP5-57 The Contractor shall plan the performance test also for the purpose of reliability testing and consider the related reliability metrics in the planning of the test.

[91] Note that the System Acceptance Test during the IV&V Assessment does not imply PSA or FSA.

2.5.9 PROVISIONAL SYSTEMS ACCEPTANCE

WP5-58 Before PSA, the Contractor shall provide a Pre-PSA Report with the failures and corrective actions applied during the site activation and operation period including any baseline changes.

WP5-59 Before PSA, the Contractor shall update any system configuration baseline and documentation resulted from the changes during the operation of these systems. The Contractor shall deliver the updated baseline with the rest of the PSA deliverables.

WP5-60 The Contractor shall issue a notice of successful PSA completion and recommendations for entry into an Operational Technical Evaluation.

WP5-61 The Contractor shall provide a Batch 1 Certificate Of Conformity (CoC) for all Node types; i.e. OpTEVal Ready.

[92] The Provisional Systems Acceptance (PSA) will form the Product Baseline for Batch 1 TDCIS and the following Batches 2 and 3.

2.6 PROVIDE PRODUCTION UNITS (WP6)

2.6.1 PROVIDE LICENSES

WP6-1 The Contractor shall provide all software licenses necessary for Batch 1, 2 and 3 equipment, and these can be provided on a batch by batch basis.

WP6-2 The Contractor shall ensure that any Hardware or Software Licensing procured for TDCIS are procured for the Customer’s consumption, noting that when the TDCIS Batch 1, 2 and 3 reaches a handover status, no additional licensing or unplanned permission sets shall be attributed.

WP6-3 Where commercially available, perpetual licenses shall be procured and delivered under this Contract.

[93] Any software listed as PRT National Software will be provided as PFE for the Contractor to implement and integrate.

WP6-4 Licenses shall encompass but shall not be limited to:

a. Any software images running on active network components, i.e routing, switching, bridging and data diode components;

b. Any software images (e.g. hypervisors, operating systems) and applications running on compute and storage components;

c. Any software images and applications, including the static and deployable staging systems;

d. The Operating System (OS) of any workstations delivered with the First Articles;

e. The OS of the system administer workstations delivered with the First Articles;

f. Voice over Internet Protocol (VoIP) licenses for phone appliances delivered with the First Articles Small Team Nodes.

2.6.2 CONDUCT BATCH 2 AND 3 FACTORY ACCEPTANCE TESTING

[94] Factory Testing encompasses the tests to verify that all production units comply with the specifications. The FAT will be the factory acceptance of all TDCIS Batch 2 & Batch 3 Assets prior to being shipped to the Customer. The Customer should receive fully configured assets.

[95] Any software listed as Customer National Software will be provided as PFE for the Contractor to implement and integrate.

WP6-5 Factory Testing is applicable for each production unit and shall consist an agreed subset of the Factory Acceptance Testing test cases.

WP6-6 The Batch 2 and 3 FAT Reports shall be issued to the Purchaser within 1 week of FAT completion. A successful FAT will be a pre-condition to approve the shipment of equipment to the PRT Customer.

2.6.3 PROVIDE SYSTEM DOCUMENTATION

WP6-7 As part of the Batch 1, 2 and 3 deliverables, the Contractor shall provide the System Documentation, in keeping with the processes at Section 5. These documents are to include:

g. As-built (including 3D digital models);

h. Operations Manuals;

i. Maintenance Manuals;

j. Technical Documentation;

k. COTS documentation;

l. ESECS.

2.6.4 PROVIDE BATCH 2 PRODUCTION UNITS

[96] The Factory Acceptance Test (FAT) will be for the factory acceptance of all TDCIS Batch 2 Assets prior to being shipped to the PRT Customer.

WP6-8 The Contractor shall ensure that Batch 2 Nodes, as given at Table 1-2, are manufactured, built, assembled and made ready for Factory Acceptance Test (FAT).

WP6-9 The Contractor shall Supply all Batch 2 Equipment.

WP6-10 The Contractor shall assemble all Batch 2 Equipment.

WP6-11 The Contractor shall conduct a Phased Batch 2 Factory Acceptance Testing (FAT), to the Purchaser's acceptance.

WP6-12 The Contractor shall provide all 'as-built' documentation.

WP6-13 The Contractor shall provide and apply Batch 2 NATO Codification and a CoC.

WP6-14 The Contractor shall Deliver all Batch 2 Equipment to the Customer's site.

WP6-15 The Contractor shall ensure that the Customer receives fully configured Systems at node state.

WP6-16 The Contractor shall support the Service Transition of all Batch 2 Systems.

2.6.5 PROVIDE BATCH 3 PRODUCTION UNITS

[97] The Factory Acceptance Test (FAT) will be the factory acceptance of all TDCIS Batch 3 Assets prior to being shipped to the PRT Customer.

WP6-17 The Contractor shall ensure that Batch 3 Nodes are manufactured, built, assemble and made ready for FAT. The Contractor shall ensure that the Customer receives fully configured Systems.

WP6-18 The Contractor shall Supply all Batch 3 Equipment.

WP6-19 The Contractor shall assemble all Batch 3 Equipment.

WP6-20 The Contractor shall conduct a Phased Batch 3 FAT, to the Purchaser's acceptance;

WP6-21 The Contractor shall provide all 'as-built' documentation.

WP6-22 The Contractor shall provide Batch 3 NATO Codification and CoC.

WP6-23 The Contractor shall Deliver all Batch 3 Equipment to the Customer's site;

WP6-24 The Contractor shall ensure that the Customer receives fully configured 3 Systems.

WP6-25 The Contractor shall support the Service Transition of all Batch 3 Systems.

2.6.6 SHIPMENT OF PRODUCTION UNITS

WP6-26 The Contractor shall ship the Batch 2 and 3 production units as per the SSS.

WP6-27 The Contractor shall be responsible for shipping any elements affected by deficiencies back to factory, following SAT and before PSA can be declared and OpTEval can commence.

WP6-28 The Contractor shall be responsible for shipping any elements affected by deficiencies back to factory, following OpTEval and before FSA can be declared and the systems can be handed over to the end-users.

WP6-29 Shipping of rectified production units shall adhere to the requirements in IPS Section 4.8 and at no expense to the Customer and, or the Purchaser.

2.6.7 FINAL SYSTEMS ACCEPTANCE

WP6-30 Before Final Systems Acceptance (FSA), in parallel with the Batch 2 and 3 deliveries, the Contractor shall update the user documentation (deployment, system, operation, maintenance and reference manuals), if there are any missing and incorrect information spotted during OpTEVal.

WP6-31 After all Batch 1, 2 and 3 Equipment's are accepted by the Purchaser, and after the Service Transition is complete, an FSA may be carried out.

2.7 SUPPORT OPERATIONAL TEST & EVALUATION (WP7)

2.7.1 SHIPMENT OF BATCH 1 FIRST ARTICLES TO OPTEVAL LOCATION

[98] Upon Purchaser's approval of the PSA Report and notice of readiness, the Customer's Staff will relocate all Batch 1 Assets to the OpTEVal location.

[99] A pre-requisite for System Integration is to have received the Deployment Authority which entails obtaining an (Interim) Security Accreditation (I(SA)) from the Customer Nation's SAA. I(SA) is also a condition for service provisioning to occur.

WP7-1 The Contractor shall be responsible for the provision of consultative support[9] for the Batch 1 Assets transitional relocation to the OpTEVal location, which is detailed within the SSS.

2.7.2 CONDUCT OPTEVAL SITE SURVEY

WP7-2 The Contractor shall conduct a Site Survey at the OpTEVal location, the Site Survey shall adhere to the site survey requirements in Section 2.5.1.

WP7-3 The Site Survey Report (SSR) shall be delivered to the Purchaser for review and acceptance following the document requirements at Section 5, not later than 2 weeks following the Site Survey.

2.7.3 SUPPORT TO THE OPTEVAL

[100] The OpTEval will be conducted by the Purchaser with preparation of equipment in a Customer location; with preparation of equipment in a garrison location, deployment to outdoor environment, installation of the PRT TDCIS systems and continuous operation of these assets, introduction of fault scenarios, finishing with the redeployment of the system back to the garrison location and its reconfiguration back to Node state.

[101] OpTEval occurs after the system has been granted PSA and Interim Security Accreditation (I(SA)).

[102] Successful completion of OpTEval is a condition to achieve Final System Acceptance.

[103] The OpTEVal is to be carried out using Batch 1 Equipment, when the TDCIS is expected to:

a. Demonstrate that the TDCIS is Fit for Purpose, by placing it in the hands of the Operational Users to verify that the Operational Acceptance Criteria (OAC) are fulfilled through scenario-based testing;

b. Verify that the training delivered under WP4 is fit for purpose;

c. Verify that documentation has been delivered and can be effectively used to operate and support the system in the field;

d. Verify integration with additional PFE not involved in previous test instances,

[9] Providing informal assistance and information to Customer staff during execution of OpTEval

including interaction with the Operational Users;

e. Verify that the system interoperates with other PRT and NATO assets.

[104] The OpTEval will consist of following steps:

a. Planning;

b. Preparation;

c. Deployment;

d. OpTEval Execution;

e. Redeployment;

f. Finalisation.

WP7-4 The Contractor shall provide a Batch 1 Certificate Of Conformity (CoC) for all Node Types and Trailers that shall be utilised during OpTEVal.

WP7-5 OpTEVal shall be interoperable with the already selected Customer National and NATO FMN systems.

WP7-6 The Contractor shall provide on-site SME support during OpTEVal.

WP7-7 In case of a critical failure during OpTEval, the Contractor shall fix the failure and restore the system within a maximum of 4 hours.

WP7-8 To minimise the down-time effecting TDCIS operational availability, the Contractor shall keep all critical spare parts on-site during throughout the OpTEval period.

WP7-9 The Contractor shall apply the formal Change Management process for the fixes requiring the change of the approved baseline. The Contractor shall update the system configuration baseline and documentation resulted from the changes during or resulted from OpTEval. The Contractor shall deliver the updated baseline before FSA

WP7-10 The Contractor shall support, through a consultative regime an Operational Technical Evaluation (OpTEVal) in consideration of the following:

1) Whilst a Customer responsibility, the OpTEVal is a part of the overall Validation process;

2) OpTEVal shall validate the TDCIS Capability, illustrating that it is fit for purpose, meeting all business and operational requirements;

3) The Purchaser will provide the Customer Field Exercise Plan (FEP), detailing what is to be performed on OPTEVAL by trained PNA personnel;

4) With consultative support from the Purchaser and Contractor, the Customer will conduct the OPTEVAL at Sta Margarida Army Compound, inside a Tactical environment suitably replicating the conditions of a NATO Deployed operation;

[105] The Purchaser will witness the OpTEVal evolution in close proximity.

WP7-11 The Contractor shall ensure during OpTEVAL that the following is carried out:

a. Correcting faults discovered during the exercise;

b. Amending all documentation impacted by corrective work;

c. Updating all training and associated documentation, impacted by corrective work.

WP7-12 The Contractor shall ensure that during the OpTEVal the system's stability remains operational with no service outages. (This excludes outages caused by Purchaser Furnished Services)

WP7-13 During the above mentioned steps the Contractor shall:

a. Provide advice to the Purchaser on the functionality and capability of the TDCIS Nodes;

b. Provide expertise on any different sites of the whole OpTEval (in garrison, in the field) and witness the whole process;

c. The Purchaser has the right to conduct User Test as part of OpTEval. Prior to the OpTEval, the Users will provide scenarios to be tested, and the Purchaser will create test plans that will be shared with the Contractor.

[106] The Purchaser has the right to conduct User Test as part of OpTEval. Prior to the OpTEval, the Users will provide scenarios to be tested, and the Purchaser will create test plans that will be shared with the Contractor.

WP7-14 The Contractor shall support Purchaser-conducted series of User tests at CIS and Network level, which will be minimum of one week long.

[107] The OpTEval will include testing interfaces to other Customer assets, which will be configured and operated by the Purchaser in support to the tests.

[108] During the OpTEval, the equipment will be operated by trained Customer personnel.

[109] As part of OpTEval, all equipment will be delivered in mission-specific state.

[110] The OpTEval will be performed in a tactical training environment suitably replicating the operational conditions of a NATO deployed operation to the greatest extent possible.

WP7-15 Either just before or as the part of the OpTEval, the Contractor shall conduct Additional Security Testing in accordance with the SAA-approved STVP. This is to verify the successful implementation of all those CIS security requirements and associated security mechanisms that were not successfully completed during previously conducted security testing instances.

[111] Depending on the results for the previous security testing instance(s), none or only very limited amount of security tests should be tested during additional security testing.

WP7-16 Security Test and Verification Reports (STVR) shall be developed and released by the Contractor one week after completion the Additional Security Testing but not later than 4 weeks prior FSA. This is to enable issuance of (I)SA for the TDCIS.

WP7-17 The Contractor shall be responsible for the Operational and Maintenance (O&M) support of the system throughout the OpTEval's full duration, as follows:

a. 2 weeks of hands-on training to prepare the users who will conduct the OpTEval;

b. 2 weeks for setting up the system at the OpTEval locations. This duration could change subject to the amount of effort estimated by the Contractor;

c. 3 weeks of OpTEval, including User Tests;

d. 1 week (back-up).

WP7-18 The Contractor shall be responsible for correcting the faults founds during the test and amending, if necessary, the corresponding documentation and any other documentation (including training) affected by those changes.

WP7-19 The Contractor shall ensure the system remains fully operational with no service outages greater than 60 minutes occurring during each working day.

WP7-20 The Contractor shall plan the support concept for OpTEval accordingly with the Support Requirements provided in Section 4.12. The Contractor shall provide Subject Matter Experts (SME) onsite over the OpTEval period and resolve major issues outside of normal working hours, working overnight if required.

WP7-21 The Contractor shall maintain a logbook recording any significant event for the acceptance and final testing. The logbook shall contain, as a minimum, the details of the test executed, their ratings, deficiencies noted, test duration, and important remarks.

WP7-22 The Contractor shall provide technical support to the Purchaser for configuring and readying the TDCIS system for testing. Contractor support will be sought for the following:

1) Verifying that the TDCIS system (preconfigured in its mission-specific state) is able to meet the notice to move of 5 days, i.e. patching and initial functional testing activities shall not require more than 5 days;

2) Testing services following FMN design and principles where applicable, based on the service requirements as defined for the corresponding NRF during the corresponding exercise planning cycle. The Purchaser will provide the service requirements to the Contractor whenever available;

3) Testing of Customer of Interest (CoI) services shall be in accordance to the exercise Steadfast Cobalt verification and validation (V&V) approach. The focus of the CoI V&V will be testing the ability of the TDCIS to support the end-to-end provision of the service (e.g. including all the underlying communication services, firewalls, etc.) between the nodes and external services (i.e. nations). The Purchaser will share the applicable Steadfast Cobalt V&V approach when available, after Contract Award.

[112] Successful completion of the OpTEval will be a contribution to the Final System Acceptance (FSA)

WP7-23 The Contractor shall issue a notice of readiness for the Final System Acceptance.

WP7-24 The Contractor shall support the Service Transition of all Batch 1 Systems.

3 PROJECT MANAGEMENT

[113] The goal of the Contractor's project management is to guide the project through a controlled, well-managed, visible set of activities to achieve the desired results.

[114] The Project will be managed and be subject to review by the Purchaser, who will be represented by the NCI Agency Project Management Team (PMT). This team will include relevant NCI Agency personnel (Contracting Officer, Project Manager, Project Engineers, Subject Matter Experts, Independent Verification and Validation engineers).

MNG-1 In advance of their occurrence, the Contractor shall identify potential problems and associated risks, with mitigating actions to be presented to and agreed by the Purchaser.

MNG-2 In the event problems identified to the Purchaser do occur, the Contractor shall propose to the Purchaser for consideration and acceptance, contingency measures for resolution of the incidents. Contingency measures are to minimise impact on the project's critical path of implementation.

3.1 CONTRACTORS PROJECT MANAGEMENT ORGANISATION

MNG-3 The Contractor shall establish a project management organisation and maintain a Project Management Office (PMO) to perform and manage all efforts necessary to meet all thier responsibilities under this Contract.

MNG-4 The Contractor shall provide all necessary manpower and resources to conduct and support the management and administration of operations in order to meet the objectives of the project, including taking all reasonable steps to ensure continuity of personnel assigned to work on this project.

MNG-5 The Contractor shall use PRINCE2 or a similar and internationally recognised Project Management methodology for the direction, governance and management activities for the entire project.

MNG-6 The Contractor shall ensure that the personnel identified below are considered as Key Personnel:

1) Project Manager;
2) Technical Lead;
3) Test Director;
4) IPS Manager;
5) Training Manager;
6) Configuration Manager
7) Quality Manager;
8) CIS Security Manager.

MNG-7 The Contractor shall ensure that Suitably Qualified and Experienced Personnel (SQEP) fill the Key Personal roles above, throughout the whole life of the project, and in accordance with, as a minimum, the Appendix Table 3 seen in Appendix D.

MNG-8 The Contractor shall provide the Purchaser with Curriculum Vitae (CV) for each member of their staff assigned to this contract for review.

MNG-9 The Contractor shall ensure staff reviewed and selected for this project are in place and available on Contract Award.

MNG-10 The Contractor shall ensure all their staff assigned to this project has suitable security clearance for working within Customer and Purchaser establishments, before they start work on the project.

[115] The Purchaser's Project Manager (PM) will act as the Purchaser's representative and will be the primary interface between the Contractor and Purchaser after the EDC.

MNG-11 The Contractor`s Project Manager shall be prepared at all times to present and discuss the status of Contract activities with the Purchaser's Project Manager, Contracting Officer, and/or Technical Lead.

MNG-12 The Contractor`s Project Manager shall have experience managing projects similar to this project in technical and financial scope.

MNG-13 Key personnel on the Contractor side shall actively liaise with Purchaser's personnel with equivalent roles, as required.

MNG-14 The Purchaser's Quality Manager shall report to a separate manager within the Contractor's organisation at a level equivalent to, or higher than the Project Manager.

MNG-15 The Contractor shall consult regularly with the Purchaser to ensure that project management practices are compatible, meet their joint requirements and are tailored to meet the requirements of the project.

MNG-16 All documentation produced under this Contract shall follow the document convention and format as detailed in Section 5.

MNG-17 Unless otherwise stated documentation shall follow the review process under Section 5.

3.2 PROJECT MANAGEMENT DOCUMENTATION

3.2.1 PROJECT MANAGEMENT PLAN

MNG-18 The Project Management Plan (PMP) shall describe how the Contractor will implement the totality of the project, including details of the project control that will be applied.

MNG-19 The PMP shall describe how the Contractor shall implement project/contract administration, including details of the controls that shall be applied to supervise Sub-Contractor performance.

MNG-20 The PMP shall provide sufficient detail to allow the Purchaser to assess the Contractor's plans and capabilities in implementing the entire project in conformance with the requirements specified.

MNG-21 After approval by the Purchaser, the final version of the PMP shall be the official document against which the Contractor is expected to conduct the performance of the Contract. The approved PMP shall however not supersede the Contract, and the Schedule of Supplies and Services (SSS) in particular.

MNG-22 The PMP shall describe the Contractor's organisation, assignment of functions, duties, and responsibilities, management procedures and policies, and reporting requirements for the conduct of contractually-imposed tasks, projects, or programmes.

MNG-23 The PMP shall identify all major Contractor operating units and any SubContractors involved in the development of System and a description of the portion of the overall effort or deliverable item for which they are responsible.

MNG-24 The PMP shall cover all aspects of the project implementation, including the Contractor's project management structure and project control processes, personnel assignments, and external relationships necessary to provide the System as required by this Contract.

MNG-25 The Contractor shall ensure that the PMP remains current throughout the duration of the Project to reflect the actual state of the Contractor's organisation and efforts, and maintain a current copy on the Collaborative Environment.

MNG-26 The Contractor shall maintain the baseline version of the PMP on the Collaborative Environment.

MNG-27 The Contractor shall brief any changes to the PMP at all Project Review Meetings.

MNG-28 The PMP shall cover at least the following areas:

1) Project organisation:
   a. Internal structure, including a project organisational diagram;
   b. Roles and responsibilities of each organisational unit;
   c. Key personnel, their qualifications, and their responsibilities;
   d. Organisational boundaries between the project organisation and the parent and subcontracted organisations.
2) Project management processes:
   a. A description of the Contractor's project management methodology and approach to be used for this project;
   b. Project start-up, including staffing, basis of cost and schedule estimates, and project infrastructure;
   c. Project control, including monitoring, reporting of work packages.
3) Communications management, including the Collaborative Working Environment and its establishment, maintenance and use; Project Progress Reports; Project Checkpoint Reviews; and all other communications with the Purchaser and Sub-Contractors;
4) Lessons Learned management, including the identification, reporting, and logging of lessons learned in a Lessons Learned Log;
5) Security management:
   a. Security management, including personnel and facility security;
6) Purchaser involvement:
   a. Purchaser involvement via Joint Reviews, informal meetings, reporting, modification and change, implementation, verification, approval, acceptance and access to facilities;
   b. Expected Purchaser Furnished Equipment and associated timelines;
   c. Delivery procedures for the documentation and the products. This includes control of Purchaser Property, export control process.

7) Subcontracting plan demonstrating that the Contractor can effectively manage, monitor and control the sub-Contractors and that the sub-Contractors will agree to abide by the requirements of the prime Contract as pertains to flow-down provisions.

3.2.2 PROJECT IMPLEMENTATION PLAN

MNG-29 The Project Implementation Plan (PIP) shall describe how the Contractor shall implement project/contract administration.

MNG-30 The PIP shall consider all project implementation aspects, which include management provisions, facilities, schedules, personnel assignments, external relationships and project control.

MNG-31 The PIP shall provide sufficient detail to allow the Purchaser to assess the Contractor's plans and capabilities in implementing the entire project in conformance with the requirements specified.

MNG-32 The Contractor shall ensure that the PIP accurately reflects Contractor’s plans for the full duration of the period of performance of the Contract.

MNG-33 After approval by the Purchaser, the final version of the PIP shall be the official document against which the Contractor is expected to conduct the performance of the Contract. The approved PIP shall however not supersede the Contract, and the Schedule of Supplies and Services (SSS) in particular.

MNG-34 The content of the plans in PIP is described in detail in the related sections of this SOW.

MNG-35 All plans in the PIP above involve a sequence of activities. For each major activity, the plan shall at least provide the following information:

1) Timeline of the activity
2) Locations where the activity will take place;
3) Methodology and processes followed to implement the activity;
4) Actors involved in the activity, covering:
    a. On the Contractor's side, both prime and Sub-Contractors, with detailed information on the roles and responsibilities of each;
    b. On the Purchaser's side, required players and description of how they will engage in the activities and with the actors on the Contractor's side.
5) Information required from the Purchaser for the activity to take place;
6) Documentation tree and deliverables for the activity, where applicable;
7) Review and acceptance process of the documentation above, where applicable.

MNG-36 In all plans of the PIP, the Contractor’s proposed timelines shall be commensurate and contingent upon the nature of the risks relevant to the efforts concerned, as identified in the Risk Management Plan.

MNG-37 All plans in the PIP shall provide:

1) Tables listing activities and dates, as tabular version of the Gantt charts;
2) Lists of deliverables under each plan (in turn mapped to CLIN numbers).

MNG-38 All plans in the PIP shall contain a mechanism to visually track the changes in any of the artefacts above, throughout the various revisions of the PIP. Alternatively, the changes can be item ised in Release Notes or similar (in tabular form).

MNG-39 The PIP shall cover all aspects of project implementation including management, schedules, personnel assignments and Project Controls, necessary to provide the TDCIS capabilities, as required by this SOW.

MNG-40 The PIP shall be sufficiently detailed to ensure that the Purchaser is able to assess the Contractor's plans, capabilities, and ability to satisfactorily implement the entire Project in conformance with the requirements as specified in this SOW.

MNG-41 The Contractor shall produce Draft PIP. The Draft PIP shall address all comments received at Contract Award.

MNG-42 The Draft PIP shall be reviewed during SRR.

MNG-43 The Contractor shall continue to update the Project Implementation Plan (PIP) produced and delivered at the time of the Bid, until FSA.

MNG-44 The Contractor shall ensure that the PIP accurately reflects Contractor's plans for the full duration of the period of performance of the Contract.

MNG-45 The PIP shall bundle the following products:

1) Product Breakdown Structure (PBS);
2) Project Work Breakdown Structure (PWBS);
3) Project Master Schedule (PMS);
4) Risk Management Plan, including Risk Log;
5) Issue Management Plan, including Issue Log.

MNG-46 The Contractor shall provide the following Plans specific to specialist areas. The Contractor may want to include these in the PIP, but as a separate section:

1) System Design Plan (SDP);
2) Security Accreditation Plan (SAP);
3) System Installation Plan (SIP);
4) Project Master Test Plan (MTP);
5) Documentation Plan (DP);
6) Integrated Product Support Plan (IPSP);
7) In Service Support Plan (ISSP);
8) System Safety Program Plan (SSPP);
9) Configuration Management Plan (CMP);
10) Quality Assurance Plan (QAP).

MNG-47 The draft PIP version shall be provided to the Purchaser for review and acceptance within four (4) weeks after Effective Date of Contract (EDC). The PIP will be reviewed by the Purchaser and comments submitted to the Contractor no later than five (5) working days after receipt.

MNG-48 PIP final version shall be provided to the Purchaser six (6) weeks after Effective Date of Contract (EDC). The approval of the PIP and of any updated plan of the PIP by the Purchaser signifies that the Purchaser considers the plan to be a logical

and satisfactory approach to the management of the required activities, based upon the information provided by the Contractor.

MNG-49 The approval of the PIP shall in no way relieve the Contractor from their responsibilities to satisfy the contractual and technical requirements of this Contract. The requirements of the Contract supersede the statements of the PIP in the case of any conflict, ambiguity or omission.

MNG-50 The PIP shall be updated 2 weeks prior to every Project Review Meeting, up to CDR, at which time the PIP shall become final.

MNG-51 From CDR onwards, the following plans shall be updated by the Contractor as appropriate throughout the duration of the contract, beyond the time of release of the Final PIP:

1) Project Master Test Plan;
2) Documentation Plan;
3) Integrated Product Support Plan;
4) Training Plan (TRNP);
5) In Service Support Plan (ISSP);
6) System Safety Program Plan (SSPP); and
7) Configuration Management Plan (CMP).

MNG-52 Each revision of the PIP shall entail a revision of each of the plans.

MNG-53 Any revisions of the PIP shall be subject to Purchaser approval.

3.2.2.1 PRODUCT BREAKDOWN STRUCTURE

MNG-54 The PBS shall identify the physical outcomes of the project. It shall define all the products that the project has to produce. The product breakdown structure shall show the scope broken down in a hierarchical manner and at a sufficient level to ensure a clear understanding of the product and its status. It shall identify all components of the system, hardware and software, the Infrastructure, the Service, and documentation required by the Contract.

MNG-55 Each constituent sub-product shall be related to a precise sub-set of the System Requirements Specification (SRS) and be identifiable to the Contract (SSS).

MNG-56 The Product Description shall be sufficient to understand the purpose and function of the product and the level of quality required of the product.

MNG-57 The PBS shall include the percentage of accomplishment for each sub component. This status shall be included in the highlight reports.

MNG-58 The Contractor shall provide the initial baseline version of the PBS within four weeks after WP1 PDR.

MNG-59 The PBS shall be put under Configuration and Change Control.

3.2.2.2 PROJECT WORK BREAKDOWN STRUCTURE

MNG-60 The Contractor shall establish and maintain a Project Work Breakdown Structure (PWBS).

MNG-61 The Contractor shall capture 100% of the work defined by the project scope, as well as all deliverables in terms of the work to be completed, including project management, in the PWBS.

MNG-62 The Project Work Breakdown Structure shall include:

1) The definition of all the work packages and the relationship between the work packages and the end product;

2) The description of the work packages to a level that exposes all project risk factors and allows accurate estimate of each work item's duration, resource requirements, inputs and outputs, and predecessors and successors;

3) For each work item its location, duration, resource requirements, inputs and outputs, predecessors and successors, assumptions, constraints, dependencies, and requirements for Purchaser support;

4) The PWBS shall include a PWBS Dictionary that identifies for each work item its duration, resource requirements, inputs and outputs, predecessors and successors, assumptions, constraints, dependencies, and requirements for the Purchaser support.

MNG-63 The Contractor shall not change the PWBS or PWBS Dictionary without the approval of the Purchaser.

3.2.2.3 PROJECT MASTER SCHEDULE

MNG-64 The Contractor shall establish and maintain a Project Master Schedule (PMS).

MNG-65 The PMS shall contain all Contract events and milestones, including Contract-related Purchaser activities and events (e.g., Purchaser reviews, provision of specific Purchaser-furnished items).

MNG-66 The PMS shall identify, when PFE are required throughout the Project life so that it can be implemented/integrated in a timely fashion.

MNG-67 All Contractor and Purchaser activities and milestones related to Integrated Product Support (IPS), Configuration Management (CM) and Quality Assurance (QA) shall be identified and included in the PMS.

MNG-68 The PMS shall provide the duration, sequence, and resource effort to deliver tasks providing a realistic assessment of the scope of work involved.

MNG-69 The PMS shall include the delivery dates for all products identified in the SSS.

MNG-70 The PMS shall correlate with the PWBS and also be traceable to performance and delivery requirements of this SOW.

MNG-71 The PMS shall identify the start and finish dates, duration, predecessors, successors, and resource (including person-day) requirements for each work item.

MNG-72 The PMS shall identify the progress for each task.

MNG-73 The PMS shall include the delivery dates for all management products (e.g., project plans, design documents, Project Progress Reports), including at least the initial submission, the review cycles and the final delivery.

MNG-74 The PMS shall include activity network, activity Gantt, milestone, and critical path views of the project schedule.

MNG-75 The PMS shall be based on Microsoft Project 2010. Any changes to this version shall be approved by the Purchaser.

3.2.2.4 RISK MANAGEMENT

MNG-76 The Contractor shall establish a risk management process and perform risk management throughout the period of performance of this Contract.

MNG-77 The Contractor's Risk Management process shall enable and define identification of all types of risks, evaluation and prioritization of each risk, definition of proposed response strategy, owner and actions and suggested monitor and control mechanisms.

MNG-78 The Contractor shall provide objective evidence, that risks are considered during planning, including but not limited to Risk Identification, Risk analysis, Risk Control and Risk Mitigation.

MNG-79 The Contractor shall establish a Risk Management Plan (RMP).

MNG-80 The Contractor shall document, update and maintain status of all risks in the Risk Log, as an Annex to the RMP.

MNG-81 The Contractor shall update the Risk Log at minimum on a monthly basis and upload it on the Collaborative Environment in a format agreed with the Purchaser.

MNG-82 The Contractor shall brief the Risk Log at all Project Progress Meetings and Design Reviews.

MNG-83 The RMP shall be developed by establishing and maintaining a strategy for identifying, analyzing, and mitigating risks.

MNG-84 The risk management strategy shall address the specific actions and management approach used to apply and control the risk management program. This shall include identifying the sources of the risk, the scheme used to categor ise risks, and the parameters used to evaluate.

MNG-85 The RMP shall be under configuration control.

MNG-86 The RMP shall include:

1) Risk Management processes and measurement methodology;
2) Key Risk Categories;
3) Risk Prioritization Matrix;
4) Risk Management organisation, roles and responsibilities;
5) Requirements for communicating risks and risk status with the Purchaser;
6) Risk Log.

MNG-87 The Risk Log shall list all the risks, and indicate for each one the following information (but not limited to):

1) Risk identifier: unique code to allow grouping of all information on this risk;
2) Description: brief description of the risk;
3) Risk category (e.g. management, technical, schedule, quality and cost risks);
4) Impact: effect on the project if this risk were to occur;
5) Probability: estimate of the likelihood of the risk occurring;
6) Risk rating (High, Medium, Low);
7) Proximity: how close in time is the risk likely to occur;

8) Response strategy: avoidance, mitigation, acceptance, transference;

9) Response plan(s): what actions have been taken/will be taken to counter this risk;

10) Owner: who has been appointed to keep an eye on this risk;

11) Author: who submitted the risk;

12) Risk Stakeholders;

13) Date identified: when was the risk first identified;

14) Date of last update: when was the status of this risk last checked;

15) Status: e.g. closed, reducing, increasing, no change.

3.2.2.5 ISSUE MANAGEMENT

MNG-88 The Contractor shall establish and maintain a process for identifying, tracking, reviewing, reporting and resolving all project issues.

MNG-89 The Contractor shall establish and implement a quality/product assurance Issue Tracking System (ITS) to ensure prompt tracking, documentation and correction of problems and deficiencies, during the lifecycle of the Contract.

MNG-90 The Contractor shall propose an Issue Management Plan (IMP)

MNG-91 The Contractor shall develop and maintain an Issue Log where all project issues are recorded and tracked regardless of their status, as an Annex to the IMP.

MNG-92 The Contractor shall update and maintain the Issue Log throughout the period of performance of this Work Package.

MNG-93 The Contractor shall update the Issue Log at minimum on a monthly basis on the Collaborative Environment in a format agreed with the Purchaser.

MNG-94 The Contractor shall brief the Issue Log at all Project Review Meetings and Design Reviews.

MNG-95 The IMP shall outline the general processes and techniques to monitor, control, report the issues affecting the project both in technical and administrative terms in all phases of the project. The IMP shall be under configuration control.

MNG-96 The IMP shall include:

1) Issue Management processes (identification, reporting, assessment, and logging of project issues);

2) Issue Log.

[116] A Project Issue is anything that affects the Project, either detrimental or beneficial (e.g. problem, error, anomaly, risk occurring, query, change in the project environment, change request, off-specification).

[117] In accordance with PRINCE2 an issue is defined as, “a relevant event that has happened, that was not planned, and requires management action”. It can be any concern, query, and request for change, suggestion or off-specification raised during a project. Project issues can be about anything to do with the project”.

MNG-97 The Issue Log shall comprise the following information (but not limited to):

1) Project Issue Number;

2) Project Issue Type (Request for change, Off-specification, general issue such as a question or a statement of concern);
3) Author;
4) Date identified;
5) Date of last update;
6) Description;
7) Action item/Decision;
8) Responsible person (individual in charge of the action item);
9) Suspense date (Suspense date for the action item);
10) Priority;
11) Status.

MNG-98 The Issue Log shall be maintained in a format where sorting and filtering of issues is possible.

MNG-99 The ITS shall implement a lifecycle (status, responsibilities, relationship to affected Contract requirements, if applicable, and due dates) for each recorded deficiency.

MNG-100 If the Contractor becomes aware at any time before acceptance by the Purchaser that a deficiency exists in any supplies, the Contractor shall log it in the ITS, coordinate with the Purchaser and promptly correct it.

MNG-101 The Contractor shall demonstrate that all deficiencies are solved / closed before product acceptance.

MNG-102 When the Contractor establishes that a Purchaser Furnished Equipment (PFE) product is unsuitable for its intended use, it shall immediately report to and coordinate with the Purchaser the remedial actions to be taken.

MNG-103 The Contractor shall ensure that only acceptable products, intended for delivery, are released. The Purchaser reserve the right to reject non-conforming products.

3.2.3 COMMUNICATION PLAN

MNG-104 The Contractor shall submit a Communication Plan (CP) that shall describe:

1) How the communication with the Purchaser, in a collaborative manner, will be carried out to ensures a successful project;
2) How the Contractor shall facilitate and chair its varying workshops and meetings, including the pre/post-event activities the Contractor will be responsible for;
3) The Contractors PMP shall define this communication plan and the kick-off-meeting will determine how that way-of-working matures for the project. The Communication Plan will cover:
4) There will be both formal deliverable meetings and a day-to-day interaction where the Purchaser's PM will be in communication with the Contractor's PM thus ensuring any problems or opportunities can be acted upon in a timely manner.
5) Any Contractor communications regarding the execution of this project shall only be conducted with the Purchaser's PM, who shall ensure that relevant stakeholders and Points of Contact (PoC) are notified.

6) No third party outside of the TDCIS project organisation shall be offered and, or accept any guidance, instruction, or information regarding the project, unless it comes from the Purchaser's PM.

3.2.4 PROJECT MASTER TEST PLAN (MTP)

MNG-105 The Contractor shall deliver a Master Test Plan (MTP) and the MTP shall comply with SOW Section 8.3.1.

MNG-106 The MTP shall describe how the Contractor:

1) Shall deliver all the necessary tests, inspections and demonstrations;
2) Intends to deliver its test strategy;
3) Facilitate and chair its MTP workshops and meetings;
4) Activities will be delivered for system verification;
5) Shall deliver the commissioning and acceptance process;
6) Shall support the capability evaluation activities of OpTEVal;
7) Shall support the transition to service of Batch 1, 2 and 3;
8) Shall document and provide notification of entry and exit to each test transition;
9) How certification shall be obtained from the relevant authority.

3.2.5 SERVICE TRANSITION PLAN

MNG-107 Utilising the principles of ITIL v4, the Contractor shall produce a Service Transition Plan (STP), presenting it to the Purchaser 2 months before the start of the FSA.

MNG-108 The STP shall cover:

1) The relevant IPS aspects (e.g. PSDB and CSDB) of Section 4
2) The relevant and CM aspects (e.g.: CMDB) of Section 6;
3) The Service transition deliverables of Section 8;
4) Transition Planning & Support;
5) Service Asset & Configuration Management (SACM);
6) Service Validation & Testing (SVT);
7) Knowledge Management (KM);
8) Change Management (CM);
9) Release & Deployment Management (RADM).

3.3 PROJECT MEETINGS

3.3.1 PROJECT KICK-OFF MEETING

MNG-109 The Contractor shall support a Contract Kick-off Meeting (KOM), meeting with the Purchaser's Contracting Officer at the Purchaser's facility (The Hague-Netherlands, Brussels-Belgium or Mons-Belgium) within two weeks after Contract Award to review the schedule of activities and to discuss any preparations or coordination required to support DCIS implementation effort.

[118] Attendance in person is necessary.

MNG-110 At KOM, the Contractor shall also present updated elements of the Project's Implementation: Project Management Plan, the Project Master Schedule, the Risk log, the Configuration Management process, the Configuration Status Accounting database, the Quality Management process and the Collaborative Environment.

MNG-111 The Contractor shall identify any pre-requisites to support the implementation of present contract.

MNG-112 The Contractor shall provide templates for all types of site surveys for review and approval by the Purchaser.

MNG-113 Following this initial meeting, the Contractor shall conduct Project Review Meetings (PRM) every 6 (six) weeks, in adherence to the requirements in the following section.

3.3.2 PROJECT REVIEW MEETINGS

MNG-114 The Contractor shall arrange Project Review Meetings (PRM) with the Purchaser to occur on a regular basis or at the request of the Purchaser if the situation requires.

MNG-115 The location of the meetings will ordinarily be at Purchaser`s or Customer's premises. Other NATO locations, or at the Contractor's premises may be used if Purchaser and Contractor both consent or videoconferencing facilities may be if required.

MNG-116 Unless otherwise specified, at least two weeks before all meetings required under this Contract, the Contractor shall send an invitation, including:

1) Purpose;
2) Agenda;
3) List of participants;
4) Date, hour, place, duration.

MNG-117 If meeting facilities at a Purchaser (or Customer) location are not available at the specified Purchaser (or Customer) location in the time frame required to support a meeting, the Contractor shall:

1) Reschedule the meeting to such time as meeting facilities are available at the Purchaser location, with no further adjustment to schedule or cost; or
2) Provide suitable meeting facilities (e.g., hotel meeting facility) for the meeting/review at no additional cost to the Purchaser; or
3) Arrange to host the meeting at the Contractor's facility. This facility shall be provided at no additional cost to the Purchaser.
4) In the event no facilities are available or accessible, the Collabortive Working Environment shall be used to best effect in achieving the meetings'objectives.

MNG-118 The Contractor shall provide minutes of all meetings. The Minutes shall include:

1) Date, place, and time of the meeting;
2) Purpose of the meeting;
3) Name of participants;
4) Approval of previous meeting's minutes and all resolutions;

5) Record of principle points discussed, actions taken, and decisions made;

6) Copies of materials distributed at the meeting.

MNG-119 The minutes shall not be used as a mechanism to change the terms, conditions or specifications of the Contract nor as a vehicle to alter the design or configuration of equipment or systems. Such changes shall only be made by agreement, amendment or by authorized mechanisms as set forth in the Contract.

MNG-120 In addition to the mandatory meetings, the Contractor shall support ad-hoc meetings. These meetings will be held in NCI Agency offices at Mons or Waterloo. They will last 2 days maximum. These meetings will be devoted to discussing management issues, technical issues, or both. Technical issues will be discussed through Joint Technical Reviews.

MNG-121 Dates for the PRM shall be mutually agreed between the Purchaser and the Contractor.

MNG-122 PRM shall by default take place at the Purchaser's premises. When coinciding with System Design Reviews, the PRM shall take place at the Contractor premises.

MNG-123 All types of communication including the meetings, phone calls, correspondences and project documentation shall be in English.

MNG-124 If the programme of a given PRM cannot be fulfilled at the intended date owing to one or more CDRL products being late and/or failure to meet the required quality criteria, the PRM shall be delayed and re-scheduled following mutual agreement between the Purchaser and the Contractor. In such circumstances the Purchaser may call one or more Ad-Hoc Meetings, in order to discuss project progress outside the nominal PRM sequence.

[119] Video-Teleconference (VTC) may be used at PRM in circumstances where it may be difficult to otherwise ensure attendance by the required personnel.

MNG-125 Use of VTC over the NR Collaborative Environment shall be at the Purchaser's discretion.

MNG-126 Should the Contractor wish to use VTC, a written request with justifications shall be submitted to the Purchaser not less than eight working days in advance of the scheduled meeting.

[120] The Purchaser's PM will chair the meetings.

MNG-127 The normal PRM agenda shall include:

1) Review of the minutes recorded and agreed at the previous PRM;

2) The Contractor's presentation of the Project Progress Report;

3) Schedule Review;

4) Risk Log Review;

5) Issue Log Review;

6) Discussion/resolution of problems and areas of concern;

7) If necessary, a summary of items to be discussed; and

8) Any other business.

MNG-128 During the meetings, the Contractor shall present slides covering all the points of the planned agenda. These slides shall be accessible by the Purchaser at least 5 working days before the meeting.

MNG-129 The Contractor shall attend and provide the meeting's Secretary in all meetings, including those held over VTC links.

MNG-130 During the meeting, the meeting's Secretary shall be fully devoted to capturing the minutes of the meeting for input to the Project Progress Reports.

MNG-131 Draft minutes shall be produced real time during the PRM and shall be agreed, signed and countersigned by the Contractor and the Purchaser representatives, daily, by close of business.

MNG-132 The approval (signatures) of the final content, both recorded discussion items and agreed action items, shall be possible by close of business on the last day of the meeting.

MNG-133 The minutes shall document the topics, problems, discussions and all decisions made and include copies of the current Action Item List (AIL), Project Schedule and Risk Analysis/Assessment, as Annexes.

MNG-134 These minutes shall not be regarded by the Parties as a mechanism to change the terms, conditions or specifications of the Contract nor as a vehicle to alter the design or configuration of equipment or systems. Any such changes shall only be made by Contract amendment or by authorized mechanisms as set forth in this Contract.

MNG-135 The minutes shall not exceed ten (10) pages, unless specifically approved by the Purchaser.

MNG-136 The Contractor shall not consider the minutes as the basis for changes to the terms and conditions of the Scope of Work of the Contract in the absence of a formal Contract Amendment.

MNG-137 The Contractor shall send the final version of the signed draft minutes to the Purchaser not later than 5 working days after the meeting, for final approval by the Purchaser.

MNG-138 The Purchaser can send questions and comments concerning the documentation delivered between two meetings.

MNG-139 The KOM or a PRM shall not last more than 2 (two) days.

MNG-140 PRM shall host the formal revisions and approval of the CDRL products as per the CDRL.

MNG-141 These meetings will normally be held at the Purchaser's premises. They may be be held at Contractor's premises, on-line or at another location at the Purchaser discretion.

MNG-142 On the project's implementation activites relocating to the Customer's home nation, the PRM shall be held in the Contractor's project facility within the Customer's home nation. Videoconferencing facilities are to be used in exceptional circumstances, determined by the Purchaser.

3.3.3 AD-HOC MEETINGS

[121] Ad Hoc Working Meetings (AHM) may be organised by on request of either the Purchaser or the Contractor, pending Purchaser agreement, to resolve problems, clarify project requirements and review progress in between the nominal PRM sequence.

[122] These meetings will normally be held at the Purchaser's / Customer's premises and, or teleconferencing facilities.

MNG-143 Minutes of the Ad Hoc Working Meetings shall be written real time by the Contractor and sent to the Purchaser within 5 working days following the meeting. Comments received will be taken into account and incorporated. Once the Minutes are accepted by both parties' respective Project Managers, the Contractor shall upload the final version to the Collaborative Working Environment.

3.3.4 JOINT TECHNICAL REVIEWS

MNG-144 The Contractor shall organise and conduct joint technical reviews, as defined in IEEE 12207, (Table **Error! Reference source not found.**, Appendix A) to address and resolve critical technical issues in advance of major reviews such as Requirements, Design or Test Reviews.

MNG-145 The Contractor shall propose the subject and the timing of the joint technical reviews to ensure the most critical technical risks are raised and mitigated as early as possible. The joint technical reviews should be planned as early as possible but as a minimum 4 weeks in advance to provide sufficient time for the identification of appropriate operational users and arrangements for their participation.

MNG-146 The Contractor shall deliver the following information at least two weeks prior to each review: a meeting agenda and a list of issues to be reviewed, with an impact assessment, root cause of the issue (evidence) and possible solutions per issue.

MNG-147 Unless otherwise agreed by the Purchaser, all joint technical reviews shall be conducted at a Purchaser facility. The specific date and location must be agreed between the Contractor and the Purchaser's Project Manager.

MNG-148 The Contractor shall provide all relevant resources including personnel, hardware, software, and tools at each review.

MNG-149 The Contractor shall provide the following items at each review: presentation and discussion of each issue, including relevant technical material, such as requirements references, design specifications, views, use cases, operational employment scenarios, screenshots, or prototypes, or developmental baseline release.

3.4 PROJECT PROGRESS REPORTS (PPR)

MNG-150 This PPR shall summarise the progress since the previous PRM or since the last PPR, any accomplishments, schedule of deliveries against progress, difficulties encountered and resolution of any issues raised in previous PRMs. The PPRs shall include:

1) Overall project progress: the activities performed and works completed during the preceding period including major milestones achieved as applicable;
2) Description of issues/problems/risks that have occurred in the preceding period and the identified/proposed solution (Issue Log);
3) A list of Change Proposals with the current status;
4) Configuration Status Reports (CSR) for the system and all documentation (CDRL);
5) Answers to questions addressed by the Purchaser between two meetings;
6) The progress of work related to the schedule in the current PMS;

7) Status of the equipment (equipment order, in Contractor's office, packing, transfer to site, deploy and test);
8) Any foreseen or possible changes to project performance or schedule. In case of changes, the Contractor shall give the updated performance or schedule;
9) Description of any identified problems and high risk areas and the proposed solutions and corrective actions;
10) Activities planned for the next period;
11) Supplies to be delivered by the Contractor and those to be provided by the Purchaser;
12) Update on the status of Action Items List (AIL).

[123] Upon receipt of the PPR, and in absence of a Project Review Meeting opportunity near, the Purchaser can call for an Ad-hoc meeting with the Contractor (refer to Section 3.3.3), for the purpose of reviewing or discussing the PPR contents. The meeting may either involve physical presence, or take place over a video conference session.

MNG-151 The Contractor shall maintain an archive of PPR.

MNG-152 The Contractor shall prepare and submit a Project Progress Report (PPR) to the Purchaser every 6 weeks, 2 weeks prior to the PRM, and throughout the performance period of the contract.

MNG-153 The Contractor shall maintain an archive of PPR on the TDCIS Collaborative Environment.

3.5 SITE SURVEYS

MNG-154 Site Surveys shall collect information on the site or sites of interest, into a Site Survey Report (SSR), covering at least the following data:

1) All the information relevant to the physical installation of the new equipment at the site;
2) Any CIS security implications (in terms of Security Accreditation) at each site, including integration and interaction with already existing cybersecurity components;
3) Floor plan layouts of installation spaces (equipment rooms, corridors, offices);
4) Temporary equipment storage spaces;
5) Cabling (routing, configuration and wiring assignment);
6) Availability of electrical power and electrical power conditioning;
7) Environmental conditioning;
8) Points of contact, including the local SAA of the site.

3.6 COLLABORATIVE WORKING ENVIRONMENT

MNG-155 The Contractor will be provided one per identified key Personnel, Agency NATO R*STRICT*D (NR) Reach laptops (PFE) and access to TDCIS Portal/website, hosted by the Purchaser at NR level. This shall be used as the master repository

where the Contractor shall store all Project related documentation deliverables and maintain their up keep for the duration of the Contract.

MNG-156 The Reach service will be a Contractor paid-for-service, as detailed in the Contract.

MNG-157 The website shall be used to share working documentation to ensure easy access.

MNG-158 The CWE structure shall be proposed by the Contractor and shall be subject to agreement by the Purchaser's PM.

MNG-159 All documentation, subject to formal review and acceptance by the Purchaser, shall be clearly identified up front to allow the Purchaser to conduct the review. The Contractor shall provide a review sheet with each document for Purchaser to list their comments. The Contractor shall provide the proposed actions and responses in the same sheet before the next review cycle.

MNG-160 The Contractor shall use organised folder structure to clearly identify the documents (with their CI numbers) and their working versions from the released versions. Each document type folder should have two separate folders to clearly distinguish the released versions from the working versions including the document review sheet.

MNG-161 The Contractor shall implement an access control mechanism to restrict viewing of all documentation on the CWE to a list of users approved by the Purchaser and administered by the Contractor.

MNG-162 The CWE Portal site shall allow the Purchaser access to the management documentation.

MNG-163 The CWE Portal shall allow the Purchaser access to the finished and in-progress items, including design specifications, documentation, source code, installers and executables.

MNG-164 The Contractor shall present a proposed design for the CWE no later than six weeks after Contract Award.

MNG-165 The Contractor shall populate and activate this website within eight weeks after the Contract Award.

3.7 SECURITY ASPECTS

MNG-166 Contractor's premises shall be able to handle information up to and including NATO S*CR*T.

MNG-167 All information items used in support of the execution of the project shall be classified and handled according to their security classification.

MNG-168 The Contractor's premises shall be approved by their Government authority to receive, handle and store crypto material.

MNG-169 The Contractor shall ensure that all Contractor and Subcontractor personnel that shall work for this Project or have at a minimum, a valid NATO S*CR*T clearance as required by NATO policy.

MNG-170 The Contractor shall follow the Purchaser site access procedure to gain access to the site for the conduct of Project business. The Contractor shall allow time in their planning to achieve this.

4 INTEGRATED PRODUCT SUPPORT

[124] This Section addresses the Integrated Product Support (IPS) requirements of the project. The purpose of this Section is to ensure that the Contractor uses sound best practices to plan, implement, integrate, continuously measure and fine tune the IPS activities, as well as to ensure timely and correct delivery of the project.

[125] The Purchaser will review and approve (in 4 weeks) the IPS deliveries provided under this Contract and subject to review and approval by the Purchaser.

[126] The Purchaser will review and approve (in 8 weeks) Technical Publications and Training Materials provided under this Contract. Upon acceptance of the draft version, the Contractor is allowed to deliver the final version of the technical publications.

IPS-1 The Contractor's internal Life Cycle Management (LCM) process and system shall comply with STANAG 4728 "System Life Cycle Management (SLCM)".

IPS-2 The Contractor shall manage the IPS activities within this Contract by:

a. Providing evidence that the designed system solution is for a **service life of at least fifthteen (15) years** based on the operational conditions required through the development of the activities described in the Integrated Product Support Plan (IPSP) and the In Service Support Plan (ISSP) assuring and managing the supportability of the solution (i.e.: availability for supply of spare parts and/or the relevant repair services);

b. Providing evidence that for a period of at least five (5) years after successful completion of last batch's Final System Acceptance (FSA) by the Purchaser, the system's equipment shall not become obsolete and the Customer shall be able to obtain all necessary spare parts, components and technical expertise for planned routine maintenance and normal repair, following which it shall continue to meet the design performance parameters when operated under design conditions;

c. Appointing an IPS manager for the entire duration of the contract to conduct the IPS Programme that shall:

   i. Be at a level commensurate with the systems engineering and the software engineering managers;

   ii. Be point of contact to interface with the Purchaser on IPS matters;

d. Providing all relevant IPS deliverables (documents, data and activities) as a result of all IPS processes.

IPS-3 The Contractor shall provide the required IPS deliveries in accordance with the following schedule that shall be included in the contractor's Project Master Schedule (PMS) of the PMP in the PIP.

Table 4-1 IPS Deliverables

IPS Deliveries	Issue	Due date
Integrated Product Support Plan (IPSP)	Draft	EDC + 2w
	Final Draft	PDR – 4w
	Final	CDR + 4w
Reliability Availability Maintainability Testability (RAMT) Case Report	Draft	SRR – 4w
	Final Draft	PDR – 4w

IPS Deliveries	Issue	Due date
	Final	CDR – 4w
	Test & Demo	PSA
Failure Mode Effects and Criticality Analysis (FMECA)	Draft	SRR – 4w
	Final Draft	PDR – 4w
	Final	CDR – 4w
Maintenance Task Analysis (MTA) [incl. Product Support Database]	Draft	PDR – 4w
	Final Draft	CDR – 4w
	Final	FAAT + 4w
Level of Repair Analysis (LORA) [incl. Repair Price List (RPL)]	Draft	PDR – 4w
	Final Draft	CDR – 4w
	Final	FAAT + 4w
Packaging, Handling, Storage and Transportation (PHST) Report	Draft	CDR – 4w
	Final	FAAT + 4w
Initial Provisioning List (IPL)	Draft	CDR - 4w
	Final	FAAT + 4w
Obsolescence Report	Draft	CDR – 4w
	Final Draft	FAAT + 4w
	Quarterly	First delivery at PSA + 3m
Warranty Report	Draft	FSA - 6m
	Quarterly	First delivery at FSA + 3m
Operation Manuals	Draft	CDR – 4w
	Final	FAAT + 4w
Maintenance Manuals	Draft	CDR – 4w
	Final	FAAT + 4w
Training Plan (TRNP) [incl. Training NeEDC Analysis (TNA)]	Draft	CDR – 4w
	Final Draft	CDR + 8w
	Final	PSA – 4w
Training documentation	Draft	FAAT – 20w
	Final	Training Start – 4w
Training execution of Testing Personnel	Execution	Immediately before tests
Training execution of Operators (including reports)	Execution	PSA + 1w
	Report	Training End + 4w
Training execution of Maintainers (including reports)	Execution	PSA + 1w
	Report	Training End + 4w
Training execution of Instructors (including reports)	Execution	PSA + 1w
	Report	Training End + 4w
In Service Support Plan (ISSP)	Draft	FSA - 6m
	Final	FSA + 6m

4.1 INTEGRATED PRODUCT SUPPORT PLAN

[127] The Integrated Product Support Plan (IPSP) is the primary document that details the approach to IPS, tailored to meet the needs of a specific product or service. The IPSP includes detailed information for the planning, implementation and co-ordination of the IPS program, together with element plans detailing how the

appropriate IPS elements are addressed. The IPSP is integrated and consistent with other program documentation. The IPSP is a living document and therefore the content will vary depending on the type and phase of any program or project.

IPS-4 The Contractor shall establish, provide, execute and maintain an effective Integrated Product Support Plan (IPSP) in accordance with ASD SX000i iss.3.0.

IPS-5 The IPSP shall:

a. Describe the Contractor's plans for the management control, interface, and integration of all elements of the Contractor's Integrated Product Support with the system engineering and design processes;

b. Establish/describe the policies, procedures, and methodologies to ensure the logistic requirements are achieved and to refine the support to the system;

c. Document the Contractor's plans, organisational structure, procedures and activities implemented, followed and performed to ensure that product support elements influence and interface with system design and other functional areas, to satisfy supportability criteria; and

d. Incorporate Purchaser-approved changes, additions and deletions.

IPS-6 The IPSP shall describe the Contractor's approach and plans for each of the following element:

a. Reliability Availability Maintainability and Testability (RAMT) and Failure Mode Effect and Criticality Analysis (FMECA),

b. Logistics Support Analysis (LSA) including Logistic Data and Database, Supply Support, Packaging Handling Storage and Transportation (PHST),

c. Parts Obsolescence Management,

d. Technical Publications,

e. Training,

f. Support during Warranty and Post Warranty.

IPS-7 The Contractor shall provide the IPSP detailing the relevant content to cover the following structure.

Table 4-2 IPSP Content and Structure

Structure	Content
1	Introduction
2	Documents and Acronyms
2.1	List of Applicable Documents
2.2	List of Reference Documents
2.3	List of Acronyms
3	System Overview
3.1	Architecture
3.2	Operational scenario
3.3	Maintenance Concept
3.4	Support Concept
4	IPS Management
4.1	IPS team and sub-Contractors
4.2	IPS processes and procedure overview
4.3	IPS constraints
4.4	IPS tools
4.5	IPS Contractual Deliverable Requirements List (CDRL)

Structure	Content
5	System Breakdown
6	Reliability, Availability, Maintainability and Testability (RAMT) Plan
6.1	Reliability
6.2	Maintainability
6.3	Testability
6.4	Availability
6.5	Failure Mode Effects and Criticality Analysis (FMECA)
7	Logistics Support Analysis (LSA) Plan
7.1	Maintenance Concept
7.1.1	Preventive/Scheduled maintenance
7.1.2	Corrective/Unscheduled maintenance
7.1.3	Hardware Maintenance Concept
7.1.4	Software Maintenance Concept
7.2	Maintenance Levels Description
7.3	Support Concept
7.4	Support Levels Description
7.5	Maintenance Task Analysis (MTA)
7.6	Level Of Repair Analysis (LORA)
7.7	LSA Database
8	Supply Support Plan
8.1	Manpower and personnel
8.2	Spare Parts
8.3	Tool and Test Equipment
8.4	Facilities
8.5	Packaging, Handling, Storage and Transportation (PHST)
8.5.1	Packing, Coding and Labelling (Packaging)
8.5.2	Delivery and Shipment (Handling and Storage)
8.5.3	Transportation
9	Parts Obsolescence Management
9.1	Evaluation criteria
9.2	Resolution strategies
10	Technical Publications
11	Training
12	In service Support (ISS)
12.1	Warranty period
12.2	Post Warranty period
12.2.1	Post Warranty Services (PWS): Repair On Need
12.2.2	Performance Based Services
12.3	Sub-Contractors

4.2 RELIABILITY, AVAILABILITY, MAINTENABILITY TESTABILITY CASE REPORT

IPS-8 The Contractor shall provide a Reliability Availability Maintainability Testability (RAMT) Case Report that shall include:

a. All COTS equipment data sheets and references, clearly indicating the COTS equipment's reliability and maintainability characteristics used as data input to any of the RAMT activities;

b. The complete set of Reliability Block Diagrams (RBDs), including reliability, maintainability and intrinsic availability allocations per block, per aggregated block, per sub-system, per location, and for the entire system;

c. All draft and final calculations for (ref MIL-HDBK-338B):

i. Reliability (MTBF and MTBCF);

ii. Maintainability (TTR, MTTR, MTTRS and MTBPM);

iii. Testability: Fault Detection (FD) percentage and Fault Isolation (FI) percentage with and without ambiguity;

iv. Intrinsic Availability (Ai);

v. Rationale and justifications for all data and formulas used in any of the calculations and models.

IPS-9 The Contractor shall develop and maintain, in accordance with IEC 61078:2006 or MIL-STD-756B, the Reliability Block Diagrams (RBDs) for the entire system and subsystems, relating all items (i.e. hardware down to LRU level and firmware/software CSCI) based on failure dependencies, and explaining how the reliability of each item contributes to the success or failure of the entire system. Firmware shall be treated as being part of the pertinent LRU.

IPS-10 The reliability predictions shall be in accordance with one of the following:

a. Bellcore/Telcordia SR-332, Ground Fixed Uncontrolled, 30°C Case temperature;

b. HDBK-217Plus and ANSI VITA51, Ground Fixed, 30°C Case temperature;

c. Certified field data (scaling i.a.w. MIL-HDBK-338B table for Environment and Temperatures);

d. A combination of the above.

IPS-11 The reliability predictions shall consider the System duty 100% (components de-rating and local duties may be applied).

IPS-12 The Contractor shall provide detailed and comprehensive historical evolution in versioning for each firmware/software including the technical motivation linked to each release vs the previouse one.

IPS-13 The Contractor shall plan, design and execute **on-site Reliability tests** in accordance with MIL-HDBK-781 to demonstrate the MTBF relevant requirement in the SRS with 90% (ninety percent) confidence (10% Consumer's risk).

IPS-14 The Contractor shall propose a test plan and procedure indicating the minimum number of testing hours based on the cumulative failures as per Chi-Squared test matching the above criteria. The test hours shall be distributed on all the systems with a minimum testing time of 1000 hours per system.

IPS-15 The Contractor shall plan, design and execute the system maintainability/testability demonstration in accordance with IEC 60706-3:2006 test method 1 Annex B or MIL-HDBK-470A Annex B (test plan 1A).

IPS-16 The Contractor shall ensure that the maintainability/testability demonstration addresses both hardware and firmware/software maintenance tasks.

IPS-17 The Contractor shall demonstrate the MTTR requirement in the SRS by providing 90% (ninety percent) confidence.

IPS-18 The Contractor shall demonstrate system diagnostic capability (fault detection and isolation) in accordance with the relevant requirements set in the SRS.

IPS-19 The Contractor shall provide the RAMT Case Report detailing the relevant content to cover the following structure.

Table 4-3 RAMT Case Report Content and Structure

Structure	Content
1	Introduction
2	Documents and Acronyms
2.1	List of Applicable Documents
2.2	List of Reference Documents
2.3	List of Acronyms
3	System Breakdown Description
4	Design for Reliability
4.1	Reliability Prediction Formulas
4.2	Reliability Block Diagram
4.3	Reliability Prediction
5	Design For Maintainability
5.1	Maintainability Prediction Formulas
5.2	Maintainability Prediction
6	Design For Testability
6.1	Testability Prediction Formulas
6.2	Testability Prediction
7	Availability
8	Conclusions

IPS-20 The Contractor shall provide one .xls spreadsheet as annex of the RAMT Case Report in accordance with the following content and structure:

a. **Product Breakdown**: Level, Description, Cage Code, Part Number, Quantity;

b. **Reliability**: Critical item (Y/N), Source data (Calculated / Predicted / Estimated / Contractor evidence), Failure rate (fpmh), MTBF (h), Redundancy model, MTBCF(h);

c. **Maintainability**: TTR (h), MTTR (h), MTTRS (h), MTBPM (h), Mpt (h);

d. **Testability**: Fault detection (FD%), Fault Isolation [FI(1LRU)%, FI(2LRU)%, FI(3LRU)%, FI(>3LRU)%].

4.3 FAILURE MODE EFFECT & CRITICALITY ANALYSIS

IPS-21 The Contractor shall provide a **Failure Mode Effect and Criticality Analysis (FMECA)** down to the hardware LRU and firmware/software CSCI level in accordance with IEC 60812:2018 or MIL–STD–1629A.

IPS-22 The Contractor shall provide functional descriptions for the systems and allocated to the subsystems, covering all operational modes and mission phases.

IPS-23 The Contractor shall perform a functional FMECA considering the effects of failure of hardware LRU and firmware/software CSCI level directly to the functions that shall be lost or degraded.

IPS-24 The Contractor shall identify critical items as the items (hardware LRU and firmware/software CSCI) whose failure induce loss of critical function.

IPS-25 In case of catastrophic and/or safety critical failures have been identified through the FMECA, the Contractor shall perform a **Fault Tree Analysis (FTA)** down to the SRU or CSC level as appropriate for development items in accordance with MIL–HDBK–338B.

IPS-26 The Contractor shall provide FMECA detailing the relevant content to cover the following structure.

Table 4-4 FMECA Content and Structure

Structure	Content
1	Introduction
2	Documents and Acronyms
2.1	List of Applicable Documents
2.2	List of Reference Documents
2.3	List of Acronyms
3	System Breakdown Description
4	FMECA Procedures
5	Failure Mode Effects Analysis (FMEA)
6	Criticality Analysis (CA)
7	Criticality Matrix (CM)
8	Conclusions

IPS-27 The Contractor shall provide one .xls spreadsheet as annex of the FMECA in accordance with the following content and structure:

a. **Product Breakdown**: Level, Description, Cage Code, Part Number;

b. **Failure Mode Effects Analysis (FMEA)**: Failure Modes, Mission Phase / Operational Mode, Failure effects (Local Effects, Next Higher Level, End Effect), Failure Detection Method, Compensating Provisions, Severity Classification, Remarks;

c. **Criticality Analysis (CA)**: Failure probability, Failure Effect Probability (β), Failure Mode Ratio (α), Failure Rate (λp), Operating Time (t), Failure Mode Crit Number [Cm=β α λp t], Item Crit Number [Cr=∑(Cm)], Remarks;

IPS-28 The Contractor shall also provide Criticality Matrix (CM) summary tables for:

a. Criticality vs Failure probability vs Severity classification;

b. Apportionment of criticality vs Failure end effect;

c. Apportionment of criticality vs Manufacturer (Cage Code).

4.4 MAINTENANCE TASK ANALYSIS

IPS-29 The Contractor shall provide a **Maintenance Task Analysis (MTA)** down to the hardware LRU and firmware/software CSCI level compliant with ASD S3000L iss.2.0.

IPS-30 The Contractor shall provide the MTA, covering hardware and software, that summar ises the maintenance planning:

a. Analysing the results of the FMECA to identify candidate corrective maintenance tasks;

b. Identifying procedures, spares and materials, tools, support equipment, personnel skill levels, estimated and elapsed times as well as any facility issues that must be considered for a maintenance task;

c. Identifying scheduled maintenance tasks and develop a scheduled maintenance programme at each Level of Maintenance (HL/SL 1-4) allocated to the appropriate Level of Support (LoS 1 to 4) for the TDCIS systems, that is consistent with the maintenance concept described for the intended use of the system. The decision logic used for task selection shall implement the following priorities:

i. Avoidance of safety and mission critical failures;

ii. Achievement of system availability requirements;

iii. Sustainability of deployed operations in accordance with the intended use and the logistics support environment of the system;

iv. Minimization of Life Cycle Cost;

d. Identifying the operation support tasks required to support operational readiness of the system;

e. Considering ad hoc pre deployment and post deployment maintenance actions to allow no down time (i.e.: zero hours) due to preventive/scheduled maintenance during deployment;

f. Assessing for each maintenance task: skill levels, tools and test equipment required, facilities, spares and consumables, duration.

IPS-31 The Contractor shall provide the MTA detailing the relevant content to cover the following structure.

Table 4-5 MTA Content and Structure

Structure	Content
1	Introduction
2	Documents and Acronyms
2.1	List of Applicable Documents
2.2	List of Reference Documents
2.3	List of Acronyms
3	System Breakdown Description
4	MTA Approach
4.1	Levels of Maintenance
4.1.1	Hardware Levels of Maintenance
4.1.1.1	HL1
4.1.1.2	HL2
4.1.1.3	HL3
4.1.1.4	HL4
4.1.2	Software Levels of Maintenance
4.1.2.1	SL1
4.1.2.2	SL2
4.1.2.3	SL3
4.1.2.4	SL4
4.2	Task Justification
4.3	Task Structure
4.3.1	Unscheduled and Corrective Maintenance Task structure
4.3.2	Scheduled and Preventive Maintenance Task structure
4.4	MTA Data Element
5	MTA Output
6	Conclusions

IPS-32 The MTA shall provide spreadsheet as an annex with the following tables in:

a. **Logistic Breakdown Report – LBR** : worksheet that hierarchically list the logistic breakdown and the link with the PBL containing at least the following information: Indenture level, Breakdown Element Identifier, Cage code, Part Number, Breakdown Element Name, Part as Designed Name, SMR Code, Qty, Qty for End Item, Unit of Measure (UM), MTBF, UM, MTTR, UM;

b. **Maintenance Index Report – MIR** : worksheet that list all maintenance (scheduled and unscheduled) containing at least the following information: Indenture level, Breakdown Element Identifier, Cage code, Part Number, Breakdown Element Name, Part as Designed Name, SMR Code, Task Identifier, Task Name, Type, Task Frequency, UM, Task Duration, UM, MTBF, UM, MTTR, UM, Task Labour Time, UM;

c. **Maintenance Report – MR** : worksheet that details all maintenance (scheduled and unscheduled) including all resources details (materials, personnel, facilities) with subtasks and duration details per skill and per subtask;

d. **Material Resource Report – MRR** : shall include the following vistas:

i. Material Resource List : the list of all the resources with associated type (e.g.: spare, consumable, common tools, special tools);

ii. Material Resource Utilization: the list of all the resources with associated maintenance where the resource is used;

iii. Material Resource Annual Use: the list of all the resources with the calculated annual use based on the task frequency.

e. **Personnel Report – PR** : shall include the following vistas (same as MRR but for personnel): Personnel List, Personnel Utilization, Personnel Annual Use;

f. **Facilities Report – FR** : shall include the following vistas (same as MRR but for facilities): Facilities List, Facilities Utilization, Facilities Annual Use.

IPS-33 The MTA shall also provide summary tables for:

a. Total Quantity of Maintenance Tasks as per Table 4-6.

Table 4-6 Total Quantity of Maintenance Tasks

Level of maintenance	Scheduled			Unscheduled			Total		
	HW	SW	Sum	HW	SW	Sum	HW	SW	Sum
HL1/SL1									
HL2/SL2									
HL3/SL3									
HL4/SL4									
Total									

b. Mean Annual Downtime and Mean Annual Workload as per Table 12 (noting that one table for HW+SW Maintenance, one table for HW Maintenance, and one table for SW Maintenance).

Table 4-7 Maintenance Downtime and Workload

Level of maintenance	Scheduled		Unscheduled		Total	
	Elapsed time (h)	Man workload (h)	Elapsed time (h)	Man workload (h)	Elapsed time (h)	Man workload (h)
HL1/SL1						
HL2/SL2						
HL3/SL3						
HL4/SL4						
Total						

c. Scheduled maintenance grouped by periodicity using as many columns as periodicity defined; see Table 13, (noting that one table for HW+SW maintenance, one table for HW maintenance, and one table for SW maintenance).

Table 4-8 Scheduled Maintenance Record

Level of maintenance	(e.g.: daily)					…
	Quantity	Mean elapsed time (h)	Mean man workload (h)	Total elapsed time (h)	Total man hours (h)	
HL1/SL1						
HL2/SL2						
HL3/SL3						
HL4/SL4						
Total						

IPS-34 The Contractor shall provide a **Product Support Database (PSDB)** as annex to each issue of the MTA down to the hardware LRU and firmware/software CSCI level that shall match the Product Baseline (PBL), shall be coherent with the relevant information contained in the Technical Publications and Training Materials and shall be fully compliant with ASD S3000L iss.2.0 as per NCIA instructions.

IPS-35 The PSDB shall contain and collect all relevant information and data coming from the IPS reports and analysis coming from RAMT, FMECA, MTA, LORA and PHST.

IPS-36 The PSDB shall provide a Logistics Database in .xls that shall match the PBL and shall include information fields required for each HW and SW (including Firmware) item to be provided/updated:

a. **Indenture level**: Level of indenture starting from the system that is the first level and classified as End Item;

b. **Breakdown Element Identifier (BEI)**: String of characters used to uniquely identify a Breakdown Element and to differentiate it from other Breakdown Elements that comprise a product. Note: used to establish a hierarchical structure of the technical system;

c. Reference Designator (in accordance with ASME Y14.44);

d. Subsystem;

e. **Breakdown Element Name**: Word or phrase by which the breakdown element is known and can be easily referenced;

f. **Part Logistic Category**; these identifications can be used to define an item (HW or FW/SW) as designed in the context of product support:

i. EI - End Item and SS – System Subsystem;

ii. Hardware (HW) Maintenance Significant Items (MSI):

1) LS - Statistical Life LRUs (e.g.: Computers, Power PCs, Switches, Routers, IF modules, RF modules, Breakers, Power Supplies, Monitors, Modems, Power Amplifiers);

2) LL – Limited Life LRUs (e.g.: Batteries, flexible waveguides, oscillators);

3) II – Insurance Items [e.g.: docking stations, Keyboards, Mice, Cables, mechanical parts (e.g. Racks, drawers), simple E/M parts (e.g. patch panels)];

4) C[T] – Technical Consumables (e.g.: fuse, gas discharger, surge protection devices, lamps, bulbs, led);

5) C[NT] – Non-Technical Consumables [e.g.: POL (Petrol, Oils, Lubricants), water, gas];

6) C[G] – Generic Consumables (e.g.: printer cartridges, toners, printers' paper);

7) AP – Attaching Parts [e.g.: washers, gaskets (not EMI), nuts, bolts, screws].

g. Software (SW):

1) SWA – Application Software [e.g.: Contractors' developed application SW, COTS application SW (e.g. MS Office, Adobe Acrobat)];

2) SWO – Software Operating Systems (e.g.: Linux, Unix, MS Windows, LynxOS, Android, IOS);

3) FW – Firmware;

4) DD – Device drivers.

h. **Support equipment and tools**: CHT (Common Hand Tool), CSE (Common Support Equipment), PSE (Peculiar Support Equipment);

i. Manufacturer item data: Cage Code, Part Number, Part Nomenclature;

j. Vendor/Contractor item data: Cage Code, Part Number, Part Nomenclature;

k. Item characteristics: LRU (Y/N), Serialized Item (Y/N); Mean Time Between Failures (MTBF) (in hours); Mean Time To Repair (MTTR) (in hours); LRU Maintenance Level (HL/SL 1 to 3 included); HW part repairability (Y/N); NATO Stock Number (NSN); Unit Price and Currency; Provisioning Lead Time (PLT) (days); Turn Around Time (TAT) (days).

l. **Quantity**: Qty per line item; Qty in Next Higher Assy; Qty in End item.

4.5 LEVEL OF REPAIR ANALYSIS

IPS-37 The Contractor shall provide a **Level Of Repair Analysis (LORA)** down to the hardware LRU and firmware/software CSCI level compliant with ASD S3000L iss.=2.0.

IPS-38 The Contractor shall provide the LORA to recommend the most cost efficient solution for the maintenance level at which each maintenance task should be performed and the decision to repair or discard unserviceable LRUs:

a. Generating a LORA candidate list containing those items whose maintenance task is not clearly allocated as NATO Maintenance Task (NMT) or Industry Maintenance Task (IMT) as a consequence of the MTA and for which a repair/discard decision is not immediately evident;

b. Determining the level (HL1-4 or SL1-4) and the location at which each maintenance task should be performed, including detail on any NMT for which specific limited support by industry personnel is recommended.

IPS-39 The Contractor shall provide the LORA detailing the relevant content to cover the following structure.

Table 4-9 LORA Content and Structure

Structure	Content
1	Introduction
2	Documents and Acronyms
2.1	List of Applicable Documents
2.2	List of Reference Documents
2.3	List of Acronyms
3	System Breakdown Description
4	LORA Approach
4.1	LORA Candidate Item List (CIL)
4.2	Repair vs Discard Decision
4.3	Maintenance concept
4.4	Support concept
4.5	Logistics Support Scenario (Maintenance and support concept relations)
4.6	LORA CIL Fields
5	Conclusions

IPS-40 The Contractor shall provide a **Repair Price List (RPL)** as an annex to the final issue of the LORA.

4.6 OBSOLESCENCE REPORT

IPS-41 The Contractor shall perform the Parts Obsolescence Management during the project execution up to the end of warranty period providing **Obsolescence Report** for hardware LRU and firmware/software CSCI to keep the Purchaser informed about any potential obsolescence problems or risks providing the end of sale, end of production, end of support, risk mitigation strategies and proposed risk recovery actions.

IPS-42 The Contractor shall recommend, as part of the Obsolescence Report:

a. A replacement (if available), when the designation of a replacement item becomes necessary due to discontinuance of support;

b. Either to implement an Off-The-Shelf (OTS) solution and modify the requirement accordingly or redesign a suitable alternative, when the recommended OTS item is not fully compliant with the Contract Requirements;

c. Items with form, fit and function features will be given first preference to avoid development costs.

IPS-43 The Contractor shall provide a Obsolescence Report jointly with an .xls file that shall include information fields required for each hardware LRU and firmware/software CSCI to be provided/updated:

a. **Breakdown Element Name**: Word or phrase by which the breakdown element is known and can be easily referenced;

b. **Manufacturer item data**: Cage Code, Part Number, Part Nomenclature;

c. **Vendor/Contractor item data**: Cage Code, Part Number, Part Nomenclature;

d. **Quantity**: Qty in End item;

e. **Product current status:** Cancelled without alternative Form Fit and Function (FFF) replacement, Off production but on the stock (last buy), On production, Cancelled with alternative FFF replacement;

f. Product current status rationale/evidences:

   i. for HW [e.g.: production started in "year", last update in "year", support availability till "year" or End of life date (if any)]

   ii. for FW/SW (e.g.: release date of the item, support of this version till "year")

g. Warranty and Service:

   i. for HW (e.g.: warranty duration granted when procured, Provisionning Lead Time, Repair cycle time)

   ii. for FW/SW (e.g.: software comunity (shareware/freeware), open source, …)

h. **Risk - Item criticality:** This risk category addresses the degree to which an item (whether or not it is an assembly or a component used to repair an assembly) is critical to the functionality of the system and ultimately the operational readiness of the unit employing that system. (e.g.: from FMECA criticalities 2 - red, 3 - yellow, 4 - green). Please note that FMECA criticality 1 shall require Fault Tree Analysis;

i. **Risk - Supply chain vulnerability:** This risk category represents a key difference between electronic items and Materials and Structural, Mechanical and Electrical (MaSME) items

   i. Electronic items: often becomes obsolete because of technology changes (e.g.: red, yellow, green);

   ii. MaSME items: obsolescence is usually related to a source going out of business or changing its product line (e.g.: red, yellow, green).

j. **Risk - Time to implement a resolution:** This risk category addresses how long it will take to implement a resolution to an Obsolescence issue for an item or material in comparison to the stocks that the program has on hand. If there is more than enough stock on hand and the time to implement is short, then the risk to the program would be viewed as lower; however, if there is a long lead time to implement a resolution and the stocks on hand are not sufficient, then this indicates high risk. (e.g.: red, yellow, green);

k. **Risk category rationale/evidences:** Narrative for each risk category rank;

l. **Risk Level:** product of the above risk ranks;

m. **Proposed mitigation:** FFF alternative (ECP type 1), Function alternative (ECP type 2), Redesign of higher level, To Be Defined, Not Applicable, Other;

n. **Proposed mitigation rationale:** Narrative for the proposed mitigation.

4.7 SUPPLY, SUPPORT & PROVISIONING

IPS-44 The Contractor shall ensure a minimum stock of the most critical spare parts (those failing the most, or with a higher impact on the facilities) necessary for emergency and urgent repairs tasks up to the end of warranty.

IPS-45 The Contractor shall provide, as part of the bid, the budget quotation for the spares parts (LRUs, Insurance Items), technical and non-technical consumables to be

provided four (4) working weeks before the PSA in accordance with the requirements outlined below.

IPS-46 The Contractor shall provide **Initial Provisioning List (IPL)** that shall detail the rationale and calculations, for determining the range and quantity of items (i.e., spares and repair parts, consumables, special tools, test equipment, and support equipment) and the associated lists required to support and maintain the system for an initial period of service as per the following:

a. **Critical Items** using MTBCF, relevant Candidate Item List, 98% confidence level (non stock-out probability) of being able to replace any mission critical Maintenance Significant Item (MSI).

i. List #1 per relevant site: 60-day Closed-Door-Operation (CDO) in 24/7 continuous operation;

ii. List #2 per relevant site: 1-year logistic horizon in 24/7/365 continuous operation.

b. **Critical and Non-Critical Items** using MTBF,relevant Candidate Item List, 70% confidence level (non stock-out probability) of being able to replace any Maintenance Significant Item (MSI).

i. List #3 per relevant site: 1-year logistic horizon in 24/7/365 continuous operation;

ii. List #4 cumulative (one for all sites): 1-year logistic horizon in 24/7/365 continuous operation.

IPS-47 The Contractor shall detail the technical approach and tools to be used for providing the IPL in the IPSP as per the NCIA Instructions: [AI 16.31.10] – Spare parts provisioning.

IPS-48 The Contractor shall provide a fully detailed and priced **Recommended Spare Parts List (RSPL)** as annex to each issue of the IPL that shall detail all spares in a hierarchical breakdown including as a minimum the information of the table below for MDS.

IPS-49 The Contractor shall provide a fully detailed and priced **Recommended Consumable Items List (RCIL)** as annex to each issue of the IPL that shall detail all consumables including as a minimum the information of the table below for MDS.

IPS-50 The Contractor shall provide a fully detailed and priced **Recommended Tools and Test Equipment List (RTTL)** as annex to each issue of the IPL that shall detail all standard and special-to-type tools, test equipment and test fixtures, cables, connectors, support equipment (e.g. cranes, lifting platforms, etc.) including as a minimum the information of the table below for MDS.

IPS-51 The Contractor shall organize a dedicated meeting (**Provisioning Conference**) to analyse the results of spare parts dimentioning and to agree on the final IPL that shall constitute the list of the initial spares and items to be provided for supply support.

IPS-52 The Contractor shall provide the **Bill of Materiel (BoM)** as annex to each issue of the IPL for all the system according to the Product Baseline (PBL).

IPS-53 The Contractor shall provide, as per Table 15, the full and complete Inventory/**Material Data Sheet (MDS)** of all items and documents to be delivered under this contract at least ten (10) working days before shipment. It shall contain the following information:

Table 4-10 Inventory/Material Data Sheet information

Field	Description
CLIN	Contract Line Item Number (number-10 digits maximum). Sequence number assigned to a particular line item in a given contract. The combination CLIN-Contract No. shall always be unique.
Nomenclature	Short Item Description (text- 35 digits). Should always start with the main item name followed if possible by a technical specification, followed by the next higher assembly names in hierarchical order, separated by commas. E.g. for a coax connector of a television cable the nomenclature should read: CONNECTOR, COAX, CABLE, TELEVISION.
EQRE (XB/ND)	Code (text-2 digits). Defines whether an item is repairable (ND) or not (XB) from a technical point of view.
True Manufacturer Part Number	True Manufacturer P/N (text-32 digits). Part Number given to this item by the original manufacturer.
True Manufacturer Code (or complete name and address)	True Manufacturer Code (text-5 digits). Code of the Company that has manufactured this item. This is an internationally recogn ised 5-digit code which is unique to that company. It corresponds to the "cage code" in the USA. Manufacturer Codes and Cage Codes are obtainable from the national governmental authorities or, if it already exists, from the "NATO Master Cross-Reference List" (NMCRL) obtainable from NSPA. In case the code cannot be obtained, it will be sufficient to enter the complete name and address information of the true manufacturer.
Vendor/Contractor Code (or complete name and address)	Vendor (Contractor) (text-5 digits). Company which sells the item or the complete system to which this item belongs. The vendor is the company with which the contract is placed but is not necessarily the true manufacturer of the item. If the vendor company has also designed and integrated the complete system it is also known as Original Equipment Manufacturer (OEM). The company code is an internationally recogn ised 5-digit code which is unique to that company. It corresponds to the "cage code" in the USA. Manufacturer Codes and Cage Codes are obtainable from the national governmental authorities or, if it already exists, from the "NATO Master Cross-Reference List" (NMCRL) obtainable from NSPA. In case the code cannot be obtained, it will be sufficient to enter the complete name and address information.
Vendor/Contractor Part Number	Vendor (Contractor) P/N (text-32 digits). Part Number given to this item by the company which sells the item or the complete system to which this item belongs. The vendor is the company with which the contract is placed but is not necessarily the true manufacturer of the item.
QTY ordered	Item Quantity (number-5 digits). Shows the quantity of this item ordered as individual item in this contract, i.e. if it is not delivered built-in in another unit. In case the item is not ordered as individual item or as spare unit but is built-in in another assembly, enter "0" (zero) in this field and complete fields: "Part Number of next higher assembly" and "qty in next higher assembly". Serialised items shall only have a quantity of 1.
Order Unit	Order Unit (text-2 digits). Unit under which the item is sold, e.g. each, set, meter, etc.
Serial ised Item Tag	Serial ised Items Tag (text-1 digit). Add a "Y" if the item carries a serial number independently whether serial numbers is already known or not. If known, complete column "Serial Number".
Serial Number	Serial Number. If Serial ised Item Tag is "Y" (yes) then add serial number here. (1 serial number per line). If system is already installed, then the Contractor shall indicate here the serial numbers installed at user site. For items to be delivered to depots the Contractor may not know the serial number in advance, in that case it will be completed by the receiving site.
Serial Number Software Revision Level	Software Revision Level (text- 30 digits but can be expanded as necessary) If item carries a serial number and field "serial number" is completed, add SW revision level / version here if appropriate.
Serial Number Hardware Revision Level	Hardware Revision Level (text- 30 digits but can be expanded as necessary) If item carries a serial number and field "serial number" is completed, add HW revision level / version here if appropriate.
Other Serial Number attributes	Other Serial Number Attributes (text-to be defined). This field will be used and defined on a case by case basis to be decided by NCIA System Manager, NCIA and the Contractor for other attributes which might be required for a particular system.
Subject to Property Accounting	NDSS-MRCS (text-1 digit). NCIA will decide whether or not item is subject to property accounting and is to appear on the customer balance lists. This field will be completed Y or N by NCIA.
Currency	Currency (text-3 digits). International 3-digit code (ISO) representing the currency in which the item purchase price (or the estimated value) is expressed.
Price	Item Price (number-11 digits). Unit price with 2 decimals.

Field	Description
Warranty Expiration Date	Warranty Expiration Date (date: DD/MM/YY). Shows the date on which the warranty of this item expires, which is usually N days after delivery of the item. If delivery is scheduled for a certain date, warranty expiration date = delivery date + warranty period in days.
Receiving / Inspection Depot	Receiving / Inspection Depot (TXT-2 digits). Information will be provided to Contractor by the Purchaser's ILS Officer. This is the depot to where the vendor ships the material. Normally this depot will receive, inspect and put the material in stock against Dues-In to be created in accordance with Qty in column "Qty Ordered". In case of a deviation from this rule, the Purchaser will inform the Contractor of the correct final Depot and through which depot the items shall have to transit.
Issue to customer	Customer Code (text-4 digits - to be completed by NCIA). Code representing the customer to which the item(s) shall be shipped by the receiving/ inspecting depot.
Extended Line Item Description	Extended Line Item Description (text-no limit). Any additional information concerning this item shall be entered here, e.g. technical specifications, configuration, reference to technical drawings or manuals etc.…
Part Number of next higher assembly	Part-Number of Next Higher Assembly (text-32 digits) If item is built-in another assembly, indicate part number of that assembly here.
Qty in next higher assembly	Quantity in Next Higher Assembly (number-3 digits max). This field shows the built-in quantity of the item in the next higher assembly. This information shall be provided for configuration control purposes.
Qty installed at Operating Unit (Customer Site)	Quantity installed. This field is only applicable when the delivery is direct to an operating unit (customer site). However in that case it is mandatory. For non-serial ised items it shows total quantity installed. For serial ised items quantity shall only be one per serial number. Use a new line for each serial number.

IPS-54 The Contractor shall provide a detailed **Software Distribution List (SWDL)** as annex to each issue of the IPL, which shall detail comprehensively all Computer Software Configuration Items (CSCI) and associated software, firmware or feature/performance licenses provided under this Contract. The SWDL shall include, the following data elements:

a. CSCI identification number;

b. nomenclature;

c. version number;

d. license key (if applicable);

e. license renewal date (if applicable);

f. warranty expiration date;

g. date of distribution;

h. distribution location (geographically);

i. distribution target (server); and

j. Owner.

IPS-55 The Contractor shall make sure that all licenses are originally registered with the Customer as end-user.

4.8 PACKAGING, HANDLING, STORAGE & TRANSPORTATION

IPS-56 The Contractor shall provide a Packaging, Handling, Storage and Transportation (PHST) Report down to the hardware LRU.

IPS-57 The Contractor shall provide the PHST Report that summarises how the following relevant requirements are fulfilled, needs for special packaging, dimensions of the items and facilities required for storage.

4.8.1 PACKING, CODING AND PACKAGE LABELLING (PACKAGING)

IPS-58 The Contractor shall provide all supplies packaged to withstand the shipping hazards applicable to the chosen mode of transportation.

IPS-59 The Contractor shall provide any Special To Type (non-commercial) packaging materials required for the shipment of items at no extra cost to the Purchaser.

IPS-60 The Contractor shall package, crate or otherwise prepare items in accordance with best commercial practices considering the destination and the mode of transportation. Any Special To Type (non-commercial) packaging will be retained by the Purchaser for return of the items under Warranty if necessary.

IPS-61 The Contractor shall mark the packages, palettes and/or containers in which supplies are transported shall, in addition to normal mercantile marking, showing on a separate nameplate the name of this project, contract number and shipping address and clearly marked with the text “NATO PROPERTY”.

IPS-62 The Contractor shall provide a **Packing List** for each consignment to allow for easy identification of the content of each package:

a. One Packing List shall be affixed to the exterior of the consignment in a sealed, weatherproof envelope on the outside of each box, palette and/ or container

b. A second copy shall be put inside each container/box.

c. A third copy should be emailed to the Purchaser PoC upon departure of the goods.

IPS-63 The Packing List shall contain the following information.

Table 4-11 Packing List

Serial	Requirement
1	The shipping Address
2	Package number of number of packages
3	Contract Number
4	CLIN Number as per Schedule of Supply and Services
5	Item Description
6	Part Number
7	Serial Number
8	Quantity
9	Weight and Volume details
10	Box number and number of boxes in the consignment
11	Name and address of the Contractor, Purchaser and Consignor
12	Values of the goods

IPS-64 The Contractor shall provide the details of the labelling approach in the CM Plan for Purchaser approval. The Contractor shall provide its labelling for the items that are configured and/or modified after procurement from the OEM. For these items, the Contractor shall provide for review and approval before the start of the labelling activities, the format and content of the labelling.

IPS-65 The Contractor shall deliver all the equipment labels including a machine-readable code (e.g. barcode) compliant with:

a. STANAG 4280 - NATO Levels of Packaging;

b. STANAG 2828 - Military pallets, packages and containers;

c. STANAG 4281 - NATO Standard Marking for Shipment and Storage;

d. STANAG 4329 - NATO Standard Bar Code Symbologies – AAP-44(A); and

e. AAP-44(A) - NATO Standard Bar Code Handbook.

IPS-66 The Contractor shall provide adequate identification for the Non-CIS components as well as the CIS components. This shall entail the labelling for the transit and transport cases, marking of the tents, nameplates on the containers etc

4.8.2 DELIVERY AND SHIPMENT (HANDLING AND STORAGE)

IPS-67 The shipping address where all items, including goods exchanged or repaired under warranty, shall be delivered by default is:

Unidade de Apoio Geral de Material do Exercito (UAGME)

Estrada do Infantado

2890-403 Benavente

Portugal

[128] The Purchaser Point of Contact (PoC) for issues related to shipment by default is:

Name Surname (Project Manager)

NATO Communication and Information Agency,

Code, City, Nation

Tel: XXX

name.surname@ncia.nato.int

[129] The Purchaser's PoC and/or PoC of the Customer will inspect all packages, boxes and containers at final destination to ensure that no damage has occurred during transport and that all packages, boxes and containers detailed in the Packing List have been accounted for. The Purchaser will not open any packages, boxes or containers.

[130] The system may be deployed at locations where theres are no roads or other areas which are not easily accessable. Thererfore there will be no forklift trucks or other lifting equipment to handle the transit cases. In such circumstances material handling equipment is needed to dismount the equipement from the vans and to take them to the end locations where they will be set up.

IPS-68 The request for a Custom Form 302 shall be addressed to:

Name Surname (Project Manager)

NATO Communication and Information Agency,

Code, City, Nation

Tel: XXX

name.surname@ncia.nato.int

[131] Following receipt of the request by the Purchaser, normally a maximum of three working days are required for the issue of the form.

[132] Load planning is a critical exercise to ensure the equipment can be dis-assembled, packaged, loaded, transported and re-assembled at the end location with minimal damage and minimal effort.

IPS-69 The Contractor shall deliver all equipment under this project in close coordination with the NCI Agency PoC at final destination.

IPS-70 The Contractor shall deliver equipment pre-configured and adequately packaged on Euro pallets.

IPS-71 The Contractor shall ensure secure fixation of pallets, cases and equipment during transportation.

IPS-72 The Contractor shall notify all deliveries through issuing of a **Notice of Shipment** to the Purchaser's PoC, at least 10 working days in advance of each shipment with the information seen in Table 4-12.

Table 4-12 Notice of Shipment

Serial	Requirement
1	Purchaser Contract Number
2	Contract line Item Number (CLIN), designation and quantities
3	Destination
4	Number and gross weight
5	Consignor's and Consignee's name and address
6	Method of shipment, e.g., road, air sea, etc.
7	Date of shipment
8	Number of the Custom Form 302 used

IPS-73 The Notice of Shipment shall be accompanied by the relevant Packing List and the request for a Custom Form 302.

IPS-74 The Contractor shall take back and replace any damaged items, and correct any discrepancies with the packing and inventory lists, at no additional cost to the Purchaser and, or the Customer, without delay to the project.

IPS-75 The Contractor shall be responsible for the availability of proper storage space and availability of Material handling equipment that may be required for the equipment shipped to the destination/location. The Purchaser cannot be held responsible for any delays in implementation in the case of unavailability of facilities or materials, and the Contractor shall be solely responsible to acquire alternative facilities/material to assure proper storage, handling etc.

IPS-76 The Contractor shall ensure that all required forms and certificates are provided and that all necessary procedures are followed for dangerous goods and goods requiring export licenses.

IPS-77 The Contractor shall record all deliveries of equipment in the NCI Agency ITSM (IT Service Management) ticket system (for tracking by the Operations Centre).

IPS-78 The Contractor shall make sure that all licenses are originally registered with the Customer as end-user.

IPS-79 The Contractor shall provide material handling equipment that shall allow the transport of the system over rough terrain. This is especially important for the heavy transit cases.

IPS-80 The Contractor shall provide a **Load Plan** as annex of the PHST Report that shall take into account:

a. The mission function (modules needed);

b. The means of transport;

c. Location of deployment (Building of Opportunity, Field deployment, etc.)

IPS-81 The Load Plan shall identify:

a. The distribution of the load along the different loading platforms (containers, vans, etc.) and the internal distribution in each of those platforms taking into account weight distribution (for centre of gravity considerations);

b. The required order of use during deployment by providing 3D models (format such as .stp that is acceptable and usable in Purchaser 3D modelling tools) that entail a full scope detailed load plan starting from the rough models of the equipment with detailed modelling of transit cases, Non-CIS material in the packed form and palletization;

c. What needs to be loaded in terms of the number and dimensions of transit cases and other equipment, including all relevant the CIS and non-CIS;

d. The load order to optimise weight loading, space utilization, and minimal damage; and

e. The need for Load Plan Tool if standard loading tools will be not appropriate.

IPS-82 The Contractor shall be responsible for customs clearance of all shipments into the destination countries. It is the Contractor's responsibility to take into account delays at customs. The Contractor shall therefore consider eventual delays and arrange for shipment in time. Under no circumstances can the Purchaser be held responsible for delays incurred, even when utilising Purchaser provided Custom Forms 302.

IPS-83 The Contractor shall ensure that any requirements related to delivery and shipment of the equipment are obtained from NCI Agency in advance of shipments.

IPS-84 The Contractor shall be responsible for the timely request of Custom Forms 302 at least 10 working days in advance of each shipment, required for duty free import/export of supplies between certain countries.

IPS-85 The written request for a Custom Form 302 shall contain the following information:

Table 4-13 Information for Custom Form 302

Serial	Requirement
1	Purchaser Contract Number
2	Contract line Item Number (CLIN), designation and quantities
3	Destination
4	Number and gross weight
5	Consignor's and Consignee's name and address
6	Method of shipment, e.g., road, air sea, etc.
7	Name and address of the freight forwarder

IPS-86 The Custom Forms 302 shall be original, shall be delivered by mail/express courier and shall accompany the shipment and therefore no fax or electronic copy will be used, nor provided to the Contractor. If an express courier has to be used, by the Purchaser, to ensure that the form is available on time before shipment, all associated costs shall be reimbursed by the Contractor.

IPS-87 The Contractor shall be responsible to add the Custom Form 302 to the shipping documentation to include on the outside document envelope the contract number and the Purchaser PoC to contact upon reception.

IPS-88 The Contractor shall ensure that forwarding agents are informed of the availability of the Custom Form 302 and how this form is utilised to avoid the payment of Customs Duties and that the carrier shall be fully conversant with the application and use of Custom Form 302.

IPS-89 In case of a Country refuses to accept the Custom Form 302 and requires the payment of custom duties, the Contractor shall immediately inform the Purchaser by the fastest means available and obtain from the Custom Officer a written statement establishing that its country refuses to accept the Custom Form 302. Only after having received Purchaser's approval, the Contractor shall pay these customs duties and shall claim reimbursement to the Purchaser.

4.8.3 TRANSPORTATION

[133] The Purchaser shall not be liable for any storage, damage or any other charges involved in such transportation of items and supplies prior to Acceptance. Any shipment loss shall be the responsibility of the Contractor.

IPS-90 The Contractor shall be responsible to transport all items and supplies covered under this Contract to and from all destination addresses at no extra cost to the Purchaser and, or Customer until completion of the warranty period.

IPS-91 The Contractor shall be responsible for transportation of unserviceable equipment to Contractor facility for warranty repair/replacement.

IPS-92 The Contractor shall be responsible for transportation of all equipment furnished under this Contract from its site in a NATO nation to final destination.

IPS-93 The Contractor shall be responsible for any insurance covering the shipment and delivery.

IPS-94 The Contractor shall be responsible for transportation of repaired/ replacement items under warranty to the original location.

IPS-95 The equipment shall be transportable in:

a. ISO containers for aircraft cargo and trucks;

b. Transit cases on pallets for vans; and

c. HCU 463L Air Cargo Pallets (HCU-6/E) for aircraft cargo.

IPS-96 The Contractor shall provide a **Transportation Report** (template to be provided as annex of the PHST Report) within two (2) weeks after each shipment has arrived at final destination. The Transportation Report shall include:

a. A copy of the Packing List;

b. Date of arrival at final destination;

c. Date of delivery acceptance by the Purchaser's PoC at final destination;

d. Signature of delivery acceptance by the Purchaser's PoC at final destination.

4.9 TECHNICAL PUBLICATIONS

IPS-97 The Contractor shall detail their approach and plans for Technical Publications in the IPSP, these plans are to be fully compliant with:

a. [AI 16.31.07] – Guidance Document (GD) for ASD-AIA-ATA S1000D Technical Publications, with the associated S1000D Issue 4.0.1 Business Rules Decision Points (BRDP) Index.

b. [AI 16.31.12] – Writing Style Guide (WSG) for ASD/AIA/ATA S1000D Technical publications; and

c. [AI 16.31.13] – Illustration Style Guide (ISG) for ASD/AIA/ATA S1000D Technical publications.

IPS-98 The Contractor shall provide **Operation Manuals (OM)** [including Deployment Instructions that shall include the Loading Plan results and System Administrator Guide (SAG)] and **Maintenance Manuals (MM)**. These manuals shall constitute the system technical publications in form of a **Common Source Data Base (CSDB)**, shall compliment each other with no conflicting information and shall include relevant information and instructions for all Contractor delivered Product (HW and FW/SW including COTS, Contractor customized items, modified items and fully developed items). The modularity of the system technical publications shall allow proper allocation for PFPs in an homogeneous breakdown structure.

IPS-99 The Contractor shall provide Operation Manuals and Maintenance Manuals as per requirements of personnel operating and maintaining the equipment in accordance with the Maintenance Concept and the outcomes of Maintenance Task Analysis:

a. Operation Manuals: is for the operation of the equipment and describes operation, settings and fine tuning of the equipment to achieve maximum performance including administration instructions (e.g.: guidance on how to show, edit and save the System Configuration Files on the respective devices, together with default user or administrator passwords, as required).

b. Maintenance Manuals: is for the maintenance of the equipment and includes:

   i. Scheduled and Unscheduled Maintenance detailed instructions, Troubleshooting and fault finding techniques (including descriptions of all indicators, switches, switch positions, displays, menu's, settings etc), Installation and dismantling of the equipment (including as applicable physical, electrical, software, safety, RF aspects etc.), repair and test procedures for HL3/SL3 activities;

   ii. Drawings of the mechanical, electrical and electronic assemblies and sub-assemblies that comprise the equipment in sufficient detail to allow technical staff to maintain the system at site level in accordance with the Maintenance Concept;

   iii. As-built drawings (ABDs) for full details of how all of the major assemblies of the supplied equipment have been physically installed and mechanically/electrically integrated (e.g.: drawings of intra-rack and inter-rack cabling); and

   iv. Detailed and lower level repair and maintenance of subassemblies and components shall be addressed by the Original Equipment Manufacturer's (OEM) manuals unless it has been agreed that specific activities are NMT.

c. Physical, functional, performance, environmental data and descriptions (including support equipment/tools and interfaces to external systems).

IPS-100 The Contractor shall provide **Original Equipment Manufacturer (OEM) Technical Manuals** for all the items from other manufacturers/vendors used into the system, equipment and test equipment assuring that they:

a. Cover at least: Functional descriptions; Performance descriptions; Detailed specifications; Interfaces to external systems; Descriptions of all indicators, switches, switch positions, and displays; Installation instructions; Operating instructions; Corrective and preventive maintenance instructions; Fault isolation and fault finding techniques; Support equipment/tools description;

b. Provide detailed information necessary to disassemble and assemble the units down to the lowest Line Replaceable Unit (LRU) level of maintenance;

c. Provide the necessary drawings/schematics, specifications, wiring diagrams, etc., to allow the operators to troubleshoot, and fully understand, the design and operation of the particular equipment;

d. Supplement but do not substitute Operation Manuals and/or Maintenance Manuals and thus be expected to be referenced in the latter as a way of providing specific details on a particular piece of equipment; and

e. Are amended by preparation of supplemental data to make them fully acceptable for Purchaser use.

IPS-101 For any developed software under this Contract the Contractor shall provide Software Build Instructions providing all information how to compile and build the Software. The instructions shall include but are not limited to:

1) The system modules, services and components;

2) The interfaces;

3) The file structure and files;

4) How building the software, including: descriptions of project and system directory structures/ specification of the build environment/settings and configuration files.

4.9.1.1 SYSTEMS ADMINISTRATOR GUIDE (SAG)

IPS-102 The Operation Manual shall include Systems Administrator Guide (SAG) to cover at least the following topics:

1) Rebuild a CIS Node Shelter and Trailer from a factory node state into an operational mission state;

2) Facilitate the Sys Admin and Users to bounce-back from a Disaster Recovery powered-down situation;

3) Access all relevant information regarding a deployment configuration, and administration of TDCIS;

4) Have a detailed understanding of the system:

5) All the tasks and activities that Staff will need to undertake;

6) Determine the CIS Build Configuration;

7) Determine any software, or active network infrastructure component configuration that needs to be undertaken;

8) Understand any CIS Build Configurations and Instructions in compilation, build and deployment, to include:
   a. System modules, services and components involved;
   b. Any interfaces employed and how;
   c. File structure and files;
   d. How software/configuration is built, including:
   e. Descriptions of project and system directory structures;
   f. Specification of the build environment/settings;
   g. Configuration files.
9) Easily identify Build and Assembly Instructions covering all the tasks required for each node type to be installed and configured, rerolled, and uninstalled from the system, to include:
   a. Configuration instructions as necessary, for each active system component used within each system node type. Every instruction shall be supported by textual or graphical illustration of the system's response to that instruction;
   b. Component, module, service and, or system restoration instructions to be used following a power outage or system/node rebuild, for each active elements within every system node type. Each instruction shall be supported by textual and, or graphical illustration of the system's response to that instruction;
   c. Provide detailed installation/uninstallation procedures for all services employed by the system, allowing system administrators to rebuild services from scratch;
   d. Describe at least prerequisites for installing/uninstalling the system;
   e. Detail procedures for the backup and recovery of every configuration file employed by the system's components, modules and services;
   f. Detail configuration settings for all services, modules and components employed by the system, that are to be configured and, or reconfigured upon a system build or rebuild;
   g. List how necessary modules and components are to be configured to enable the full and proper logging of system events to analyse system performance, utilisation and support system Cyber Defence activities;
   h. Explain where log files outlined above are stored and how they can be recovered for exporting from the system;
   i. Detail the usage of all third-party applications needed to configure, manage and maintain the system;
   j. Include troubleshooting information providing a break-down of actions to solve a wide range of (potential) problems and, or provide workarounds to problems indentified.
10) Understand with depth step-by-step procedures, as an Administrators Operating Manual (AOM) on how to operate the system associated with that element, addressing all hardware and software items comprising the system, in addition:
   a. Listing and describing all roles, operation tasks, and tools needed to operate the system from the associated element;
   b. Using functional blocks, descriptions and appropriate drawings, the AOM shall

describe the system elements and their Configuration Items (CI) within the respective mechanical, electrical, and electronic assemblies and sub-assemblies.

IPS-103 The AOM as a part of the SAG shall:

1) Take maximum advantage of the existing COTS Original Equipment Manufacturer (OEM) manuals and documentation, supplemented with adaptations, and additions relevant to the products furnished under this contract;
2) Provide documentation dealing with the instructions and procedures for operators to handle, manage and support the system;
3) Describe in detail all hardware and software items that comprise the system;
4) Describe in detail the operational performance and the means of control for the operators;
5) Be a system level document and shall describe the complete system by the explanation of functional blocks and Configuration Items;
6) Provide information to interpret (computer aided-) diagnostics and measurements;
7) Describe in detail all software features, menus, and supporting graphics.

IPS-104 The Contractor shall provide a Role Based Access Control (RBAC) matrix as a part of the SAG. This crucial part of the authentication process should be an easy to refer to, and an automated function within the TDCIS to allow the system administrator to allocate TDCIS privileges and access.

4.9.1.2 DEPLOYMENT MANUAL

IPS-105 ~~The Contractor shall provide a Deployment Manual for each node covering the specific needs for each node type.~~ The Operation Manual shall include Deloyment Guide for each node covering the specific needs for each node type.

IPS-106 The Contractor shall provide the deployment scenario during CDR with the number of personnel, skill sets and task durations. The Contractor shall make necessary adjustments and improvements to the scenario based on Purchaser review and suggestions. Unless otherwise specified by the Purchaser, the deployment scenario and plan shall be created with following constraints:

1) Maximum time to deploy each node shall not exceed 8 hours with maximum 6 people simultaneously. This deployment shall be understood as unloading, unpacking, installation, testing and configuring to a mission ready state.
2) The Contractor shall also propose a deployment scenario and a load plan where MS or NS domain is prioritized and maximum time to deploy this systems shall not exceed 2 hours with maximum 6 people including the corresponding critical Non-CIS infrastructure.
3) Starting from a possible operational state, deployment preparation activities shall not exceed 24 hours with maximum 6 people simultaneously. Therefore the high level activities within this scope shall be read as data back-up, mission configuration, mission preparation tests, power-off, spare selection and configuration, packing and loading.

IPS-107 The Contractor shall provide each task clearly indicating the steps, duration, number of personnel and their skilled levels to successfully complete the deployment.

IPS-108 The Deployment Guide ~~Manual~~ shall at least include the following: Preparation for the deployment:

1) Preparing the deployment set based on the mission/exercise configuration (HW and SW configuration and functional check of the modules to be deployed);
2) Container loading plan based on the mission priority (packing, stacking and loading to the containers):

a. Deployment:
b. Container unloading and unpacking;
c. Set-up, installation and connections;
d. Power-up;
e. Configuration and settings;
f. Functional check.
g. Operation (referring to the manuals);
h. End of Deployment:
i. Functional tasks (Configuration and data back-up etc.);
j. Controlled shut down;
k. Disconnecting and dismantling;
l. Container loading plan (packing, stacking and loading to the containers).
m. Post-deployment:
n. Post-deployment checks;
o. Back-up configuration and mission data;
p. Node-state configuration;
q. HW storage conditions.

IPS-109 The Contractor shall ensure maturity of the MMs during the system's warranty period.

IPS-110 The Contractor shall ensure that, for the purposes of Disaster Recovery (DR), Deployment, Switching between Mission states and Maintenance, the SAG, UOM and the MMs are suited for use within each of the Nodes; and should be specifically tailored for each of the Nodes

IPS-111 The Contractor shall provide the SAGs, UOM and MMs in a configured and ease of use format:

1) Hard copies;
2) Soft copies;

IPS-112 All above shall be delivered as a configured set of documents and present within each of the Nodes; and to be specifically tailored for each of the Nodes.

4.10 TRAINING

TRN-1 The development of training materials and courses (and manuals) shall be based on the outcomes of maintenance task analysis, as well as the TNA, and hence cover the right operation and maintenance tasks.

TRN-2 The Contractor shall distinguish separate roles for the distinct operation and maintenance functions of the system. Training shall be provided in a highly modular fashion to ensure that the right mix of modules can be assembled into role-based courses that cover the various operation and maintenance roles within the Purchaser / Customer support organization.

[134] The Purchaser will provide a serviced training facility, in coordination with the customer, in which the Contractor is to provide necessary equipment to deliver planned training.

TRN-3 The Contractor shall detail approach and plans for Training in a relevant chapter into the IPSP. Updates shall be managed in a separate ad hoc document named **Training Plan (TP)** that shall include the **Training Needs Analysis (TNA)**. Training shall be through the most effective training option identified by the TNA. Options shall include: bespoke Contractor courses, commercial training courses, or a mix of bespoke and commercial courses. Courses shall be organised as self-study courses through the use of Computer Based Training (CBT), instructor-led classroom training, On-The-Job practical training (OTJ), or a combination thereof. The selected methods and their combination weight shall be proposed in the Training Plan for Purchaser approval.

TRN-4 The Contractor shall develop the training materials and courses on the outcomes of Maintenance Task Analysis as well as the TNA.

TRN-5 The Contractor shall be fully responsible for planning, organizing, installing, operating and maintaining all that is required to perform the training. This includes any training equipment used in the classroom.

TRN-6 The Contractor shall assume that trainees and audience will have proficiency in the English language, knowledge of the Microsoft Windows Operating System and the audience shall be tailored for a maximum twelve (12) students plus maximum four (4) auditors.

TRN-7 The Contractor shall provide Training and all related training documentation in the English language. Training shall be able to accommodate Purchaser students with an English language skill level of 2222 (STANAG 6001). Contractor trainers shall have English language skill level 3332.

TRN-8 The Contractor shall provide evidence of the trainer, or a Subject Matter Expert (SME) supporting the trainer, qualifications and in particular to have at least two years practical experience with the installation and operation of the items under training.

TRN-9 The Contractor shall provide Training on all CIS and Non-CIS components, CIS ancillaries and firmware/software (excluded on PFE). However, training shall cover the system specific interfaces to any external systems (e.g. external power system), PFE.

4.10.1 TRAINING NEEDS ANALYSIS (TNA)

TRN-10 The Contractor shall develop for Purchaser acceptance, a Training Needs Analysis (TNA) with an appropriate Media Analysis. The Training Needs Analysis (TNA) shall be produced in accordance with the Bi-SC Directive 075-007, and include:

1) Operational Tasking Inventory (OTI);
2) Site Surveys;
3) Training Product Breakdown;
4) Courseware Deliverables;

TRN-11 The Contractors trainers shall have English language skill level 3332;

TRN-12 The Contractor shall assume that Trainees and audience will have:

1) Proficiency in the English language;
2) Knowledge of the Microsoft Windows Operating System.

TRN-13 The Contractor shall develop as part of their TNA and TP:

1) A Target Audience Analysis. The Target Audience Analysis shall identify user and support categories, including end users, support staff (to perform Levels 1, 2 or 3) and Purchaser instructor personnel (for follow-on training);
2) A Performance Gap Analysis. The Performance Gap Analysis shall assess the gap between the current skills of users, support staff or Instructor and the tasks they will be expected to perform in the use and support of the Operational Baseline;
3) A Difficulty, Importance and Frequency (DIF) Analysis. The Difficulty, Importance and Frequency (DIF) Analysis shall identify the difficulty and importance of each major task to be performed by each category of users, support staff or Instructor and the frequency with which the task will be performed;
4) A Training Options Analysis.

TRN-14 For each task identified, the Contractor shall assess the knowledge and skill required to perform the task, determine performance objectives, and recommend how training should be provided to meet these requirements.

TRN-15 The TNA shall identify which operation and maintenance tasks are required to operate and maintain the system at Level 1 / 2 / 3 of support. These tasks shall be documented in the Operation and Maintenance Manual, and listed in the TNA Report.

TRN-16 Training delivery shall be through the most effective training option identified by the TNA. Options shall include: bespoke Contractor courses, commercial training courses, or a mix of bespoke and commercial courses. Courses shall be organised as self-study courses through the use of Computer Based Training (CBT), instructor-led classroom training and On-The-Job practical training (OTJ). The selected

methods and their combination weight shall be proposed in the Training Plan for Purchaser approval.

TRN-17 The TNA shall also identify the course pre-requisites for all training courses. The pre-requisite training shall be described in such a way as to allow Host Nation to select students and organise Host Nation pre-requisite training, in time, before execution of the Contractor's training programme commences.

TRN-18 The results of the TNA shall be captured in a TNA report. The TNA report shall capture the results of the TNA. The structuring of training modules, role-based training programmes, and training material, as well as the training sequence, mode and duration shall be based on the outcomes of the TNA

TRN-19 The Contractor shall provide the TNA detailing the relevant content to cover the following structure and the Bi-SC Directive 075-007.

Table 4-14 TNA Content and Structure

Structure	Content
1	Introduction
2	Documents and Acronyms
2.1	List of Applicable Documents
2.2	List of Reference Documents
2.3	List of Acronyms
3	Analysis
4.1	Target Audience[10]
4.2	Performance Gap[11]
4.3	Difficulty, Importance and Frequency (DIF)[12]
4.4	Training Options
5	Results[13]

4.10.2 TRAINING PLAN

TRN-20 The Contractor shall provide a Training Plan that explains in detail how the Contractor shall fulfil all training requirements in this Contract. The Training Plan and supporting PMS shall include the following for each course:

1) Description of the Contractor training organisation;

[10] Target Audience Analysis: identification of user and support categories, including end users, support staff (to perform Levels 1, 2 or 3) and Purchaser instructor personnel (for follow-on training).

[11] Performance Gap Analysis: identification of the gap between the current skills of users, support staff or Instructor and the tasks they will be expected to perform in the use and support; identification of the course pre-requisites for all training courses to allow Host Nation to select students and organize Host Nation pre-requisite training, in time, before execution of the Contractor's training.

[12] Difficulty, Importance and Frequency (DIF): identification of the difficulty and importance of each major task to be performed by each category of users, support staff or Instructor and the frequency with which the task will be performed assessing the knowledge and skill required to perform the task, determining performance objectives, and recommending how training should be provided to meet these requirements.

[13] Structuring of training modules, role-based training programmes, and training material, as well as the training sequence, mode and duration.

2) Planning of the training stages and activities, including the TNA, development of training material and corresponding schedule for each training course material, organisation of courses, course execution, learning methods for each type of course;

3) Course description. This shall be a clear description of:

a. A narrative explanation of the subject matter of the specific course;

b. The course format, objectives, and training materials, described in sufficient detail to ensure the students will receive required training;

c. A proposed syllabus detailing the subject matter to be covered.

4) Any breakdown into modules shall be described, following the format of Course Control Documents (CCD) I, II, and III as of Bi-SC Directive 075-007.

5) Student prerequisites (if required);

6) Course length (including time devoted to each area of the course);

7) Method of presentation for each element of the syllabus (show breakdown of methods, i.e., lecture, demonstration, hands-on and directed study, online etc.);

8) Method of evaluation. Establish minimum acceptable written and performance standards and a method of evaluation of directed study. A plan shall be included to show that each student achieved at least minimum training objectives by written and performance tests;

9) List of training material, by Product Breakdown and training equipment required (Contractor-provided documents or materials shall be included). This shall include the appropriate standards for electronic data;

10) Description of the training equipment to be used including the functionality in terms of the operational and maintenance tasks;

11) Recommended maximum s ise of course. Recommended location of training and type of facility required (i.e., classroom, auditorium, site, etc.);

12) List of measurable objectives (tasks) required by graduates to demonstrate successful completion of course;

13) Proposed schedule for training courses;

14) Relationship to related programme milestones and to the equipment delivery schedule;

15) Number of hours of “hands-on” training to be provided to each student;

16) Training Site Survey and training system installation.

TRN-21 The Contractor’s Training Plan (TP) shall observe the Customer’s normal working routine.

TRN-22 The Contractor shall provide the TP detailing the relevant content to cover the following structure and the Bi-SC Directive 075-007.

Table 4-15 TP Content and Structure

Structure	Content
1	Introduction
2	Documents and Acronyms

Structure	Content
2.1	List of Applicable Documents
2.2	List of Reference Documents
2.3	List of Acronyms
3	Training Management
4.1	Training team
4.2	Training processes and procedure overview
4.3	Training RACI Matrix
4.4	Training tools
4.5	Learning Methods
4.6	Training constraints
5	Planning
5.1	TNA results
5.2	Training Material
5.3	Training Courses
5.4	Proposed time schedule
6	Organisation of courses
6.1	Course description[14]
6.2	Training objectives
6.3	Method of presentation
6.4	Method of evaluation
6.5	Training certificates
6.6	Feedback management

4.10.3 TRAINING MATERIAL

TRN-23 The Contractor shall provide **Training Materials** and shall execute **Training Course** for test personnel, operators, maintainers and instructors:

1) based on the maintenance and support concept (Product Support Database):
2) based on technical publications (Common Source Database),
3) containing slides used during the training, and provide a hardcopy to each student in the requested format (e.g. NATO Academy presentation / handbook formats and style guides) for review and approval.

TRN-24 The Contractor shall deliver an Instructor Manual (included in the Training Materials) to enable the instructor to prepare, conduct, and conclude the training course to meet the learning objective within the allocated training period.

TRN-25 The Contractor shall prepare and provide all materials that will be used for the training. All documentation and training material delivered shall include an electronic

[14] A proposed syllabus shall be included, detailing the subject matter to be covered. Any breakdown into modules shall be described, following the format of Course Control Documents (CCD) I, II, and III as of Bi-SC Directive 075-007. For each course there shall be also the following details:

- Student prerequisites (if required);
- Method of presentation for each element of the syllabus (show breakdown of methods, i.e., lecture, demonstration, hands-on and directed study, online etc.);
- Course length (including time devoted to each area of the course);
- Recommended maximum size of course;
- Recommended location of training and type of facility required (i.e., classroom, auditorium, site, etc.);
- List of measurable objectives (tasks) required by graduates to demonstrate successful completion of course;

editable version. The training material shall be available in a Purchaser approved version and formatting before the start of the training course(s).

TRN-26 The Contractor shall organise or develop and issue course material to ensure that each course provides all students / instructors with:

1) A student handbook;
2) Slides to support the course;
3) Instructor Manual;
4) A Training Certificate, upon completion of the course; and
5) A course evaluation feedback form.

TRN-27 Training handbooks shall include all training content required to teach and comprehend the course. This includes an introduction to the training course; training course and lesson objectives; lesson overview and instructor / learning guide; course schedule; administrative and safety instructions; quick reference cards; and exercise material.

TRN-28 All training material shall be provided to the Purchaser in the requested format (e.g. NCI Academy presentation / handbook formats and style guides) for review and approval. The review process shall be proposed in the Training Plan and organised by the Contractor in time to ensure training material is approved before start of the training programme

TRN-29 The Contractor shall be responsible for the full installation, integration and validation of all training systems at the training location.

TRN-30 The Contractor shall ensure that each student is instructed at the end of each course to complete and return the **Course Evaluation Feedback Form**.

TRN-31 The Contractor shall consolidate and forward student feedback to the Purchaser following each training course in the form of a **Training Evaluation Report**. The report shall also recommend changes and improvements to the training courses based on the consolidated student feedback. The report shall also address student attendance, problems encountered and actions taken to resolve the problems.

TRN-32 The Contractor shall revise/ refine and reissue any course material to reflect the consolidated student feedback and proposed improvements in the training evaluation report.

TRN-33 Training courses shall include final theory and practical assessment tests that shall be graded based on the NCI Academy standards. However, no pass/fail decision shall be made by the Contractor.

TRN-34 The Contractor shall produce **Training Certificates** for each training session and student. The certificates shall be issued to students at the end of each course

TRN-35 The Instructor Manual shall follow the CCD II and III format include all fields on those control documents, including but not limited to:

1) A Course Overview;

2) Course organisation;
3) Course coordination;
4) Target audience;
5) Course Goals and outcomes;
6) Class s ise;
7) Host Agency responsibilities:
8) Audio-visual equipment requirements;
9) Room requirements;
10) Local coordinator's responsibilities;
11) Training site;
12) Participants and instructors;
13) Final arrangements;
14) Student requirements.
15) Course agenda;
16) For the instructor:
    a. Presentation requirements:
    b. Before the training event – preparation and device configuration list;
    c. During the training event;
    d. After the training event, to include resetting of devices.
    e. Course evaluation templates.

4.10.4 TRAINING COURSES

TRN-36 The Contractor shall ensure the following for Training Courses:

1) All Contractor staff tasked to deliver training shall be security cleared for access to R*strict*d workplaces and data, in advance of the courses they are scheduled to deliver;
2) All training modules and courses required to enable all initially assigned the Purchaser personnel to operate and maintain the system at Level 1, 2 and 3. This shall include comprehensive and standalone hands-on training of load/unload, pack/unpack, and setup/dismantle of Nodes including a full-scale deployment scenario;
3) Sufficient hands-on, practical lessons on the actual system equipment provided through this Contract;
4) Training takes place in Portugal prior to the UAT(E). The Contractor shall be fully responsible for planning, organizing, installing, operating and maintaining all that is required to perform the training. This includes any training equipment used in the classroom;
5) Training and all related training documentation is provided in the English language. Training shall be able to accommodate Purchaser students with an English language skill level of 2222 (STANAG 6001). Contractor trainers shall have English language skill level 3332;

6) Where training is evaluated as being more suitable for On-The-Job-Training (OTJ), the Contractor shall provision the training course with OJT Type Training Activity;

7) Where training is evaluated as being more suitable for Classroom Environments, the Contractor shall provision and plan the training course with all Classroom training assets;

8) Where training is evaluated as being more suitable to be carried on on TDCIS Equipment, the Contractor shall provision and plan the training course with all Classroom training assets.

4.10.5 TRAINING EVALUATION

TRN-37 The Contractor shall ensure that each student is instructed at the end of each course to complete and return the course evaluation feedback form.

TRN-38 The Contractor shall consolidate and forward student feedback to the Purchaser following each training course in the form of a Training Evaluation Report. The report shall also recommend changes and improvements to the training courses based on the consolidated student feedback. The report shall also address student attendance, problems encountered and actions taken to resolve the problems.

TRN-39 The Contractor shall revise/ refine and reissue any course material to reflect the consolidated student feedback and proposed improvements in the training evaluation report.

4.11 IN SERVICE SUPPORT DURING WARRANTY

[135] The warranty period starts after successful completion of the FSA for each relevant batch and ends with the warranty end of each item (hardware and software) of relevant batch.

[136] The In Service Support (ISS) during Warranty begin on successful completion of FSA for each relevant batch and run for a period of **two (2) consecutive, one (1) year periods** provided that the relevant batch is free of any defect in material, code or workmanship.

[137] The Purchaser and/or Customer will operate and maintain the system after the FSA of each relevant batch

[138] The Customer will be responsible at their own expenses for return of failed items, from deployed units to Customer's Mission Preparation Centre (MPC) within the Customer's home nation, from where the Contractor will collect these items.

[139] Any support required for Purchaser Furnished Property (PFP) (which include Purchaser Furnished Equipment (PFE) and Purchaser Furnished Software (PFS)) will be provided through separate support contract provided with the PFP .

IPS-113 The Contractor shall detail approach and plans for ISS during Warranty in a relevant chapter into the IPSP.

IPS-114 The Contractor shall provide support to all items, ancillaries, and software provided under the Contract.

IPS-115 The Contractor shall be responsible for supplying all COTS hardware and firmware/software upgrades and updates till the end of warranty period.

IPS-116 The Contractor shall be responsible for the maintenance and repair of the system (except for PFE) until successful completion of FSA for each relevant batch and therefore shall provide its own spare parts, tools and test equipment to maintain the system (except for PFE) to the required performance level.

IPS-117 The Contractor shall provide In Service Support during Warranty for:

1) Batch 1;
2) Batch 2;
3) Batch 3.

IPS-118 The Contractor shall provide the following ISS during the Warranty to maintain the system to the required performance level, being responsible for:

1) Maintenance
   a. Hardware corrective/unscheduled and preventive/scheduled maintenance: repair and/or re-placement of all defective technical installations/equipment;
   b. Firmware/Software corrective/unscheduled and preventive/scheduled maintenance: remediation/resolution of all bugs, flaws, etc. of all software installations, provided as part of this contract.
   c. Maintenance to be carried out at the Customer's MPC, prior to node deployment and at the Customer's establishment to where node equipment is recovered, following its deployment;
   d. In the case of a failure could not be identified to an LRU level and/or could not be isolated within 3 business day (starting with the warranty request) even with on-call assistance from the Contractor, the Contractor shall dispatch a field engineer to provide a solution on-site.
2) Repair: collection from, repair and return of defective and/or failed equipment to Customer's MPC with maximum Turn Around Time (TAT) twenty (20) calendar days. This shall include in-processing, troubleshooting, repair, check-out and shipment until delivery to the Customer's MPC;
3) Any replaced part during the warranty period shall be under minimum 2 (two) years warranty beginning from the replacement date
4) On-demand support and technical assistance at the Customer's MPC providing indication for HW and SW corrective/unscheduled and preventive/scheduled maintenance HL/SL 2 included and onwards to ensure that the response times specified can be met (e.g.: MTTR, TAT).
5) Install and/or integrate Original Equipment Manufacturer (OEM) software application and operating system updates to node components at any point in a node's deployment cycle, to be carried out at the Customer's MPC only.

IPS-119 All HW and FW/SW corrective/unscheduled and preventive/scheduled maintenance HL/SL 3 that will be the Contractor's responsibility (i.e.: IMT), shall be conducted in the most suitable geographical location for the optimisation and cost-effectiveness of its implementation.

IPS-120 The Contractor shall warrant that all equipment, software, documents, system design, production and implementation provided under this Contract and all installation work performed under this Contract conform to the requirements and is free of any defect in material, code or workmanship and that all hardware (equipment) and software delivered under the Contract are genuine and free of any

malicious components, firmware and software, for a period of at least two (2) years after successful completion of last batch's FSA.

IPS-121 The Contractor shall allow and support ad-hoc spot checks and audits by the Purchaser of any of thier supply chain security measures at any of the Contractor's locations and facilities used in the Contractor's supply chain relevant to this Contract.

IPS-122 The Contractor shall provide Hardware and Firmware/Software corrective/unscheduled action within Next Business Day (NBD) after the initiation of the warranty request with the following constraints:

a. In case of a failure could not be isolated to an hardware LRU and/or firmware/software CSCI level within 3 working days even with on-call assistance from the Contractor, the Contractor shall dispatch a field engineer to provide a solution on-site; and

b. In the case of a critical failure the warranty period is suspended after 3 working days starting with the warranty request and the warranty period is reactivated after successful resolution of the crifical failure.

IPS-123 The Contractor shall repair repairable items received at the Contractor's plant in maximum Turn Around Time (TAT) twenty (20) calendar days. This shall include inprocessing, trouble shooting, repair, check-out and shipment at the expense of the Contractor until delivery to the Purchaser (i.e. to NATO CIS Sustainment Support Centre, at Brunssum) or to the Customer premises.

IPS-124 The Contractor shall be responsible for the provision of any alternative or superseding items, should the original part be no longer available, ensuring compliance with the original design (e.g.: SRS and PBL) and System provided by this Contract. However, in such cases the Contractor shall propose the alternative item for the Purchaser approval. The alternative item shall conform to all the specified quality requirements within the scope of the contract and standards The Contractor shall be responsible for the provision of any alternative or superseding items, should the original part be no longer available ensuring SRS and PBL compliance.

IPS-125 The Contractor shall submit a **Warranty Report**

1) At the end of every 3 month period during the warranty period, documenting all identified warranty cases, affected CI's, corrective actions, cost and schedule.

2) At the end of the warranty period that cumulative report all identified warranty cases, affected CI's, corrective actions, cost and schedule

IPS-126 The Contractor shall perform the Obsolescence Management during the warranty period providing the Obsolescence Report relevant information either in the Warranty Report or in an ad hoc report depending on the criticality.

4.12 IN SERVICE SUPPORT PLAN

IPS-127 The Contractor shall establish, provide, execute and maintain an effective **In Service Support Plan (ISSP)** that describes in detail the practical instructions necessary for the Purchaser's In Service Support organisation to operate and maintain the system (hardware and software) delivered under this Contract.

IPS-128 The ISSP shall describe the ISSP strategy and the detailed process and procedure to execute the ISS. This plan shall be detailed enough to form a comprehensive

understanding of how the Contractor proposes to meet the support requirements of this SOW.

IPS-129 The Contractor shall provide a description of how its proposed CM procedures shall continue to be implemented on the hardware and software/firmware during the ISS periods.

IPS-130 The ISSP shall be considered a living document and as such shall be updated as necessary by the Contractor, with the Purchaser's concurrence, throughout the contracted post warranty ISS.

IPS-131 The ISSP shall describe and detail the following:

1) Detailed description of the product baseline for the ISS (HW and SW)

2) Contractor's proposed ISS Management Organisation and Structure, to carry out the ISS effort proving adequate experience in the maintenance and support of major defence systems including specialised software.

3) Plan and methods for performing ISS activities (e.g.: intervention on each site, preventive maintenance, repair activities, spares replenishment) for the main three areas: Engineering Support (ES), Material Management (MM) and Field Engineering (FE) (i.e.: maintenance activities and field services) and evaluating the Contractor's performance during ISS through proposed Key Performance Indicators for each area.

4) Details for Data Reporting Analysis and Corrective Action System (DRACAS) and its link to ECP and configuration change management [included in Engineering Support Area].

5) Details for maintaining and updating the Technical Publications and the Logistics Database providing relevant input to training material for refreshing training courses [included in Engineering Support Area].

6) Details for spare parts procurement, replenishment and repair including PHST (e.g.: strategy for replacing hardware that can no longer be economically supported by the Contractor or sub-contractors) [included in Material Management Area].

7) Plan and methods for Configuration Management and Obsolescence Management specific for the ISS phase ; and

8) Plan and methods for communication (e.g.: for site personnel to inform ISS Contractor when spares have been used and when assistance is needed) detailing also the use of Call centre and Collaborative environment and how any exceptions have to be handled.

IPS-132 The Contractor shall provide a description of the proposed logistics and maintenance information processes. This description shall detail how the information from locations and the Contractor's maintenance facilities will be collected, stored and made available for evaluation. The term "Sites" refers to every physical location where systems or items under this contract are located when Contractor's activity is required.

IPS-133 The Contractor shall provide a description of how the QA/QC Programme of the Prime Contractor and sub-contractors providing ISS services shall meet the provisions of this contract. The Contractor shall include applicable certificates (issued by National Governments or International Organisations such as ISO) that demonstrate that the sub-contractors Quality Programme conforms to the requirement of the Prospective ISS Contract. The Contractor shall also

demonstrate how the provisions of the Prospective ISS Contract regarding QA/QC shall be inserted in all subcontracts and enforced by the Prime Contractor.

IPS-134 The Contractor shall provide the ISSP detailing the relevant content to cover the following structure.

Table 4-16 ISSP Content and Structure

Structure	Content
1	Introduction
2	Documents and Acronyms
2.1	List of Applicable Documents
2.2	List of Reference Documents
2.3	List of Acronyms
3	System Overview
3.1	Architecture
3.2	Operational scenario
3.3	Maintenance Concept
3.4	Support Concept
4	ISS Management
4.1	ISS team
4.2	ISS processes and procedure overview
4.3	ISS RACI Matrix
4.3	ISS constraints
4.4	ISS tools
4.5	ISS Contractual Documentation Requirements List (CDRL)
5	System Breakdown
6	Engineering Support (ES)
6.1	Framework and processes description
6.2	Data Reporting Analysis and Corrective Action System
6.3	Logistics deliveries update
6.4	Key Performance Indicators for ES
6.5	Supportability Evaluation and performance analysis
7	Material Management (MM)
7.1	Framework and processes description
7.2	Materials and maintenance concept
7.3	Stock
7.4	Key Performance Indicators for MM
8	Field Engineering (FE)
8.1	Framework and processes description
8.2	Manpower and support concept
8.3	Facilities
8.4	Key Performance Indicators for FE
9	Cost Model for ISS Activities

4.13 HEALTH, SAFETY & ENVIRONMENTAL PROTECTION

IPS-135 The Contractor shall treat Health and Safety (H&S) as a continuous process which addresses all areas, including where the Contractor shall apply best practices in accordance with EU and respective national H&S legislation for all areas of design, installation, construction and build.

IPS-136 The Contractor shall identify all hazards that exist and shall, as part of this activity, ensure that all personnel (operators and maintainers etc.) are provided with suitably designed and constructed equipment and are trained and provided with any necessary additional equipment to minimise the risk of accidents or injury.

IPS-137 The equipment and installations that are subject to this SOW shall be designed and constructed in such a way that they do not run in a hazardous condition or put human safety at risk.

IPS-138 The Contractor shall conduct a hazard review, consider and evaluate the risks and put in place control measures required to produce a statement with supporting evidence that the risks are As Low As Reasonably Practical (ALARP).

IPS-139 The Contractor shall apply engineering principles, criteria, and techniques to identify and eliminate safety hazards in the systems in accordance with MIL-STD-882E.

IPS-140 The Contractor shall design and/or select all equipment on the basis of inherent safety features that protect not only the human operators and maintainers but also the equipment itself.

IPS-141 The Contractor shall establish a System Safety Programme in accordance with “MIL-STD-882E, Section 4”, to fulfil the safety requirements of the Contract.

IPS-142 The Contractor shall provide, a **System Safety Program Plan (SSPP)** in accordance with MIL-STD- 882E.

IPS-143 The Contractor shall describe in the SSPP the risk assessment method.

IPS-144 The Contractor shall document the procedures to control design, selection, procurement and manufacture of parts and materials. Revisions to the SSPP shall incorporate Purchaser-agreed changes, additions or deletions that have evolved during the conduct of the Programme.

IPS-145 Safety verification shall be conducted at each site prior to each SAT to ensure compliance with the SSPP. The safety verification shall verify the safety requirements for all types of hazards not eliminated by design. The Contractor shall document the safety verification process in the SSPP. The Contractor’s responsibilities shall be defined in the SSPP.

IPS-146 The SSPP shall also include **System Safety Hazard Analysis Report (SSHAR)** as mentioned in MIL-STD- 882E.

IPS-147 The SSPP shall also define Environmental and Safety Requirements as defined at following sub-paragraphs:

IPS-148 Environmental requirements shall be implemented and verified by the Contractor in accordance with National laws and regulations.

IPS-149 The Contractor shall comply with the national legislation concerning job accidents, incident prevention and hygiene at work. The Contractor shall also make legal arrangements for protection of the life and security of all the personnel and to guarantee medical assistance whenever necessary due to job accidents. The same legal arrangements shall be applied to sub-Contractor personnel under Contractor’s responsibility.

IPS-150 Health and Safety Hazards: The physical presence, operation and maintenance of the system shall pose no health or safety hazards to personnel.

IPS-151 Carcinogenic and Radio-active Materials, Mercury: Materials containing known carcinogenic substances, radio-active materials or mercury shall only be used with the prior authorisation of the Purchaser with the exception of Radium that is not to be used to achieve self-luminosity.

IPS-152 Hazard Warning Labels: Equipment warning labels shall be attached wherever there is any potential heavy lifting, electrical, chemical, electromagnetic radiation

or heat hazard or a potential hazard caused by human contact with materials, particularly when removal of covers will expose the hazard.

IPS-153 Production of Toxic or Corrosive Fumes: Materials used, under the specified environmental and service conditions or as a result of heating due to conflagration, shall not liberate:

1) Gases that combine with the atmosphere to form an acid or corrosive alkali;
2) Toxic or corrosive fumes that would be detrimental to the performance of the equipment or health of personnel;
3) Gases that will produce an explosive atmosphere.

IPS-154 Equipment shall not contain any asbestos material.

IPS-155 Glass Fiber Materials: Glass fiber materials shall not be used as the outer surface or covering on cables, wire or other items where they may cause skin irritation to operating personnel.

IPS-156 Moving Part Protection: Any rotating or other moving part such as ventilators, blowers, drive belts etc., shall be shielded or protected adequately to prevent accidental contact by and injury to any personnel during operation and maintenance.

IPS-157 Equipment Edges: Projecting and overhanging edges of equipment items shall be kept to a minimum. Edges and corners shall be rounded.

IPS-158 Environmental Conditions Indoors, temperature, humidity: Equipment shall function without degradation under the environmental conditions as specified.

IPS-159 Noise generated by the system in operation shall not exceed the levels specified in the local regulations or Environmental Noise Directive (2002/49/EC) whichever it is more restrictive for operational, maintenance areas.

IPS-160 Any safety related warnings and cautions shall be documented in the related sections of the manuals. Adequate labelling and marking shall be provided on the equipment and systems.

IPS-161 All equipment and installations provided by the Supplier shall be:

1) ambient physicochemical and fluids resistant
2) new, of high quality and standard manufacturing (unless bespoken product is required), and OEM with proven experience and feedback of supportability performances

IPS-162 If lifting devices, ladders, safety equipment, special tools or harnesses are required, the Contractor shall provide them.

IPS-163 The ladders shall be compliant with following standards:

1) EN 131-1:2015+A1:2019 Ladders. Terms, types, functional s ises
2) EN 131-2:2010+A2:2017 Ladders. Part 2: Requirements, testing, marking
3) EN 131-3:2018 Ladders. Marking and user instructions

IPS-164 Personnal protective equipment (PPE) shall be compliant with Regulation (EU) 2016/425 of the European Parliament and of the Council of 9 March 2016 on personal protective equipment and repealing Council Directive 89/686/EEC.

IPS-165 No special or difficult techniques that require unusual dexterity or skill in removing or installing items can be assumed.

IPS-166 The equipment and installations provided by the Contractor shall meet requirements stipulated in following publications (including but not limited to following publications), as applicable:

1) Directive 2001/95/EC of the European Parliament and of the Council of 3 December 2001 on general product safety
2) Directive 2001/95/EC of the European Parliament and of the Council of 3 December 2001 on general product safety
3) Directive 2014/30/Eu of The European Parliament and of The Council of 26 February 2014 – electromagnetic compatibility
4) Directive 2014/35/Eu of The European Parliament and of The Council of 26 February 2014 – 'low voltage directive'
5) IEC 60950 series: Information technology equipment – Safety
6) IEC 62821 series: Electric cables - Halogen-free, low smoke, thermoplastic insulated and sheathed cables of rated voltages up to and including 450/750V
7) IEC 61000 series – Electromagnetic compatibility (EMC)
8) IEC 60529 – Degrees of protection provided by enclosures (IP Code)
9) EN 61340-5-1:2016 Electrostatics. Protection of electronic devices from electrostatic phenomena
10) MIL-STD-882E – Systems Safety
11) MIL-STD-1472G, DoD Design Criteria Standard, Human Engineering, dated 2012

IPS-167 The above list of standards does not relieve the Contractor from the obligation to comply with other applicable National Standards.

IPS-168 The Contractor shall clearly state which standards shall apply to each of the designed and installed deliveries.

4.14 TRANSFER OF OWNERSHIP

IPS-169 The Contractor shall be liable with regard to the function and performance of the system during the entire lifecycle.

IPS-170 Transfer of ownership of the system shall occur at FSA when the Purchaser has confirmed final acceptance in writing.

IPS-171 During the period between PSA and FSA, the Contractor shall incrementally transfer the ability to conduct first, second and third level[15] of support from the Contractor staff to the Customer.

IPS-172 Liability for usage induced failures shall hence be transferred to the Customer on successful completion of the PSA.

IPS-173 The Customer shall assume Intellectual Property of the TDCIS design and configuration on successful completion of the PSA. Liability with regard to the function and performance of the system shall remain with the Contractor.

[15] The Customer will be responsible for a portion of the 3rd level support, with the remainder to be the Contractor's responsibility. This will be clarified during production of the MTA.