



ΕΛΛΗΝΙΚΗ ΔΗΜΟΚΡΑΤΙΑ
Μόνιμη Αντιπροσωπεία της Ελλάδος
στο ΝΑΤΟ

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Βρυξέλλες, 15 Δεκεμβρίου 2021
Α.Π.: 6552

ΠΡΟΣ: **ΥΠΟΥΡΓΕΙΟ ΕΘΝΙΚΗΣ ΑΜΥΝΑΣ**
- ΓΔΑΕΕ/ΔΑΕΤΕ (μ.η.)

ΚΟΙΝ.: **ΥΠΟΥΡΓΕΙΟ ΕΞΩΤΕΡΙΚΩΝ**
- κ. Δ' Γενικό Διευθυντή
- Δ2 Διεύθυνση

ΓΕΕΘΑ
- Γ2 Διεύθυνση

ΥΠΟΥΡΓΕΙΟ ΑΝΑΠΤΥΞΗΣ
- Γενική Γραμματεία Εμπορίου (μ.η.)
- Γενική Γραμματεία Βιομηχανίας/
Διεύθυνση Διεθνών Βιομηχανικών
Σχέσεων (μ.η.)

ΤΕΧΝΙΚΟ ΕΠΙΜΕΛΗΤΗΡΙΟ ΕΛΛΑΔΟΣ
- Διεύθυνση Επαγγελματικής
Δραστηριότητας (μ.η.)

ΘΕΜΑ: 3η Τροποποίηση Αίτησης Υποβολής Προσφορών RFQ-CO-115511-UOMM, Διαγωνιστικής Διαδικασίας: "Urgent Obsolescence Management Mitigation (UOMM) Network Intrusion Detection/Prevention Systems (NIPS) and Full Packet Capture (FPC)"

Διαβιβάζεται, συνημμένως, 3^η Τροποποίηση Αίτησης Υποβολής Προσφορών (Request for Quotation/RFQ), διαγωνιστικής διαδικασίας Basic Ordering Agreement Plus (BOA+) θέματος, εκ μέρους NCIA, ως φιλοξενούντος έθνους.

Επισημαίνεται ότι καταληκτική ημερομηνία υποβολής προσφορών ορίζεται η 13^η Ιανουαρίου 2022, 13:00 τ.ώ.

Ενδιαφερόμενες εταιρίες δύνανται αναζητήσουν πληροφορίες μέσω καθορισμένου σημείου επαφής (Point of Contact/POC, βλ. παρ. 9 τροποποιήσεως).

Παρακαλούμε για τις ενέργειές σας.

Λ Α Μ Π Ρ Ι Δ Η Σ

Συν. σελ.:165

ΑΚΡΙΒΕΣ ΑΝΤΙΓΡΑΦΟ
Ο υπάλληλος της Μ.Α. ΝΑΤΟ
Σταύρος Τσάκωνας
Τμηματάρχης Α', ΕΠ.&ΠΛ.



Acquisition Directorate

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NCIA/ACQ/2021/07488

10 December 2021

To: All Nominated Prospective Bidders
Subject: Request for Quotation (RFQ) Amendment 3, for the Urgent Obsolescence Management Mitigation, RFQ-CO-115511-UOMM

- Reference:
- A. NCIA/ACQ/2021/07026, Notification of Intent for RFQ-CO-15511-UOMM, dated 2 July 2021
 - B. NCIA/ACQ/2021/07262, Request for Quotation RFQ-CO-15511-UOMM, dated 5 October 2021.
 - C. NCIA/ACQ/2021/07359, Amendment 1 to Request for Quotation RFQ-CO-15511-UOMM, dated 28 October 2021
 - D. NCIA/ACQ/2021/07426, Amendment 2 to Request for Quotation RFQ-CO-15511-UOMM, dated 12 November 2021

Dear Madam/Sir,

1. The purpose of this Amendment (3) is to:
 - a) Publish supplemental information related to previously published responses as well as nine (9) new RFQ Offerors' questions and NCI Agency responses;
 - Supplemental information provided for T.33, T.47, T.54, T.57, T.65, T.66, T.71, T.74, T.75, T.77, T.81, T.88, T.117, T.131, T.137
 - New questions listed are T.140 – T.148
 - b) Issue revised RFQ documents (Book I and Book II) as follows:
 - 06_RFQ-CO-115511-UOMM WP0.3 - Book II - Part II SP AMD3
 - 08_RFQ-CO-115511-UOMM WP0.3 – Book II – Part IV SOW AMD3
2. As a direct or indirect result of these CRs, the following documents have been amended and are re-issued in its entirety. Prospective Offerors are strongly advised to carefully review the revised documents. The changes within the RFQ documents are denoted in **red** for ease of traceability.



3. This Amendment makes the following revisions:

Book II – Part II SP – Summary of Changes

- Article 44: Added to replace Article 8 of Part III, The General Provisions

Book II – Part IV SOW – Summary of Changes

- 4.1.3.1: removed “NCIRC Tier 2, Casteau (Mons) NR/NS Belgium” and revised serial numbers 3 – 18.
 - 4.1.3.2: removed “NCIRC Tier 2, Casteau (Mons) NR/NS Belgium” and revised serial numbers 3 – 29.
 - 4.1.7.1: replaced the word “customer” with the word “Purchaser”.
 - 4.1.9.10: replaced the word “customer” with the word “Purchaser”.
 - 4.4.2.1: removed “Draft System Design and Implementation Plan”.
 - 4.4.2.2: removed “Baselined System Design and Implementation Plan” and added “Baselined Site Implementation Plan”.
 - 4.4.2.2: removed “Accepted validated Site Survey Reports and acceptance of completion of all site survey based activities”.
 - 4.4.3.2: replaced the word “System” with the word “Site”.
 - 4.4.3.2.1: added the word “each”.
 - 4.4.3.2.1: removed “Services restored and accepted as per original SLA”.
 - 4.5.1.4: replaced references to “4.5.2.6, 4.5.2.7 and 4.5.2.8” with references “4.5.1.6, 4.5.1.7 and 4.5.1.8”
 - 5.14.4: replaced the word “REACH” with the word “FSA”.
 - 6.2.4: replaced the word “customer” with the word “Purchaser”.
 - 6.11.2: replaced the word “customer” with the word “Purchaser”.
 - A.4 Table of FPC Phases and Sites: removed “1” Hybrid from NAEW Geilenkirchen DE NS and correct the quantity of Concentrators under PIA SHAPE Casteau (Mons) BE NR from “14” to “4”.
4. The RFQ closing date is changed as follows:
FROM: **13:00 hours (Central European Time) on Thursday, 16 December 2021**
TO: **13:00 hours (Central European Time) on Thursday, 13 January 2022**
5. The Due Date for Clarification Requests (CR) closed on Thursday, 18 November 2021.
6. Revised RFQ documents as indicated in paragraph 1 above are attached to this RFQ Amendment 3 and replace previous versions in its entirety. Potential Offerors are strongly advised to carefully review revised RFQ documents.
7. With the exception of the revisions mentioned above, all other RFQ documents remain unchanged.
8. 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 bid preparation costs incurred by firms or any other collateral costs if bid cancellation occurs.
9. All Correspondence regarding this RFQ should solely be addressed to the undersigned, who may be reached at: RFQ-CO-UOM-M@ncia.nato.int



FOR THE DIRECTOR OF ACQUISITION

Mr. Edel Esparza
Principal Contracting Officer (acting)

Attachments: RFQ Amendment 3

- 1) Revised RFQ Documents:
 - a. 06_RFQ-CO-115511-UOMM WP0.3 - Book II - Part II SP AMD3
 - b. 08_RFQ-CO-115511-UOMM WP0.3 – Book II – Part IV SOW AMD3
- 2) Clarification Requests – RFQ-CO-115511-UOMM Book I Annex A
- 3) Other supporting document - RFQ-CO-115511-UOMM SOW 3.4.1 – CR T.33

Distribution List for RFQ-CO-115511-UOMM
Amendement 3

• **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
Romania
Slovakia
Slovenia
Spain
Turkey
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
Iceland
Italy
Latvia
Lithuania

Luxembourg
Montenegro
The Netherlands
North Macedonia
Norway
Poland
Portugal
Romania
Slovakia
Slovenia
Spain
Turkey
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

• **Strategic Commands**

ACO/DCOS CIS & Cyber Defence

ACT/DCOS Capability Development

• **NCI Agency -Internal Distribution**

ACQ Director of Acquisition (Mrs Jennifer Upton)

ACQ Deputy Director of Acquisition (Mrs Agata Szydelko)

Chief of Contracts (Ms Rebecca Benson)

Administrator Contracts Award Board (Mrs Carolien Biesemans)

ACQ Principal Contracting Officer (Mr Edel Esparza)

ACQ Principal IPS Officer (Mr Massimiliano Filippi)

NLO (Ms Samantha Paarlberg)

NCSC Chief Cyber Security (Mr Ian West)

NCSC Head Cyber Security Programme Delivery Branch (Mr Frederic Jordan)

NCSC Programme Manager (Mr Tyson McWha)

NCSC Project Manager (Mr Miles Knight)

Legal Office (Mr Vincent Roobaert)

Legal Office (Mr Sean Elameto)

CTO A&E Branch (Mr Jose Herrero)

Registry

• **NCI Agency - All NATEXs**



NATO UNCLASSIFIED

RFQ-CO-115511-UOMM
Book II, The Prospective Contract
Part II, Special Provisions
NCIA/ACQ/2021/07262

RFQ-CO-115511-UOMM

URGENT OBSOLESCENCE MANAGEMENT – MITIGATION (UOMM) FOR CIS SECURITY SERVICES

NETWORK INTRUSION DETECTION/PREVENTION SYSTEMS (NIPS) AND FULL PACKET CAPTURE (FPC)

(TECHNOLOGY REFRESH)



NATO Communications and Information Agency
Agence OTAN d'information et de communication

BOOK I, PART II

SPECIAL PROVISIONS

NATO UNCLASSIFIED



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1. ALTERATIONS, MODIFICATIONS AND DELETIONS OF THE NCI AGENCY CONTRACT GENERAL PROVISIONS

- 1.1. Article 7 "Participating Countries" supplements Article 9 "Participating Countries" of Part III - The General Provisions.
- 1.2. Article 8 "Security" augments Article 11 "Security" of Part III - The General Provisions.
- 1.3. Article 11 "Contractor's Personnel Working at Purchaser's Facilities" supplements Article 14 "Contractor Personnel Working at Purchaser's Facilities" of Part III - The General Provisions.
- 1.4. Article 12 "Pricing of Changes, Contract Amendments, Follow-on Contracts and Contract Claims" augments Article 19 "Pricing of Changes, Amendments and Claims" of Part III - The General Provisions.
- 1.5. Article 31 "Inspection and Acceptance of Work" supplements Article 21 "Inspection and Acceptance of Work" of Part III - The General Provisions.
- 1.6. Article 32 "Invoices and Payment" augments Article 25 "Invoices and Payment" of Part III - The General Provisions.
- 1.7. Article 37 "Warranty of Services" supplements Article 27 "Warranty of Work (Exclusive of Software)" of Part III - The General Provisions.
- 1.8. Article 38 "Liquidated Damages" supplements Article 38 "Liquidated Damages" of Part III - The General Provisions.
- 1.9. Article 39 "Consequences of Termination or Expiry" supplements Article 39 "Termination for Default" of Part III – The General Provisions.
- 1.10. Article 44 "Performance Guarantee" replaces Article 8 "Performance Guarantee" of Part III – The General Provisions.

2. ORDER OF PRECEDENCE

- 2.1. In the event of any inconsistency in this Contract, the inconsistency shall be resolved by giving precedence in the following order:
 - a. Signature sheet
 - b. Part I - The Schedule of Supplies and Services (SSS)
 - c. Part II - The Contract Special Provisions

- d. Part III – BOA General Provisions or Contract General Provisions
- e. Part IV - The Statement of Work (SOW) and SOW Annexes
- f. The Contractor's Technical Proposal including any clarifications thereto, incorporated by reference, and the formal documentation of pre-Contract discussions.

3. TYPE OF CONTRACT

- 3.1. This is a Firm-Fixed Price (FFP) Contract established for the supplies and services defined in Part I - SSS and Part IV - SOW.
- 3.2. The FFP include all expenses related to the performance of the prospective Contract to include travel. The Purchaser assumes no liability for costs incurred by the Contractor in excess of the stated FFP except as provided under other provisions of this Contract.
- 3.3. The Total Contract price is inclusive of all expenses related to the performance of the present contract.

4. PROJECT OVERVIEW

- 4.1. The NCI Agency is seeking the acquisition and deployment of cyber security equipment to replace equipment and systems that are at or near End of Life (EoL) or End of Support (EoS).
- 4.2. The geographical location within the scope of the Contract is as per the SSS and the SOW.
- 4.3. The full requirements, Contractor Deliverables and scope is as per the SOW.

5. PERIOD OF PERFORMANCE (POP)

- 5.1. The Period of Performance (POP) for this critical, time of the essence project, from Effective Date of Contract and including warranty period is as follows:
 - 5.1.1. EDC +100 weeks.

6. COMPREHENSION OF CONTRACT AND SPECIFICATIONS

- 6.1. The Contractor warrants that he has read, understood and agreed to each and all terms, articles, specifications and conditions specified in the Contract and that this signature of the Contract is an acceptance through delivery, without reservations, of the said Contract terms within their normal and common meaning.
- 6.2. The specifications set forth the performance requirements for the Contractor's proposed work as called for under this Contract. Accordingly, notwithstanding any conflict or inconsistency which hereafter may be found between achievement of the aforesaid performance requirements and adherence to the Contractor's proposed design for the work, the Contractor hereby warrants that it shall use reasonable endeavours to ensure that the work be delivered to meet or exceed the performance requirements of the said specifications.
- 6.3. The Contractor hereby acknowledges that he has no right to assert against the Purchaser, its officers, agents or employees, any claims or demands with respect to the aforesaid specifications as are in effect on the date of award of this Contract.
 - 6.3.1. Based upon impossibility of performance, defective, inaccurate, impracticable, insufficient or invalid specifications, implied warranties of suitability of such specifications, or,
 - 6.3.2. Otherwise derived from the aforesaid specifications, and hereby waives any claims or demands so based or derived as might otherwise arise.
 - 6.3.3. Notwithstanding Article 16 "Changes" in Part III - The General Provisions or any other Article(s) of the Contract, the Contractor hereby agrees that no changes to the aforesaid specifications which may be necessary to permit achievement of the performance requirements specified herein for the Contractor's proposed work shall entitle the Contractor either to any increase in the FFP as set forth in this Contract or to any extension of the delivery times for the work beyond the POP in the SSS.

7. PARTICIPATING COUNTRIES

- 7.1. This Article supplements Article 9 "Participating Countries" of Part III - The General Provisions.

- 7.2. The following NATO member nations have agreed to fund this acquisition effort: (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, ROMANIA, SLOVAKIA, SLOVENIA, SPAIN, TURKEY, UNITED KINGDOM, UNITED STATES OF AMERICA.
- 7.3. The Contractor may issue sub-contracts to firms and purchase from qualified vendors in any NATO member nation. None of the work, including project design, labour and services, shall be performed other than by firms from and within participating countries and Afghanistan, as per NATO policy.
- 7.4. The Contractor shall notify in writing to the Purchaser immediately upon being informed of any change in the nationality of its Sub-contractor(s) which would prevent the Contractor from further complying with Article 7.3 above. Upon receipt of this information from the Contractor, the Purchaser may, within three months from this notification, require the Contractor to find an alternate subcontractor, complying with the requirements set out in Article 7.3 above.
- 7.5. Unless authorized by NATO Policy, no material or items of equipment down to and including identifiable sub-assemblies delivered under this Contract shall be manufactured or assembled by a firm other than from and within a participating country.
- 7.6. The intellectual property rights to all designed documentation and 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 community.

8. SECURITY

- 8.1. This Article augments Article 11 "Security" of Part III - The General Provisions.
- 8.2. The security classification of this Contract is NATO UNCLASSIFIED.
- 8.3. Contractor and Subcontractor personnel employed under this Contract that will require access to NATO locations, such as sites and headquarters, where classified material and information up to and including "NATO SECRET" are handled shall be required to have a NATO security clearance up to this level. Contractor personnel who need System

Administrator or Operator privileges when working on NATO SECRET systems shall be required to hold NATO CTS (Cosmic Top Secret) clearances.

- 8.4. The Contractor will be required to handle and store classified material to the level of "NATO SECRET".
- 8.5. It is the responsibility of the Contractor to ensure that its personnel obtain the required security clearances and transmit this information to the sites to be visited in adequate time that the site may perform the appropriate administration. Contractors are advised that the personnel security process may be lengthy. The Purchaser bears no responsibility for the failure of the Contractor to secure the required clearances for its personnel within the necessary time.
- 8.6. Failure to obtain or maintain the required level of security for Contractor personnel for the period of performance of this Contract shall not be grounds for any delay in the scheduled performance of this Contract and may be grounds for termination under Article 11 Sub-Contracts and Article 39 Termination for Default, Part III - General Provisions.
- 8.7. The Contractor's Team Members shall possess a valid passport or ID Card and is required to maintain its validity for duration of the contract.
- 8.8. All NATO CLASSIFIED material entrusted to the Contractor shall be handled and safeguarded in accordance with the applicable security regulations.
- 8.9. At the end of the Contract, the Contractor shall deliver all the documentation and information collected and generated in support of this Contract to the Purchaser. This includes a certificate that no copies are retained at the Contractor's facilities. Additionally, any equipment that had been connected to a classified network during this Contract shall be returned to the Purchaser (i.e. laptops, USB-keys, etc.).
- 8.10. In the performance of all works under this Contract, it shall be the Contractor's responsibility to ascertain and comply with all applicable NATO and National security regulations as implemented by the Purchaser and by the local authorities.
- 8.11. The Contractor shall note that there are restrictions regarding the carriage and use of electronic device (e.g. laptops, cell/mobile telephones) in Purchaser secured locations. The Contractor shall be responsible for satisfying and obtaining from the appropriate site authorities the necessary clearance to bring any such equipment into the facility.

- 8.12. The Statement of Work defines the level of security of information exchanged and used for performance of the Contract.
- 8.13. In particular, the Contractor undertakes to:
- 8.13.1. Appoint an official responsible for supervising and directing security measures in relation to the Contract and communicating details of such measures to the Purchaser on request;
 - 8.13.2. Maintain, preferably through the official responsible for security measures, a continuing relationship with the national security authority or designated security agency charged with ensuring that all NATO classified information involved in the Contract is properly safeguarded;
 - 8.13.3. Abstain from copying by any means, without the authorization of the Purchaser, the national security authority or designated security agency, any classified documents, plans, photographs or other classified material entrusted to him;
 - 8.13.4. Furnish, on request, information to the national security authority or designated security agency pertaining to all persons who will be required to have access to NATO classified information;
 - 8.13.5. Maintain at the work site a current record of his employees at the site who have been cleared for access to NATO classified information. The record should show the date of issue, the date of expiration and the level of clearance;
 - 8.13.6. Deny access to NATO classified information to any person other than those persons authorized to have such access by the national security authority or designated security agency;
 - 8.13.7. Limit the dissemination of NATO classified information to the smallest number of persons ("need to know basis") as is consistent with the proper execution of the Contract;
 - 8.13.8. Comply with any request from the national security authority or designated security agency that persons entrusted with NATO classified information sign a statement undertaking to safeguard that information and signifying their understanding both of their obligations under national legislation affecting the safeguarding of classified information, and of their comparable obligations under the laws of the other NATO nations in which they may have access to classified information;

- 8.13.9. Report to the national security authority or designated security agency any breaches, suspected breaches of security, suspected sabotage, or other matters of security significance which would include any changes that may occur in the ownership, control or management of the facility or any changes that affect the security arrangements and security status of the facility and to make such other reports as may be required by the national security authority or designated security agency, e.g. reports on the holdings of NATO classified material;
- 8.13.10. Apply to the Purchaser for approval before Sub-contracting any part of the work, if the Sub- contract would involve that the Subcontractor would have access to NATO classified information, and to place the Sub-contractor under appropriate security obligations no less stringent than those applied to his own contract;
- 8.13.11. Undertake not to utilize, other than for the specific purpose of the Contract, without the prior written permission of the Purchaser or his authorized representative, any NATO classified information furnished to him, including all reproductions thereof in connection with the Contract, and to return all NATO classified information referred to above as well as that developed in connection with the Contract, unless such information has been destroyed, or its retention has been duly authorized with the approval of the Purchaser. Such NATO classified information will be returned at such time as the Purchaser or his authorized representative may direct;
- 8.13.12. Classify any produced document with the highest classification of the NATO classified information disclosed in that document.

9. TRANSPORTATION OF EQUIPMENT

- 9.1. All supplies covered under this Contract, including Purchaser Furnished Equipment (PFE), shall be transported to and from all destinations at the responsibility of the Purchaser, once handed over to the Contractor, and items shipped under warranty for repair or otherwise, shall be transported to and from all destinations at the responsibility of the Purchaser. The Contractor shall not be liable for any storage, damage, accessorial or any other charges involved in such transporting of supplies.

10. CONTRACTOR'S RESPONSIBILITY

- 10.1. The Contractor shall monitor changes and/or upgrades to commercial off the shelf (COTS) software or hardware to be utilized under subject Contract.
- 10.2. For COTS items which are or could be impacted by obsolescence issues, as changes in technology occur, the Contractor will propose substitution of new products/items for inclusion in this Contract. The proposed items should provide at least equivalent performance and/or lower life-cycle support costs, or enhanced performance without a price or cost increase.
- 10.3. The Contractor will provide evidence with respect to price and performance of the equipment being proposed as well as data proving an improvement in performance and/or a reduction in price and/or life-cycle support costs. If necessary for evaluation by the Purchaser, the Contractor shall provide a demonstration of the proposed items. Should the Purchaser decide that the proposed item(s) should be included in the Contract, an equitable price adjustment will be negotiated and the proposed item(s) shall be added to the Contract by bilateral modification under the authority of this Article.
- 10.4. The Contractor shall notify the Purchaser of any proposed changes in the commercial off the shelf software or hardware to be utilized. Such notification shall provide an assessment of the changes and the impact to any other items to be delivered under this Contract.

11. CONTRACTOR'S PERSONNEL WORKING AT PURCHASER'S FACILITIES

- 11.1. This Article supplements Article 14 "Contractor's Personnel Working at Purchaser's Facilities" of Part III - The General Provisions.
- 11.2. The Contractor shall be responsible for ascertaining what necessary facilities will be available and whether they will be provided free of charge, or determining what charges are payable. The Contractor shall have no claim against the Purchaser for any such additional cost or delay or any additional cost or delay occasioned by the closure for holidays of said facilities, or other reasons, where this is generally published or made known to the Contractor by the Purchaser or his authorised representatives.

12. PRICING OF CHANGES, AMENDMENTS TO CONTRACT, FOLLOW-ON CONTRACTS AND CONTRACT CLAIMS

- 12.1. This Article augments Article 19 "Pricing of Changes, Amendments and Claims" of Part III - The General Provisions
- 12.2. All amendments to this Contract shall be serially numbered, in writing, and issued by the Purchaser's Contracts Officer.
- 12.3. The Purchaser may at any time, by written order designated or indicated to be a change order, and without notice to the sureties, if any, make changes within the scope of any Contract, in accordance with Article 16 "Changes" of Part III, General Provisions.
- 12.4. Changes, amendments, follow-on Contracts of any nature, and claims shall be priced in accordance with Article 19 "Pricing of Changes, Amendments and Claims" of Part III - The General Provisions, and with the "Purchaser's Pricing Principles" as set out in the Annex 1 to Part III – The General Provisions.
- 12.5. Except otherwise provided for in this Contract, prices quoted for the above-mentioned changes, modifications, etc. shall have a minimum validity period of twelve (12) months from the date of purchaser acceptance of proposal.
- 12.6. The pricing information contained in the cost breakdown sheets submitted with the Bidding sheets, as part of the Contractor's proposal, and especially the forward labour rates provided, will constitute the basis for any future negotiations related to possible future amendments to this Contract.

13. WAIVER

- 13.1. No act or omission of either Party shall by itself amount to a waiver of any right or remedy unless expressly stated by that Party in writing. In particular, no reasonable delay in exercising any right or remedy shall by itself constitute a waiver of that right or remedy.
- 13.2. No waiver in respect of any right or remedy shall operate as a waiver in respect of any other right or remedy.

14. THIRD PARTY RIGHTS

- 14.1. Notwithstanding anything to the contrary elsewhere in the Contract, no right is granted to any person who is not a Party to the Contract to enforce any term of the Contract in its own right and the Parties to the Contract declare that they have no intention to grant any such right.

15. ENTIRE AGREEMENT

- 15.1. This Contract constitutes the entire agreement between the Parties relating to the subject matter of the Contract. The Contract supersedes, and neither Party has relied upon, any prior negotiations, representations and undertakings, whether written or oral, except that this condition shall not exclude liability in respect of any fraudulent misrepresentation.

16. NON DISCLOSURE

- 16.1. The Contractor's performance under this Contract may require access to third party data and information. The Contractor shall exercise the same degree of care for such third party data and information that it undertakes to preserve and protect its own data and information.
- 16.2. All Contractor and Sub Contractor personnel working at any NATO Organisations/ Commands premises or having access to NATO classified/commercial-in-confidence information must certify and sign the Non-Disclosure Declaration at Annex A hereto and provide it to the Purchaser's Contracting Authority prior to the commencement of any performance under this contract.
- 16.3. The Contractor and Subcontractors may be reasonably required to sign subject to their review other non-disclosure agreements or certificates for access to specific information to complete tasks.
- 16.4. The Contractor shall ensure that its officers, employees, agents and Sub-Contractors shall have been made aware of the requirements of confidentiality and shall not cause or permit the data and/or information to be either totally or partially disclosed to any unauthorised Contractor personnel or third party personnel.
- 16.5. The Contractor shall be liable for all damages resulting from the non-authorized use of the data and/or information by the Contractor's personnel.

17. ADVERTISEMENTS, PUBLICIZING AWARDS, NEWS RELEASES, AND CONFERENCES

- 17.1. All press releases or announcements about any contract award hereunder shall be approved by the Purchaser's Contracting Authority prior to release. Under no circumstances shall the Contractor, subcontractor, teaming partner, or anyone acting on behalf of the Contractor, refer to the supplies, services, or equipment furnished pursuant to the provisions of this contract in any publicity news release or commercial advertising without first obtaining explicit written consent to do so from the Purchaser's Contracting Authority. The Contractor agrees not to refer to awards in commercial advertising in such a manner as to state or imply that the product or service provided is endorsed or preferred by the Purchaser or is considered by the Purchaser to be superior to other products or services.
- 17.2. Any presentation, white paper, article et cetera written, submitted or presented by Contractor personnel shall be reviewed and approved by the Purchaser's Contracting Authority prior to delivery. This special requirement shall apply whether the Contractor personnel is acting on behalf of the company or unofficially on behalf of himself or herself.

18. EQUALITY

- 18.1. Without prejudice to Article 7 above:
- 18.1.1. the Contractor shall not unlawfully discriminate either directly or indirectly on the grounds of age, disability, gender, sex or sexual orientation, marital status (including civil partnerships), pregnancy and maternity, race, or religion or belief.
- 18.1.2. the Contractor agrees to take reasonable efforts to secure the observance of the provisions of this Article 18 by any of its employees, agents, or other persons acting under its direction or Control who are engaged in the performance of the Contract.
- 18.1.3. the Contractor agrees to take reasonable efforts to reflect this Article 18 in any subcontract that it enters into to satisfy the requirements of the Contract and to require its Subcontractors to reflect this Article 18 in their subcontracts that they enter into to satisfy the requirements of the Contract.

19. APPLICABLE REGULATIONS

- 19.1. The Contractor shall be responsible for obtaining permits or licences to comply with national codes, laws and regulations or local rules and practices of the country of work with respect of any works carried out at the designated work sites stated under this Contract.
- 19.2. The Contractor shall take any necessary measure to protect the life and health of persons working or visiting the work area occupied by him. These measures include compliance with the country of work's safety provisions and the requirements provided in the SOW Section 9.

20. CONFLICT OF INTEREST

- 20.1. A conflict of interest means that because of other activities or relationships with other persons or entities, a Contractor is unable, or potentially unable to render impartial assistance or advice to the Purchaser, or the Contractor's objectivity in performing the Contract work is, or might be otherwise impaired, or the Contractor has an unfair competitive advantage. Conflict of interest includes situations where the capacity of a Contractor (including the Contractor's executives, directors, consultants, subsidiaries, parent companies or Subcontractors) to give impartial, technically sound advice or objective performance is or may be impaired or may otherwise result in a biased work product or performance because of any past, present or planned interest, financial or otherwise in organizations whose interest may substantially affected or be substantially affected by the Contractor's performance under the Contract.
- 20.2. The Contractor is responsible for maintaining and providing up-to-date conflict of interest information to the Purchaser's Contracting Authority. If, after award of this Contract herein, the Contractor discovers a conflict of interest with respect to this Contract which could not reasonably have been known prior to award, or if any additional conflicts or potential conflicts arise after award, the Contractor shall give written notice to the Purchaser's Contracting Authority as set forth below.
- 20.3. If, after award of this Contract herein, the Purchaser discovers a conflict of interest with respect to this Contract, which has not been disclosed by the Contractor, the Purchaser may at its sole discretion request additional information to the Contractor, impose mitigation measures, or terminate the Contract for default in accordance with Article 39 "Termination For Default" of Part III – The General Provisions.

- 20.4. The Contractor's notice called for in Article 20.2 above shall describe the actual, apparent, or potential conflict of interest, the action(s) the Contractor has taken or proposes to take to avoid or mitigate any conflict, and shall set forth any other information which the Contractor believes would be helpful to the Purchaser's Contracting Authority in analyzing the situation. Any changes to the contractor's Conflict of Interest Mitigation Plan, if any is incorporated in the Contract, should be also detailed.
- 20.5. The Contractor has the responsibility of formulating and forwarding a proposed conflict of interest mitigation plan to the Purchaser's Contracting Authority, for review and consideration. This responsibility arises when the Contractor first learns of an actual, apparent, or potential conflict of interest.
- 20.6. If the Purchaser's Contracting Authority in his/her discretion determines that the Contractor's actual, apparent, or potential conflict of interest remains, or the measures proposed are insufficient to avoid or mitigate the conflict, the Purchaser's Contracting Authority will direct a course of action to the Contractor designed to avoid, neutralize, or mitigate the conflict of interest. If the parties fail to reach agreement on a course of action, or if having reached such agreement the Contractor fails to strictly adhere to such agreement during the remaining period of Contract performance, the Purchaser's Contracting Authority has the discretion to terminate the Contract for default or alternatively refrain from exercising any further Option or Work Package under the contract.
- 20.7. The Contractor's misrepresentation of facts in connection with a conflict of interest reported or a Contractor's failure to disclose a conflict of interest as required shall be a basis for default termination of this contract.

21. MERGERS, ACQUISITIONS, NOVATIONS, AND CHANGE-OF-NAME AGREEMENTS

- 21.1. If a Contractor merges, is acquired, or recognizes a successor in interest to Purchaser contracts when Contractor assets are transferred; or, recognizes a change in a Contractor's name; or, executes novation agreements and change-of-name agreements by a Contracting Officer other than the Purchaser's Contracting Authority named in Article 41 of these Contract Special Provisions, the Contractor must notify the Purchaser's Contracting Authority at least thirty (30) days in advance and provide a copy of the novation or other any other agreement that changes the status of the Contractor for signature by the Purchaser. Any successor must be in full compliance with all terms and conditions of this contract.

22. INSPECTION OF SERVICES – FIRM-FIXED PRICE

- 22.1. Services, as used in this Article, includes services performed, workmanship, and material furnished or utilized in the performance of services.
- 22.2. The Contractor shall provide and maintain an inspection system acceptable to the Purchaser covering the services under this contract. Complete records of all inspection work performed by the Contractor shall be maintained and made available to the Purchaser during contract performance and for as long afterwards as the contract requires.
- 22.3. The Purchaser has the right to inspect and test all services called for by the contract, to the extent practicable at all times and places during the term of the contract. The Purchaser shall perform inspections and tests in a manner that will not unduly delay the work.
- 22.4. If the Purchaser performs inspections or tests on the premises of the Contractor or a subcontractor, the Contractor shall furnish, and shall require subcontractors to furnish, at no increase in contract price, all reasonable facilities and assistance for the safe and convenient performance of these duties. As far as is practicable such specific inspections shall be notified to the Contractor in writing in advance of such inspection.
- 22.5. If any of the services do not conform with the contract requirements, the Purchaser may require the Contractor to perform the services again in conformity with contract requirements, at no increase in contract amount. When the defects in services cannot be corrected by re-performance, the Purchaser may (1) require the Contractor to take necessary action to ensure that future performance conforms to contract requirements and (2) reduce the contract price to reflect the reduced value of the services performed.
- 22.6. If the Contractor fails to promptly perform the services again or to take the necessary action to ensure future performance in conformity with contract requirements, the Purchaser may (1) by contract or otherwise, perform the services and charge to the Contractor any cost incurred by the Purchaser that is directly related to the performance of such service or (2) terminate the contract for default.
- 22.7. The services to be provided by the Contractor's personnel under this Contract shall conform to the highest professional standards and practices typical in its industry. Inspection of the services provided will be made by the Purchaser's Project Manager or assigned Technical Representative.

Services performed by the Contractor which do not conform to the highest professional and industry standards may result in the Purchaser requesting that such work be performed again at no increase in the price of the Contract. Repeated instances of work performed which fails to meet the standards and practices may result in termination of the Contract for Default.

23. SUPPLY OF CONTRACTOR DELIVERABLES AND QUALITY ASSURANCE

23.1. The Contractor shall:

- 23.1.1. provide the Contractor Deliverables to the Purchaser, in accordance with the SSS and the SOW (including any standards or processes specified therein).
- 23.1.2. allocate sufficient resources to the provision of the Contractor Deliverables to enable it to comply with the obligations in the SSS and SOW.

23.2. The Contractor shall:

- 23.2.1. comply with any applicable quality assurance requirements specified in SOW Section 6 in providing the Contractor Deliverables;
- 23.2.2. comply with all applicable Law and Legislation;
- 23.2.3. discharge its obligations under the Contract with all due skill, care, diligence and operating practice by appropriately experienced, qualified and trained personnel.

23.3. The provisions of Article 23.2 shall survive any performance, acceptance or payment pursuant to the Contract and shall extend to any remedial services provided by the Contractor.

24. KEY PERSONNEL

24.1. The designated Contractor personnel fulfilling the roles described in the SOW are considered Key Personnel for successful Contract performance and are subject to the provisions of this Article as set forth in the following paragraphs.

24.2. The following personnel are considered Key Personnel for successful contract performance and is subject to the provisions of this Article as set forth in the following table:

Role	Name
Project Manager (PM)	To be completed based on proposal
Technical Lead (TL)	To be completed based on proposal
Quality Assurance Representative (QAR)	To be completed based on proposal
Integrated Product Support Manager (IPSM)	To be completed based on proposal

24.3. Under the terms of this Article, Key Personnel may not be voluntarily diverted by the Contractor to perform work outside the Contract unless approved by the Purchaser. In cases where the Contractor has no control over the individual's non-availability (e.g. resignation, sickness, incapacity, etc.), the Contractor shall notify the Purchaser immediately of a change of Key Personnel and offer a substitute with equivalent qualifications at no additional costs to the Purchaser within 21 days of the date of knowledge of the prospective vacancy.

24.4. The Contractor shall take all reasonable steps to avoid changes to Key Personnel assigned to this project except where changes are unavoidable or are of a temporary nature. Any replacement personnel shall be of a similar grade, standard and experience as the individual to be substituted and must meet the minimum qualifications and required skills cited in the attached SOW.

24.5. In the event of a substitution of any Key Personnel listed above and prior to commencement of performance, the Contractor shall provide a CV for the personnel proposed. The CV shall clearly stipulate full details of professional and educational background, and evidence that the personnel is qualified in pertinent Contract related areas prescribed in the SOW.

24.6. The Purchaser reserves the right to interview any Contractor personnel proposed in substitution of previously employed Contractor Key Personnel to verify their language skills, experience and qualifications, and to assess technical compliance with the requirements set forth in the SOW.

24.7. The interview, if required, may be conducted as a telephone interview, or may be carried out at the Purchaser's premises in Brussels, Belgium.

24.8. If, as a result of the evaluation of the CV and/or interview the Purchaser judges that the proposed replacement Key Personnel does not meet the

required skills levels, he/she shall have the right to request the Contractor to offer another qualified individual in lieu thereof.

24.9. All costs to the Contractor associated with the interview(s) shall be borne by the Contractor, independently from the outcome of the Purchaser's evaluation.

24.10. The Purchaser Contracting Authority will confirm any consent given to a substitution in writing through an Amendment to the Contract stating the effective date of change of personnel and only such written consent shall be deemed as valid evidence of Purchaser consent. Each of the replacement personnel will also be required to sign the Non-Disclosure Declaration at Annex A hereto prior to commencement of work.

24.11. Furthermore, even after acceptance of Contractor personnel on the basis of his/her CV and/or interview, the Purchaser reserves the right to reject Contractor personnel, if the individual is not meeting the required level of competence. The Purchaser will inform the Contractor, in writing, in cases where such a decision is taken and the Contractor shall propose and make other personnel available within ten (10) working days after the written notification. The Purchaser shall have no obligation to justify the grounds of its decision and the Purchaser's acceptance of Contractor personnel shall in no way relieve the Contractor of his responsibility to achieve the Contractual and technical requirements of this Contract nor imply any responsibility of the Purchaser.

24.12. The Purchaser may, for just cause, require the Contractor to remove his employee. Notice for removal will be given to the Contractor by the Purchaser in writing and will state the cause justifying the removal. The notice will either demand substitution for the individual involved and/or contain a notice of default and the remedies to be sought by the Purchaser.

24.13. In those cases where, in the judgment of the Purchaser, the inability of the Contractor to provide a suitable replacement in accordance with the terms of this Article may potentially endanger the progress under the Contract, the Purchaser shall have the right to terminate the Contract as provided under Article 39 "Termination for Default" of Part III - General Provisions.

25. INDEPENDENT CONTRACTOR

25.1. The Personnel provided by the Contractor in response to this Contract are at all times employees of the Contractor and not the Purchaser. In no case shall Contractor personnel act on behalf of or as an agent for NATO or any

of its bodies. In no way shall the Contractor personnel claim directly or indirectly to represent NATO in an official capacity or claim themselves to be NATO employees.

- 25.2. The Purchaser shall not be responsible for securing work permits, lodging, leases nor tax declarations, driving permits, etc., with national or local authorities. Contractor's personnel employed under this Contract are not eligible for any diplomatic privileges or for NATO employee benefits.
- 25.3. The Contractor is responsible for providing the necessary insurance for his personnel and equipment as needed in the area of operations and for performing the contract.

26. RESPONSIBILITY FOR SUPPLIES

- 26.1. Title to supplies furnished under this contract shall pass to the Purchaser upon formal Provisional Site Acceptance (PSA) and payment, regardless of when or where the Purchaser takes physical possession, unless the contract specifically provides for earlier passage of title.
- 26.2. Unless the contract specifically provides otherwise, risk of loss of or damage to supplies shall remain with the Contractor until, and shall pass to the Purchaser upon:
 - 26.2.1. Delivery of the supplies to a carrier, if transportation is F.O.B. origin; or
 - 26.2.2. Acceptance by the Purchaser or delivery of the supplies to the Purchaser at the destination specified in the contract, whichever is later, if transportation is f.o.b. destination.
- 26.3. Article 29.1 above shall not apply to supplies that so fail to conform to contract requirements as to give a right of rejection. The risk of loss of or damage to such nonconforming supplies remains with the Contractor until cure or PSA.
- 26.4. After cure or PSA, Article 26.1 above shall apply.

27. OWNERSHIP AND TITLE

- 27.1. Upon Notification of Full Site Acceptance (FSA), the Title and Risk of Loss to all delivered/installed equipment, software, and documentation shall

transfer to and vest with the Purchaser, except where such software is otherwise under license to the Purchaser. In such cases, the software license shall be transferred to the Purchaser. Until FSA the Contractor shall be responsible for the equipment on site.

28. ENVIRONMENTAL REQUIREMENTS

28.1. The Contractor shall in all its operations to perform the Contract, to the maximum extent possible, adopt a sound proactive environmental approach that identifies, considers, and where possible, mitigates the environmental impacts of its supply chain. If requested by the Purchaser, the Contractor shall provide evidence of so doing in the monthly Project Status Report.

29. DISRUPTION

29.1. The Contractor shall take reasonable care to ensure that in the performance of its obligations under this Contract it does not disrupt the operations of the Purchaser, its employees or any other contractor employed by the Purchaser.

30. THIRD PARTY CO-OPERATION

30.1. Subject to its other obligations under this Contract, the Contractor shall be open, co-operative and provide reasonable assistance to any third party supplier providing services to the Purchaser or to any third party to whom the Purchaser sub-contracts or delegates (or tasks to act in pursuance of) any of its rights and obligations under this Contract (each such third party being a "Purchaser Third Party". This assistance shall include:

30.1.1. providing such information about the manner in which the Contractor Deliverables are provided as is reasonably necessary for Purchaser Third Parties to provide their services and deliverables to the Purchaser or carry out such activities as have been delegated to them by the Purchaser;

30.1.2. making available to, or accepting information from, Purchaser Third Parties (including, where appropriate and agreed with the Purchaser, through the development of interfaces or information exchanges between the Contractor and Purchaser Third Parties);

- 30.1.3. using its reasonable endeavours to prevent, resolve and limit the impact on the Purchaser of any disputes or disagreements between it and any Purchaser Third Parties; and
 - 30.1.4. meeting with the Purchaser and Purchaser Third Parties to discuss the Contractor Deliverables and the services and deliverables provided by third parties.
- 30.2. Without limiting the Contractor's obligations, the Contractor shall inform the Purchaser of any disputes or disagreements between it and any of Purchaser Third Parties that may affect the provision of the Contractor Deliverables.

31. INSPECTION AND ACCEPTANCE OF WORK

- 31.1. This Article supplements Article 21 "Inspection and Acceptance of Work" of Part III – The General Provisions.
- 31.2. Should the Purchaser give the Contractor the opportunity, at the Contractor's expense, to carry out remedial services as is necessary to correct the Contractor's failure or otherwise to rectify any breach, these remedial services shall be completed within Purchaser-specified time limits.
- 31.3. The services to be provided by the Contractor's personnel under this Contract shall conform to the highest professional and industry standards and practices. Inspection of the services provided will be made by the Purchaser's Technical representatives or another authorised designee in accordance with the specifications in Part IV - SOW. Services performed by the Contractor which do not conform to the highest professional and industry standards may result in the Purchaser requesting that such work be performed again at no increase in the price of the contract. Repeated instances of work performed which fails to meet the standards and practices may result in termination of the Contract for Default.
- 31.4. This Article 31 of the Special Provisions and Article 21 of the General Provisions shall also apply to any remedial services carried out by the Contractor.
- 31.5. The Purchaser's rights and remedies under the Article 31 of the Special Provisions and Article 21 of the General Provisions are in addition to its rights and remedies under this Contract.

32. INVOICES AND PAYMENT

- 32.1. This Article augments Article 25 "Invoices and Payment" of Part III - The General Provisions.
- 32.2. Following Purchaser acceptance, in writing, payment for supplies and services furnished shall be made in the currency specified for the relevant portion of the Contract. Invoices shall be accompanied by a copy of the letter of acceptance issued by the Purchaser. It shall be the responsibility of the Contractor to ensure such letter is provided.
- 32.3. The term of the Contract may not be exceeded without prior approval of the Purchaser. In no case will the Purchaser make payment above the total of the corresponding CLINs.
- 32.4. No payment will be made if CLIN items agreed for delivery before milestones are not complete as described in bidding sheets, SSS and SOW.
- 32.5. No payment shall be made with respect to undelivered supplies; works not performed, services not rendered and/or incorrectly submitted invoices.
- 32.6. No payment will be made for additional items delivered that are not specified in the contractual document.
- 32.7. The invoice amount is exclusive of VAT and exclusive of all Taxes and Duties as per Article 26 Taxes and Duties, Part III – The General Provisions.
- 32.8. CLINs will be paid as below based on Purchaser milestone approval in writing.
- 32.9. The Purchaser is released from paying any interest resulting from any reason whatsoever.
- 32.10. The Purchaser shall not bear any liability related to financial guarantees, which the Contractor is required to provide under this Contract.
- 32.11. The Contractor shall render all invoices in a manner, which shall provide a clear reference to the Contract. Invoices in respect of any service and/or deliverable shall be prepared and submitted as specified hereafter and shall contain:
 - 32.11.1. Contract number
 - 32.11.2. Purchase Order number,

32.11.3. Contract Amendment number (if any)

32.11.4. CLINs as they are defined in the priced SSS.

32.11.5. Bank Account details for International wire transfers

32.12. The invoice shall contain the following certificate:

"I certify that the above invoice is true and correct, that the delivery of the above described items has been duly effected and/or that the above mentioned services have been rendered and the payment therefore has not been received."

The certificate shall be signed by a duly authorised company official on the designated original.

32.13. Invoices shall be submitted to:

NATO Communications and Information Agency
Finance, Accounting & Operations
Batiment Z
Av du Bourget 140
B-1140 Belgium

OR

Shall be addressed to Financial Management at the following electronic address: accountspayable@ncia.nato.int

AND

An electronic copy of the invoice shall be sent to the Purchaser's Contracting Authority, at the email address specified in the Article 41 of the Contract Special Provisions.

32.14. NCI Agency will make payment within 45 days of receipt by NCI Agency of a properly prepared and documented invoice.

32.15. The approval for payment of a valid and undisputed invoice by the Purchaser shall not be construed as acceptance by the Purchaser of the performance of the Contractor's obligations nor as a waiver of its rights and remedies under this Contract.

32.16. The Contractor shall be entitled to submit invoices for accepted milestones as follows:

Number	Description	Percentage of Total Contract CLIN Price	Delivery NLT (Not Later Than)
Milestone	ALL PAYMENTS SHALL BE MADE UPON PURCHASER WRITTEN ACCEPTANCE		
M1	Critical Design Review (CDR)	20%	EDC + 10 Weeks
M2	Provisional Site Acceptance (PSA) NODCERS	5%	EDC + 20 Weeks
M3	Provisional Site Acceptance (PSA) Mons	5%	EDC + 25 Weeks
M4	Provisional Site Acceptance (PSA) Tier-3 Sites	5%	EDC + 44 Weeks
M5	Integrated Product Support (IPS)	15%	EDC + 44 Weeks
M6	Full Site Acceptance (FSA)	40%	EDC + 48 Weeks
M7	Warranties	10%	EDC + 100 Weeks

33. COMMERCIAL COMPUTER SOFTWARE LICENSE

33.1. Notwithstanding any contrary provisions contained in the Contractor's standard commercial license or lease agreement, the Contractor agrees that the Purchaser will have the rights that are set forth in Articles of this Article to use, duplicate or disclose any commercial computer software delivered under this contract.

33.2. The commercial computer software delivered under this contract may not be used, reproduced, or disclosed by the Purchaser except as provided in the Articles below of this Article or as expressly stated otherwise in this contract.

33.2.1. The commercial computer software may be:

33.2.1.1. Used or copied for use with the computer(s) for which it was acquired, including use at any installation detailed in the SOW to which the computer(s) may be transferred;

- 33.2.1.2. Used or copied for use with a backup computer if any computer for which it was acquired is inoperative;
 - 33.2.1.3. Reproduced for safekeeping (archives) or backup purposes;
 - 33.2.1.4. Modified, adapted, or combined with other computer software, provided that the modified, adapted, or combined portions of the derivative software incorporating any of the delivered, commercial computer software shall be subject to same restrictions set forth in this contract;
 - 33.2.1.5. Disclosed to and reproduced for use by support service Contractors or their subcontractors, subject to the same restrictions set forth in this contract; and
 - 33.2.1.6. Used or copied for use with a replacement computer.
- 33.3. If the commercial computer software is otherwise available without disclosure restrictions, the Contractor licenses it to the Purchaser without disclosure restrictions.

34. ACCESS TO PURCHASER'S PREMISES

- 34.1. The Contractor acknowledges that Purchaser premises to which it shall provide the Contractor Deliverables vary in physical size, occupancy levels and types.
- 34.2. The Contractor shall observe, and ensure that the Contractor's Team and Subcontractors observe, all health and safety rules and regulations and any other security requirements that apply at any of Purchaser's premises, including any the Purchaser policies and processes which may be communicated by the Purchaser to the Contractor.

35. CARE AND DILIGENCE OF PROPERTY – RISK OF LOSS

- 35.1. The Contractor shall use reasonable care to avoid damaging building, equipment, and vegetation (such as trees, shrub and grass) on the work site.
- 35.2. If the Contractor damages any such building or equipment, he shall repair the damage as directed by the Purchaser and at no expenses to the

Purchaser. If he fails or refuses to make such repair or replacement, the Contractor shall be liable for the cost thereof, which may be deducted from the Contract price.

- 35.3. The Purchaser shall exercise due care and diligence for Contractor's and Purchaser's equipment, tools and materials at each site supplied and/or used for the performance of this Contract. Notwithstanding anything to the contrary herein contained in this Contract, the Purchaser will not assume any liability for damages occurring to or occasioned by said equipment, tools and materials except for (i) gross negligence or wilful misconduct of the Purchaser or his servants, agents or subcontractors or (ii) loss due to events covered under Article 39 "Termination for Default" of Part III – The General Provisions.

36. RESPONSIBILITY OF THE CONTRACTOR TO INFORM EMPLOYEES OF WORK ENVIRONMENT

- 36.1. The Contractor shall inform his employees under this Contract of the terms of the Contract and the conditions of the working environment.
- 36.2. Specifically, personnel shall be made aware of all risks associated with the performance under this Contract, the conditions of site in which the performance is to take place and living conditions while performing within the boundaries of the Contract. The selection of adequate personnel shall remain sole responsibility of the Contractor.

37. WARRANTY OF SERVICES

- 37.1. Acceptance, as used in this Article, means the act of an authorized representative of the Purchaser by which the Purchaser assumes for itself, or as an agent of another, ownership of existing and identified supplies, or approves specific services, as partial or complete performance of the contract.
- 37.2. Notwithstanding inspection and acceptance by the Purchaser or any provision concerning the conclusiveness thereof, the Contractor warrants that all services performed under this contract will, at the time of acceptance, be free from defects in workmanship and conform to the requirements of this contract. The Purchaser shall give written notice of any defect or nonconformance to the Contractor within 30 days from the date of acceptance by the Purchaser; or other specified event whose occurrence will terminate the period of notice, or combination of any

applicable events or period of time. This notice shall state either (1) that the Contractor shall correct or re-perform any defective or nonconforming services, or (2) that the Purchaser does not require correction or re-performance.

- 37.3. If the Contractor is required to correct or re-perform, it shall be at no cost to the Purchaser, and any services corrected or re-performed by the Contractor shall be subject to this Article to the same extent as work initially performed. If the Contractor fails or refuses to correct or re-perform, the Purchaser's Contracting Authority may, by contract, otherwise, correct, or replace with similar services and charge to the Contractor the cost occasioned to the Purchaser thereby, or make an equitable adjustment in the contract price.
- 37.4. If the Purchaser does not require correction or re-performance, the CO shall make an equitable adjustment in the contract price.

38. LIQUIDATED DAMAGES

- 38.1. This Article supplements Article 38 "Liquidated Damages" of Part III - The General Provisions.
- 38.2. The amount of Liquidated Damages due by the Contractor shall be recovered by the Purchaser in the following order of priority:
- a. By deducting such damages from the amounts due to the Contractor against the Contractor's invoices.
 - b. By proceeding against any surety or deducting from the Performance Guarantee, if any
 - c. By reclaiming such damages through appropriate legal remedies.
- 38.3. The rights and remedies of the Purchaser under this Article are in addition to any other rights and remedies provided by law or under this Contract.

39. CONSEQUENCES OF TERMINATION OR EXPIRY

- 39.1. This Article supplements Article 39 "Termination for Default" of Part III - The General Provisions and Article 40 "Termination for Convenience" of Part III – The General Provisions.

39.2. Definitions. As used in this Article:

39.3. Purchaser Data means all data or records of whatever nature and in whatever form relating to the Purchaser or the operations of the Purchaser and in the possession or control of the Contractor, whether subsisting before the date of this Contract or as created or processed as part of, or in connection with, the Deliverables.

39.4. In addition to other rights in this Contract, following termination or expiry of this Contract for whatever reason:

39.4.1. unless otherwise agreed between the Parties, the Contractor shall at no additional cost to the Purchaser:

39.4.1.1. return all Purchaser Furnished Property (PFP); and

39.4.1.2. at the Purchaser's discretion, destroy or return any copies of Purchaser Data and any other confidential information of the Purchaser, provided that the Contractor may retain one copy of such information to the extent it is required to do so by law (and to the extent that the Contractor does so, the provisions of Article 16 shall survive termination or expiry of this Contract and shall continue to apply to that copy).

39.4.2. the Parties shall comply with their respective exit plan as detailed in the SOW and the Project Implementation Plan (PIP).

40. TECHNICAL DIRECTION

40.1. The Contract will be administered by the NATO CI Agency in accordance with Article 41 of these Contract Special Provisions entitled "Contract Administration".

40.2. The individuals working on this Contract shall perform the effort within the general scope of work identified in the Contract Part IV - SOW. This effort will be directed on a more detailed level by the Purchaser's Project Manager who will provide detailed tasking and instruction on how to proceed.

40.3. The Purchaser reserves its right to assign a Technical Representative who will provide the Contractor personnel with instruction and guidance, within the general scope of work, in performance of their duties and working schedule.

- 40.4. Neither the Purchaser's Project Manager, as identified in Article 41 of these Contract Special Provisions, nor any Technical Representative has the authority to change the terms and conditions of the Contract. If the Contractor has reason to believe that the Project Manager/Technical Representative is requesting effort on terms inconsistent with that in the scope of the Contract, the Contractor shall immediately inform the Purchaser's Contracting Authority for confirmation of the actions. Failure to obtain confirmation that the action of the Project Manager is outside of the authority of the Contract shall render any subsequent claim null and void.
- 40.5. Upon receipt of such notification above, the Purchaser's Contracting Authority will:
- a. confirm the effort requested is within scope, or;
 - b. confirm that the instructions received constitute a change and request a quotation for a modification of scope and/or price, or;
 - c. rescind the instructions.
- 40.6. Failure of the Contractor to notify the Purchaser of direction constituting change of the Contract will result in a waiver of any claims pursuant to such change.

41. CONTRACT ADMINISTRATION

- 41.1. The Purchaser reserves the right to re-assign this contract to a representative(s) for administrative purposes, in whole or in part, provided that the Purchaser shall always be responsible for his obligations under the contract and for actions or lack of actions of its assigned administrator. The Purchaser undertakes to advise the Contractor in writing whenever this right is to be exercised.
- 41.2. The Purchaser is the NATO Communications and Information Agency (NCI Agency). The NCI Agency is the Point of Contact for all Contractual and Technical issues. The Contractor shall accept Contract modifications only in writing from the Purchaser's Contracting Authority.
- 41.3. All notices and communications between the Contractor and the Purchaser shall be written and conducted in English. Contract modifications only become valid when received in writing from the General Manager, NCI AGENCY, or his authorized representative.

- 41.4. Formal letters and communications shall be personally delivered or sent by e-mail, mail, registered mail, courier or other delivery service, to the official points of contact quoted in this Contract. Telefax or other electronic means may be used to provide an advance copy of a formal letter or notice which shall subsequently be delivered through the formal communications means.
- 41.5. Informal notices and informal communications may be exchanged by any other communications means including telephone and e-mail.
- 41.6. All notices and communications shall be effective upon receipt.
- 41.7. Official Points of Contact are:

PURCHASER

Contractual issues:

NCI Agency
Acquisition Directorate
Building 302-A, Room 110
B-7010 SHAPE, Mons
Belgium

POC: Mr Edel Esparza
Tel: +32 (0) 6544 1476
E-mail: Edel.Esparza@ncia.nato.int

Technical issues:

NCI Agency
NATO Cyber Security Centre
Oude Waalsdorperweg 61
2597 AK The Hague
Netherlands

POC: Mr Miles Knight
Tel: +31 70 374 3527
E-mail: Miles.Knight@ncia.nato.int

CONTRACTOR

Contractual issues: TBD

Company Name
Address

POC:

Tel:

Email:

Technical issues: TBD

Company Name
Address

POC:

Tel:

Email:

42. LIMITATIONS ON THE USE OR DISCLOSURE OF THIRD-PARTY CONTRACTOR REPORTED CYBER INCIDENT INFORMATION

- 42.1. Definitions. As used in this Article:

- 42.1.1. Compromise means disclosure of information to unauthorized persons, or a violation of the security policy of a system, in which unauthorized intentional or unintentional disclosure, modification, destruction, or loss of an object, or the copying of information to unauthorized Media may have occurred.
- 42.1.2. Controlled Technical Information means Technical Information with NATO military application that is subject to controls on the access, use, reproduction, modification, performance, display, release, disclosure, or dissemination. The term does not include information that is lawfully publicly available without restrictions.
- 42.1.3. Covered defense information means unclassified Controlled Technical Information and is:
 - 42.1.3.1. Marked or otherwise identified in the contract, task order, or delivery order and provided to the contractor by or on behalf of the NCI Agency in support of the performance of the contract; or,
 - 42.1.3.2. Collected, developed, received, transmitted, used, or stored by or on behalf of the contractor in support of the performance of the contract.
- 42.1.4. Cyber incident means actions taken through the use of computer networks that result in a compromise or an actual or potentially adverse effect on an information system and/or the information residing therein.
- 42.1.5. Information system means a discrete set of information resources organized for the collection, processing, maintenance, use, sharing, dissemination, or disposition of information.
- 42.1.6. Media means physical devices or writing surfaces including, but is not limited to, magnetic tapes, optical disks, magnetic disks, large-scale integration memory chips, and printouts onto which covered defense information is recorded, stored, or printed within a covered contractor information system.
- 42.1.7. Technical Information means technical data or computer software such as research and engineering data, engineering drawings, and associated lists, specifications, standards, process sheets, manuals, technical reports, technical orders, catalog-item identifications, data sets, studies and analyses and related information, and computer software executable code and source code.

42.2. Restrictions

42.2.1. The Contractor agrees that the following conditions apply to any information it receives or creates in the performance of this contract that is information obtained from a third party's reporting of a cyber-incident:

42.2.1.1. The Contractor shall access and use the information only for furnishing advice or technical assistance directly to the Purchaser in support of the Purchaser's activities, and shall not be used for any other purpose.

42.2.1.2. The Contractor shall protect the information against unauthorized release or disclosure.

42.2.1.3. The Contractor shall ensure that its employees are subject to use and non-disclosure obligations consistent with this Article prior to the employees being provided access to or use of the information.

42.2.1.4. The third-party contractor that reported the cyber incident is a third-party beneficiary of the non-disclosure agreement between the Purchaser and Contractor.

42.2.1.5. A breach of these obligations or restrictions may subject the Contractor to:

42.2.1.5.1. Criminal, civil, administrative, and contractual actions in law and equity for penalties, damages, and other appropriate remedies; and

42.2.1.5.2. Civil actions for damages and other appropriate remedies by the third party that reported the cyber incident, as a third party beneficiary of this Article.

43. REACH CAPABILITY

43.1. The purpose of this Article is to define the conditions under which specific Purchaser provided NROI capability (newly called REACH) is made available to the Contractor in the course of this Contract.

- 43.2. The provision of the REACH capability is governed by the standard Article 13 Purchaser Furnished Property, Part III - General Provisions, Article 44 of the Special Provisions and Annex B to the Special Provisions.
- 43.3. Should the Purchaser not be able to meet the SLA related to the provision of the REACH capability as laid down in Annex B of these Special Provisions, the Contractor shall not be entitled to claim an excusable delay nor any compensation against any Articles for the Performance of this Contract and its Amendments.

44. PERFORMANCE GUARANTEE

- 44.1. This Article replaced Article 8 "Performance Guarantee" of Part III - The General Provisions.
- 44.2. No Performance Guarantee shall be required from the Contractor for this Contract.



ANNEX A: NATO CI AGENCY NON-DISCLOSURE DECLARATION

We, the undersigned(Company) duly represented by the named individual below (hereinafter "Contractor") do hereby certify that we shall ensure that the following conditions be accepted and observed by all (Contractor) employees working under CO-115511-UOMM-3.

Date	Full name (in block capitals)	Signature
------	-------------------------------	-----------

TO BE SIGNED BY THE CONTRACTOR'S EMPLOYEES WORKING IN THE NATO'S PREMISES UPON COMMENCEMENT OF THEIR WORK.

I UNDERSTAND:

That I must preserve the security of all classified /commercial-in-confidence information which comes to my knowledge as a result of this contract with NATO and that I undertake to comply with all relevant security regulations.

That I must not divulge to any unauthorized person, any classified/commercial-in confidence information gained by me as a result of my contract with NATO, unless prior permission for such disclosure has been granted by the General Manager of the NCI Agency or by his designated representative.

That I must not, without the approval of the General Manager of the NCI Agency, publish (in any document, article, book, CD, video, film, play, or other form) any classified /commercial-in-confidence information which I have acquired in the course of my work under CO-115511-UOMM.

That, at the end of contract and after performance of all required tasks, I must surrender any official document or material made or acquired by me in the course of my work under CO-115511-UOMM, save such as I have been duly authorized to retain.

That the provisions of the above Declaration apply not only during the period of work under CO-115511-UOMM, but also after my contract has ceased and that I am liable to prosecution if either by intent or negligence I allow classified/commercial-in-confidence information to pass into unauthorized hands.

ANNEX B: SERVICE LEVEL AGREEMENT (SLA) FOR THE PROVISION OF REACH LAPTOPS IN ACCORDANCE WITH ARTICLE 43 OF THE CONTRACT SPECIAL PROVISIONS

Introduction

To improve collaboration within the Contractor team and with the Purchaser team, a seamless exchange of data and information has been seen essential, a collaborative environment for the two teams will be established that will provide the ability to process, store and handle information up to and including NATO RESTRICTED. Access to the collaborative environment is provided to the Contractor's Team via the Purchaser REACH capability. The REACH capability will be complemented by a limited access to Purchaser Project Portal.

Reference Documents

N/A

Parties

The REACH capability will be provided by the Purchaser to support the Contractor Team under Contract No CO-115511-UOMM.

General Overview

This is an agreement between the Purchaser and the Contractor under this Contract to establish the:

- Provision of REACH capability for the Contractor Team;
- General levels of response, availability, and maintenance associated with the REACH capability;
- Respective responsibilities of the Purchaser and the Contractor Team.

These provisions shall be in effect for an initial period of three years from the effective date of the Contract or until the end of Contract No CO-115511-UOMM, whichever occurs first. It can be extended based on a mutual agreement between the Parties.

Provided Capability

References

NCIA BLST Services Catalogue specifies in chapter 6.1 the Managed Desktop/Laptop Service and the definitions for such capability. The REACH capability refers to the BLST Managed Desktop/Laptop Service and offers:

- REACH enabled Laptop including Microsoft Office 2010 Professional and the associated collaboration toolset (E-mail, Instant Messaging, Live meeting and Presence Awareness),
- Access to the collaborative environment of the project,
- Access to the collaborative environment of the REACH community with the capability to communicate, store, and process information up to and including NATO RESTRICTED,
- Remote Access at NR level via the NCIA REACH capability,
- Support through NCIA Service Desk,
- The following software and tools are provided through the REACH capability:
 - a. Microsoft Windows 7
 - b. Microsoft Office 2010 Professional
 - c. Microsoft Live Meeting 2007
 - d. McAfee Anti-Virus protection
 - e. Cisco AnyConnect VPN Client
 - f. NCIA NR01 v3 Reach Compliance Check application
 - g. Microsoft Office Communicator
 - h. IronKey Removable Storage Device
 - i. Aladdin PKI e-Token
 - j. NATO NPKIv2 user certificate
 - k. Microsoft Visio
 - l. Microsoft Project

The Purchaser accepts no liability and provides no warranty in respect of the third party software mentioned above. It is emphasized that the REACHs can only be used by the Contractor's Team within the limits set out in this project description.

Scope

- The support level is specified as minimum Level 2 as defined in the BLST Services Catalogue chapter 2.2.

- The availability of the REACH capability is 24/7 – the time to resolve issues is 24h during business weeks.
- The start of the delivery of the REACH capability is in accordance with Section 4.7 of the SOW.

Aim

The REACH capability enables exchanges of information and collaboration up to and including NATO Restricted classification.

Limitations

- The use of the REACH capability requires a NATO Security clearance at NATO SECRET level. Proof of the users' security clearances will be provided to the Purchaser.
- The exchange and collaboration of information is provided through e-mail and Instant Messaging.
- Direct printing capability is not provided, but can be arranged through an extension of this contract requested by the Contractor's Team.
- In case of any problems which cannot be solved remotely from the service desk (The Hague, NLD), the equipment shall be sent to NCIA, The Hague at the Contractor's expenses. Any damages resulting from inappropriate operation or operation in harsh environment or adverse weather conditions, as well as a loss of the system shall be compensated by the Contractor.
- A maximum of two users can be configured to share one REACH laptop capability.

Assumptions

The following assumptions apply to this Agreement:

- Any support provided by Purchaser is clearly documented through this Agreement and the Managed Desktop/Laptop service description (ref. [1] chapter 6.1).
- The REACH capability will be provided in accordance with the BLST Service Catalogue conditions (ref. [1] chapter 2 and chapter 4).
- Security violations of the non-NCIA REACH users are investigated through their local security officers/managers applying NATO rules (CM(2002)49, NCIA (CapDev)AD3-2, and NCIA(CapDev)NR SECOPS).

- Required changes to this Agreement and/or the provision of the REACH capability will be jointly assessed and the implementation agreed between the Parties. The implementation of changes may have an impact on the charges which will be handled through an update of this Agreement.
- Management and scheduling of all NCIA activities related to the provision of the REACH capability will be conducted in accordance with the service Agreement [ref 1]

Standards and Quality

The Purchaser applies PRINCE 2 methodology for project management and ITIL best practices for service management.

Roles and Responsibilities

The roles and responsibilities for the provision of the REACH capability are defined in the referenced Service Description, but summarized also herein:

- Contractor Team will receive up to five (5) REACH terminals.
- The Purchaser will provide the REACH capability and related services.

Points of contact

Organisation	Name, Position and Role	Address and Contact Information
NCIA	Pierre Pradier, Service Owner	Phone +32 65 44 6297 email: Pierre.Pradier@ncia.nato.int
	Antonio Galiero, Service Area Owner / Service Delivery Manager	Phone +32 65 44 8026 email: Antonio.Galiero@ncia.nato.int

Purchaser's responsibilities

The Purchaser will:

- Provide the REACH capability including basic end-user training (1.5-hour duration) and deliver 1 Initial REACH, 2 Additional REACHs.
- Set up and maintain the project web-portal at NR level,
- Provide introduction to the management of the portal (1-2 hours) and service desk for the portal on-site at NCIA, The Hague or through electronic media (phone or MS LYNC),
- Grant temporary use of REACH hardware and the software licences for the contracted period,
- Meet the response times associated with the priority assigned to incidents and change requests as stipulated in the Service Catalogue.
- Notify the Contractor Team about all scheduled maintenance through email,
- Communicate all issues with the Contractor Team,
- Implement the processes defined in this Agreement and in the NCIA BLST Service Catalogue to support the REACH capability.
- Provides backup on portals and shared drives.

Contractor Team Responsibilities

The Contractor Team shall:

- Provide the internet access required for Remote Access via NCIA REACH,
- Be responsible for the backup of files and data of the REACH on NR accredited media on an authorized Removable Storage Device provided by service provider,
- Ensure that Contractor personnel operating the REACH units possess security clearance of a minimum of NS,
- Provides Security clearance for up to and including NS for the personnel using the REACH capability,
- Provides the contact details of the local Security Officer/Manager and the commitment to apply NATO rules as defined in (CM(2002)49, NCIA (CapDev)AD3-2, and NCIA(CapDev)NR SECOPS)for the investigation.

- Return the equipment at the end of the Agreement at its expenses to the Purchaser,
- Not use the equipment for any other purposes than the purpose set out herein,
- Not lend, rent, lease and/or otherwise transfer the equipment to a third party,
- Not copy or reverse engineer the equipment.

Hours of Coverage, Response Times & Escalation

- The service will be available 24/7.
- NCIA Service Desk operates from 07:00 - 19:00 (Mon-Thursday) and 07:00 - 16:30 (Friday) and in accordance with the corresponding SLA of the NCIA Internet Service Provider.

Incidents

Any incidents (Problems/issues) shall be reported either by email to servicedesk@ncia.nato.int or by phone to +31703743320.

1.1.1 Response to Incidents

The Purchaser will assess the incident, identify criticality and respond to the Contractor Team within one business day.

1.1.2 Prioritization

Any prioritization with respect to time and effort for the incidents which cannot be resolved immediately will be discussed with the Contractor Team.

1.1.3 Resolution of disagreements

In case of disagreements, all disputes shall be resolved by consultation between the Parties and shall not be referred to any national or international tribunal or other third party for settlement.

Changes

- For any changes of the REACH capability which will be required to be made during the term of this Agreement, the Purchaser will notify the Contractor CISA Team one week prior to the event and inform about the required consequences.
- Any changes concerning the elements provided by the Contractor Team shall be communicated to the NCIA Service Desk one week prior to the event.

Maintenance

Use of the REACH capability and/or related components require regularly scheduled maintenance (“Maintenance Window”) performed by the Purchaser. These activities will render systems and/or applications unavailable for normal user interaction as published in the maintenance calendar. Users will be informed of the maintenance activities with sufficient notice.

RFQ-CO-115511-UOMM

**URGENT OBSOLESCENCE MANAGEMENT – MITIGATION (UOMM) FOR
CIS SECURITY SERVICES**

**NETWORK INTRUSION DETECTION/PREVENTION SYSTEMS (NIPS) AND
FULL PACKET CAPTURE (FPC)**

(TECHNOLOGY REFRESH)



NATO Communications and Information Agency
Agence OTAN d'information et de communication

BOOK II, PART IV

STATEMENT OF WORK

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SECTION 1 – INTRODUCTION

1.1 Background Information

- 1.1.1 NATO's current Cyber Defense posture is based upon the NATO Computer Incident Response Capability (NCIRC) – Full Operational Capability (FOC). The NCIRC FOC scope was defined in the Strategic Commands' Statement of Operational Requirement (SOR) (reference [NCIRC SOR]). NCIRC FOC is a Cyber Defense capability, deployed in a 'hub-and-spoke' architecture. The NCIRC FOC capability is now subsumed within the NATO Cyber Security Centre (NCSC) portfolio of services.
- 1.1.2 Tier-2 infrastructure is the pillar on which some NCSC services are based for network, security, servers, workstations, and virtualization, and storage, backup and monitoring requirements. It also supports the sum of all capacity and performance requirements of those subsystems.
- 1.1.3 Tier-2 infrastructure includes the following:
 - 1.1.3.1 Network Intrusion Detection/Prevention Systems (NIPS) provide NCSC with the capability to identify potential cyber-attacks on NATO networks and to log information about this malicious activity. The sensors are managed by the Defense Centre Central Management Capability. The NIPS Tier-2 Central Management infrastructure has already been upgraded to the latest version and is therefore not included in the scope of this SOW.
 - 1.1.3.2 Full Packet Capture System (FPC) provides to the NCSC the capability to capture and store locally on the respective Tier-3 sites a record of the network traffic at various critical points, which can then be queried from the central Tier-2 management infrastructure. The FPC Tier-2 infrastructure has already been upgraded to the latest version and is therefore not included in the scope of this SOW.
- 1.1.3.3 Tier-3 infrastructure includes the following:
 - 1.1.3.3.1 Tier-3 Full Packet Capture System (FPC) provides to the NCSC the capability to capture, store and analyse locally on the respective Tier-3 sites a record of the network traffic at various critical points. This data can also be transferred to Tier-2 for further processing.
 - 1.1.3.3.2 Tier-3 Enclave encompasses all infrastructure and hosting components necessary to instantiate the requisite Tier-3 sensors and subsystems, and to facilitate their interaction with Tier-2, and their central management. With the exception of CSO Neuilly-sur-Seine (Paris), Tier-3 Enclaves have been deployed at all defined sites, on all available Security Domains - NATO Unclassified (NU), NATO RESTRICTED (NR) and NATO SECRET (NS).

1.2 Expectations Overview

- 1.2.1 This Statement of Work (SOW) describes requirements the NCI Agency is seeking in the deployment of cyber security equipment to replace equipment and systems that have reached End of Life (EoL) or End of Support (EoS). This project is referred to as Urgent Obsolescence Management Mitigation (UOMM).
- 1.2.2 These systems are part of the existing NCSC services, which are operated centrally at Supreme Headquarters Allied Powers Europe (SHAPE) in Casteau (Mons), Belgium. This includes components deployed both at the NCSC operations base in SHAPE as well as at various NATO sites.
- 1.2.3 The primary objective of this project is to ensure Continuity of Service (CoS) and support by refreshing the existing components of the NCSC capability that have reached EoL. Further work to uplift the architecture of the NCSC capability is anticipated later. As such, this project does not foresee significant redesign of any NCSC capabilities.

1.3 Contract scope

- 1.3.1 Partial refresh of the currently deployed Cisco SourceFire Network Intrusion Prevention System which will include:
- Hardware replacement of sensors and appliances.
 - Change of installation mode from inline to passive connection to the packet broker
 - Implementation services to support deployment and migration activities across the sites detailed below
 - Update of system documentation
- 1.3.2 Full refresh of the currently deployed RSA NetWitness Network System (for full network packet capture) which will include:
- Hardware replacement of all appliances and storage without change to existing system design
 - Implementation services to support deployment and migration activities across the sites detailed below
 - Update of system documentation
- 1.3.3 The Contractor shall be responsible for the totality of the implementation of the schedule, which meets the requirements set forth in this SOW, including overall installation and integration, testing and acceptance throughout the Contract's Period of Performance.
- 1.3.3.1 The schedule must be agreed by the Purchaser sufficiently in time, taking into account constraints on site access and local activities which may conflict, travel limitations and

resources at not only the site specifically but also with the Purchaser in general. The schedule may have to flex and respond to any changing situations.

1.3.4 The deployment of the sites shall be split into three phases as defined as follows:

- Phase 1: NCIRC Operational Deployment Support and Exercise Reference System (NODCERS), Casteau (Mons)
- Phase 2: Deployment of Tier-3 capability in Casteau (Mons)
- Phase 3: Three parallel deployment teams which are segregated as follows:

Team 1	Team 2	Team 3
Norfolk – USA	Lago Patria – ITA	Capellen – LUX
Brunssum – NLD	Izmir – TUR	Betzdorf – LUX
Geilenkirchen – DEU	The Hague – NLD	Northwood – UK
Ramstein – DEU	Poggio Renatico* – ITA	Uedem* – DEU
Neuilly-sur-Seine (Paris) – FRA	La Spezia* – ITA	Hallbergmoos (Munich)* – DEU
Evere (Brussels)* – BEL	Torrejon* – SPA	Bydgoszcz* – POL
Aix en Provence* – FRA	Monsanto* – POR	Stavanger* – NOR

1.3.4.1 The sites listed above are split into two priorities; those marked with an * are to be considered less urgent.

1.3.4.2 The Contractor may propose a deployment schedule which differs from that listed above for those sites considered less urgent. The sites can be moved between teams.

1.3.5 The deployed solution shall fully integrate with the already updated Tier-2 Central Management facility in Casteau (Mons).

1.3.6 The Purchaser may during the period prior to the contract award, or even prior to scheduled Tier-3 deployment, be obligated to independently deploy Tier-3 equipment to any of the sites listed above based upon Operational necessity. In such case, the Contractor shall still be required to attend the site to ensure all aspects of site deployment have been completed appropriately.

1.3.7 The Purchaser shall provide all equipment and spares as Purchaser Furnished Equipment (PFE), and will be responsible for all logistics and Tempest testing of those components deemed necessary.

1.3.8 The Purchaser shall expect the Contractor to evaluate the pre-existing Site Survey Reports, and engage in any activity to re-validate the report content to the extent that the Contractor shall accept full accountability for the detail at each site in advance of deploying the solution.

1.4 Standards for interpretation of the SOW

- 1.4.1 Context information supporting the requirements definition are provided using the term “may”. “Shall” statements are contractually binding; “May” statements are non-mandatory, or they imply intent on the part of the Purchaser.
- 1.4.2 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 the activities the Contractor’s process should cover, i.e. the Contractor’s process description and plans should include where and when these occur.
- 1.4.3 With this SoW, the term "including" is never meant to be limiting.

SECTION 2 – REFERENCES

2.1 NATO Standardization Agreements (STANAGS) and Publications

- 2.1.1 STANAG 2506 – Allied Joint Movement and Transportation doctrine
- 2.1.2 STANAG 4107 Ed. 11, Mutual Acceptance of Government Quality Assurance and Usage of the Allied Quality Assurance Publications (AQAPs) – and underpinning AQAPs;
- 2.1.3 STANAG 4280 - NATO Levels of Packaging;
- 2.1.4 STANAG 4281 Ed. 3 – NATO Standard Marking for Shipment and Storage;
- 2.1.5 STANAG 4427 Ed. 3 - Configuration Management in System Life Cycle Management – and underpinning Allied Configuration Management Publications (ACMPs);
- 2.1.6 STANAG 4728 Ed. 2 – System Life Cycle Management;
- 2.1.7 ALP-10 Ed. 3 – Allied Logistics Publications;
- 2.1.8 STANAG 6001, Language Proficiency Levels.

2.2 NATO Security Documents

- 2.2.1 C-M (2002)49, Security within the North Atlantic Treaty Organization, including COR1 to COR12 dated September 2015.
- 2.2.2 AD 070-001, ACO Security Directive, dated Jan 19
- 2.2.3 NATO Security Committee and NATO C3 Board – Primary Directive on INFOSEC, 6 December 2010.
- 2.2.4 INFOSEC Management Directive for Communication and information Systems (CIS), 19 October 2006
- 2.2.5 NATO Security Committee – Guidelines for the Security Approval or Security Accreditation of CIS, 9 October 2003
- 2.2.6 NATO Security Committee – Guidelines for Security Risk Assessment and Risk Management of CIS, 26 February 2003

- 2.2.7 NATO Security Committee – Guidelines for the Structure and Content of Security Operating Procedures (SecOps) for CIS, 19 October 2006
- 2.2.8 NATO Consultation, Command and Control Board, Directive for the Interconnection of Communication and Information Systems, 23 February 2011
- 2.2.9 NATO – Technical and Implementation Directive on Supply Chain Security for COTS CIS Security Enforcing Products - AC/322-D(2017)0016
- 2.2.10 NCIRC Service Performance Evaluation Gate 6 v2.0

2.3 NCI Agency Policy Documentation

- 2.3.1 Agency Directive AD 06.00.03 Risk Management, latest published version
- 2.3.2 PDED 06.01.03 Govern Risk Management, latest published version
- 2.3.3 SOP for Project Documentation Management
- 2.3.4 Agency Instruction AI 06.04.08 – Comments Collector, version 4.0.x
- 2.3.5 Agency Instruction AI 16.31.03 – Requirements for the Preparation of IPSP
- 2.3.6 Agency Instruction AI 16.31.10 – Spare Parts Modelling
- 2.3.7 Agency Instruction AI 16.31.07 – GD (Guidance Document) for ASD-AIA-ATA S1000D TechPubs
- 2.3.8 Agency Instruction AI 16.31.07 Annex A – S1000D Issue 5.0 Business Rules Decision Point (BRDP) Index
- 2.3.9 Agency Instruction AI 16.31.12 – WSG (Writing Style Guide) for ASD-AIA-ATA S1000D TechPubs
- 2.3.10 Agency Instruction AI 16.31.13 – ISG (Illustration Style Guide) for ASD-AIA-ATA S1000D TechPubs
- 2.3.11 Agency Instruction AI 16.31.04 – Requirements for the preparation of TRNP
- 2.3.12 Agency Instruction AI 16.31.04 Annex A – Training POAP (Plan On A Page)

2.3.13 Agency Instruction AI 16.31.04 Annex B – Training Feedback Form

2.3.14 Agency Instruction AI 16.31.04 Annex C – Training Evaluation Report Form

2.3.15 Agency Instruction AI 16.32.04 – ABL Template

2.3.16 Agency Instruction AI 16.32.05 – PBL Template

2.3.17 Agency Instruction AI 16.32.02 – Preparation of ECP forms

2.3.18 Agency Instruction AI 16.32.02 Annex A – ECP Form

2.3.19 Agency Instruction AI 16.32.03 – Preparation of RFC forms

2.3.20 Agency Instruction AI 16.32.03 Annex A – RFC Form

2.4 International Standards and Specifications

2.4.1 ISO 9001:2015 – Quality Management Systems

2.4.2 ISO 10007 – Configuration Management in Systems Life Cycle Management

2.4.3 ISO 15288:2015 – System and Software Engineering

2.4.4 IEEE Standard 15288.2:2014 – IEEE Standard for Technical Reviews and Audits on Defense Programs

2.4.5 ISO/IEC/IEEE 29119-1:2013 Software and systems engineering – Software testing – Part 1: Concepts and definitions;

2.4.6 ISO/IEC/IEEE 29119-2:2013 Software and systems engineering – Software testing – Part 2: Test processes;

2.4.7 ISO/IEC/IEEE 29119-3:2013 Software and systems engineering – Software testing – Part 3: Test documentation;

2.4.8 ISO/IEC/IEEE 29119-4:2015 Software and systems engineering – Software testing – Part 4: Test techniques;

2.4.9 ISO/IEC 25010-2011, Systems and software engineering – Systems and software Quality Requirements and Evaluation (SQuaRE) – System and software quality models;

2.4.10 IEC 61078:2016 – Reliability Block Diagrams

2.4.11 IEC 60812: 2018 – Failure Modes and Effects Analysis (FMEA and FMECA)

2.4.12 IEC 62550:2017 – Spare Parts provisioning

2.4.13 ASD S1000D Issue 5.0 – International Specification for the Procurement and Production of Technical Publications

2.4.14 ASD S2000M Issue 6.0 – International Specification for Material Management

2.4.15 ASD S3000L Issue 1.1 – International Procedure Specification for Logistic Support Analysis (LSA)

2.4.16 INCOTERMS 2020 – International Chamber of Commerce: International Commercial Terms.

2.5 MIL Standards and Handbooks

2.5.1 MIL-STD-882E – Systems Safety

2.5.2 MIL-HDBK-338B – Electronic Reliability Design Handbook

2.5.3 MIL-HDBK-470A – Designing and Developing Maintainable Products and Systems

2.5.4 MIL-STD-1629A – Procedures for Performing a Failure Mode, Effects, and Criticality Analysis

2.5.5 AR 700-82/SECNAVINST 4410.23/AFMAN 21-106 – SMR Coding

2.6 SECAN Doctrine and Information Publication

2.6.1 SDIP-27 NATO TEMPEST REQUIREMENTS AND EVALUATION PROCEDURES (NATO CONFIDENTIAL, November 2005).

2.6.2 SDIP-29 Facility Design Criteria and Installation of Equipment for the Processing of Classified Information (NATO RESTRICTED, January 2006).

2.6.3 SDIP 30 Installation of Electrical Equipment for Processing of Classified Information ((NATO RESTRICTED, November 2002).

2.7 Health and Safety (H&S) Directives and Standards

2.7.1 The hardware and its installation provided by the Contractor shall meet requirements stipulated in following publications or in their national equivalents for North America deliveries (including but not limited to following publications), as applicable:

2.7.1.1 Directive 2001/95/EC of the European Parliament and of the Council of 3 December 2001 on general product safety.

2.7.1.2 Directive 2014/30/Eu of The European Parliament and of The Council of 26 February 2014 – electromagnetic compatibility.

2.7.1.3 Directive 2014/35/Eu of The European Parliament and of The Council of 26 February 2014 – 'low voltage directive'.

2.7.1.4 RoHS-2 Directive [2011/65/EU] shall be applied to all individual components of the hardware. 2015/863 RoHS 2 amendment shall be applied for products placed on the market on or after 22 July 2019.

2.7.1.5 IEC 60950 series: Information technology equipment – Safety.

2.7.1.6 IEC 61508 Functional safety of electrical/electronic/programmable electronic safety-related systems.

2.7.1.7 IEC 62821 series: Electric cables - Halogen-free, low smoke, thermoplastic insulated and sheathed cables of rated voltages up to and including 450/750V.

2.7.1.8 IEC 61000 series – Electromagnetic compatibility (EMC).

2.7.1.9 IEC 60529 – Degrees of protection provided by enclosures (IP Code).

2.7.1.10 EN 61340-5-1:2016 Electrostatics. Protection of electronic devices from electrostatic phenomena

2.7.1.11 MIL-STD-1472G, DoD Design Criteria Standard, Human Engineering, dated 2012.

2.7.2 The above list of standards does not relieve the Contractor from the obligation to comply with other applicable National Standards in countries to which the hardware shall be provided.

2.7.3 The Contractor shall note that additional applicable publications, which may introduce detailed H&S measures, are also listed in other sections of the SOW.

SECTION 3 – PROJECT MANAGEMENT

3.1 Project Organization

3.1.1 Purchaser Project Organization and Responsibilities

3.1.1.1 The Project will be managed and subject to review by the Purchaser who will be represented by the NCIA Project Management Team (PMT). The PMT will include NCIA functional elements, including ACQ Contracting Officer and IPS Officer. It will be chaired by the NCIA Project Manager (PM).

3.1.1.2 The PMT will be responsible for reviewing the deliverables for the supervision of the implementation and for acceptance of the system. The PMT will constitute the interface with the Contractor.

3.1.2 Contractor's Responsibilities, Organization and Personnel

3.1.2.1 The Contractor shall establish a project management organization for the purpose of performing and managing the efforts necessary to satisfactorily discharge their responsibilities under this Contract.

3.1.2.2 The Contractor shall also provide the necessary manpower and resources to conduct and support the management and administration of their operations to meet the overall objectives of the contract.

3.1.2.3 The Contractor shall apply the PRINCE2 project management methodology to the planning and delivery of the capability under this Contract.

3.1.2.4 Contractor shall provide highlight reports and attend project progress meetings as required.

3.1.2.5 During project execution, the project shall be controlled in accordance with the approved Project Implementation Plan (PIP). As part of the monitoring and control function, the Contractor shall advise the Purchaser at all times of potential problems and schedule risks.

3.1.2.6 Both the Contractor Project Manager and the Contractor Technical Lead identified below shall be considered as Key Personnel in accordance with the Special Provisions of this Contract. Because of their role in coordinating with the Purchaser, all Key Personnel must be fluent in English.

3.1.3 Contractor Project Manager (CPM)

3.1.3.1 The Contractor shall designate a CPM, who will direct and coordinate the activities of the Contractor's project team.

3.1.3.2 The CPM shall be the Contractor's primary contact for the Purchaser's PM and shall conduct all major project design, test, and status reviews.

3.1.3.3 The CPM shall be prepared at all times to present and discuss the status of Contract activities with the Purchaser's PM, Contracting Officer (CO), or Technical Lead (TL).

3.1.3.4 **Contractor PM Qualifications**

3.1.3.4.1 The CPM shall have at least six years' experience as the PM for an effort of similar scope, duration, complexity and cost, including the application of a formal project management methodology such as PRINCE2.

3.1.4 **Contractor Technical Lead**

3.1.4.1 The Contractor shall designate a Technical Lead (TL) for the project. The TL shall lead the analysis, design, development, integration, and follow-on efforts of the Contractor.

3.1.4.2 **Contractor TL Qualifications**

3.1.4.2.1 The TL shall possess a Master's degree in engineering or computer science or shall have equivalent work experience. The TL shall: have at least seven years in engineering positions associated with the review, design, development, evaluation, planning and operation of electrical or electronic components, subsystems, or systems for government or commercial use.; be a member of recognized professional body; have at least seven years in system design and integration of networking and communication component parts similar to those being utilised for the purpose of this contract.

3.1.5 **Contractor Test Director**

3.1.5.1 The Contractor shall designate a Test Director for all test activities conducted under this Contract. The Test Director shall direct test planning, design and tools selection, establish guidelines for test procedures and reports, and co-ordinate with the Purchaser on test support requirements and manage the Contractor test resources.

3.1.5.2 **Contractor Test Director Qualifications**

3.1.5.2.1 The Test Director shall have at least five years' experience in the design and execution of

communication information systems tests.

3.1.6 Contractor Quality Assurance Representative

3.1.6.1 The Contractor shall designate a qualified individual to serve as the Contractor Quality Assurance Representative (CQAR), who will act as the Quality Assurance Manager for activities under this Contract. The CQAR shall report to a separate manager within the Contractor's organization at a level equivalent to or higher than the PM.

3.1.6.2 CQAR Qualifications

3.1.6.2.1 The Quality Assurance Manager shall have at least seven years' experience in working with quality control methods and tools and have a broad knowledge of NATO Standards (e.g. STANAG 4107 Ed. 11), processes and procedures applicable to Quality Assurance (QA) and Quality Control (QC) in the industry. The CQAR shall be independent from the project team and be involved in any project review, acceptance and delivery.

3.1.7 Contractor Integrated Product Support (IPS) Manager

3.1.7.1 The IPS Manager shall have at least ten years' experience in Supportability Engineering for HW/SW intensive Systems, preferably in the Defense and Electronic sector.

3.1.7.2 Contractor IPS Manager Qualifications

3.1.7.2.1 The IPS Manager shall have a systems engineering background or a supportability engineering equivalent certification with deep knowledge of the IPS related NATO standards, handbooks, ISOs/IEC and ASD (Aerospace & Defence) Suite (S1000D, S2000M, S3000L) and tools. The IPS manager shall have experience in all IPS elements and processes (e.g. LSA – Logistic Support Analysis, RAMT – Reliability, Availability, Maintainability and Testability, Training, Documentation etc.) and Configuration Management standards and procedures (e.g. STANAG 4427 Ed. 3 and ISO 10007).

3.2 Project Implementation Plan (PIP)

3.2.1 Scope of the PIP

3.2.1.1 The Contractor shall submit a Draft PIP that describes how the Contractor shall implement project/contract administration, including details of the controls that shall be applied to supervise Sub-Contractor performance. The plan shall also define the details of liaison amongst the Purchaser, the Contractor and any Sub-Contractors. The Draft PIP shall be furnished with the quotation and its related documentation shall be the primary guideline in developing the PIP to be provided in accordance with the requirements set forth therein.

Pending the approval of the PIP, the bid Draft PIP shall constitute the documentation to which reference shall be made on any question that may arise in the preparation of the PIP. After approval by the Purchaser, any new version of the PIP shall constitute the unique Contractor's reference for the project implementation.

3.2.1.2 The PIP shall consider all project implementation aspects, which include management provisions, facilities, schedules, personnel assignments, external relationships and project control. The PIP shall be in 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. The PIP to be prepared by the Contractor shall include as a minimum the following sections:

- Section 1: Project Overview
- Section 2: Applicable Documents
- Section 3: Project Management
- Section 4: System Design and Implementation
- Section 5: Integrated Product Support
- Section 6: Quality Assurance and Quality Control
- Section 7: Configuration Management
- Section 8: Testing and Acceptance
- Section 9: Documentation
- Section 10: Training

3.2.2 **Project Overview**

3.2.2.1 Section 1 of the Draft PIP shall contain a Project overview, which shall provide an executive summary overview of the UOMM capability, summarising the main features of each of the PIP sections and indicate how the Project will be executed during the full lifetime of the Project.

3.2.3 **Applicable Documents**

3.2.3.1 Section 2 of the Draft PIP shall contain the list of documents or standards referenced by the other sections of the Draft PIP.

3.2.4 **Project Management**

3.2.4.1 Section 3 of the Draft PIP shall provide the Project Management Plan (PMP), which shall include:

3.2.4.1.1 The management structure of the Contractor's team.

3.2.4.1.2 A list of Key Personnel assigned to the Contractor's team and their respective roles, responsibilities and authority, as well as their qualifications, experiences and security

clearances.

3.2.4.1.3 The PMP shall identify all major Contractor operating units and any Sub-Contractors and suppliers involved in the delivery of the capability, and a description of the portion of the overall effort or deliverable item for which they are responsible.

3.2.4.1.4 The PMP shall include a Project Breakdown Structure (PBS) that shall contain the critical work elements (tasks) of the project and illustrate their relationships to each other and to the project as a whole.

3.2.4.1.5 The PBS shall be represented either as a hierarchical list, or mind map.

3.2.4.1.6 The PMP shall include the details of the Contractor's methodology for Project Control, including Project Reporting (Section 3.6.1) and Project Meetings (Section 3.6.2).

3.2.4.1.7 The PMP shall include the details of the Contractor's Risk Management approach.

3.2.4.1.8 The PMP shall include the details of the Contractor's Issue Management approach.

3.2.4.1.9 The PMP shall include the contact details of all Contractor and Sub-Contractor personnel.

3.2.4.1.10 The PMP shall include a current and maintained Calendar for all Contractor and Sub-Contractor resources, identifying any periods of leave, National or Official holidays.

3.2.5 System Design, Integration and Implementation

3.2.5.1 Section 4 of the Draft PIP shall cover the System Design, Integration and Implementation aspects of the Project.

3.2.5.2 The Contractor shall include all the areas as detailed in Section 4 of this SOW and present how the functional, performance and technical specifications of this SOW shall be met.

3.2.5.3 The Contractor shall include a Site Implementation Plan, detailing the strategy that will be followed to enable the successful implementation of capabilities at a site to achieve Preliminary System Acceptance.

3.2.6 Integrated Product Support

3.2.6.1 Section 5 of the Draft PIP shall cover the IPS aspects of the Project.

3.2.6.2 This Section shall detail the Contractor's approach to meeting the IPS requirements, as specified in Section 5 of this SOW.

3.2.6.3 Section 5 shall include the Integrated Product Support Plan (IPS Plan, refer to 5.1).

3.2.7 Quality Assurance and Quality Control

3.2.7.1 Section 6 of the Draft PIP shall cover the Quality Assurance and Quality Control aspects of the Project, as specified in Section 6 of this SOW.

3.2.7.2 This Section shall include the QA Plan (QAP), with details of how the Contractor shall establish, execute, document and maintain an effective Quality Assurance (QA) program, throughout the Contract lifetime.

3.2.8 Configuration Management

3.2.8.1 Section 7 of the Draft PIP shall cover the Configuration Management aspects of the Project.

3.2.8.2 This Section shall include the Configuration Management Plan, as specified in Section 7 of this SOW.

3.2.9 Testing and Acceptance

3.2.9.1 Section 8 of the Draft PIP shall define the Contractor's Master Test Plan (MTP).

3.2.9.2 The MTP shall include a description of the allocation of personnel, testing strategy and the schedule to accomplish all the test and acceptance activities, up to and including Final System Acceptance (FSA), as specified in Section 8 of this SOW.

3.2.10 Documentation

3.2.10.1 Section 9 of the Draft PIP shall define all Documentation being delivered by the Contractor and all referenced documentation.

3.2.11 Training

3.2.11.1 Section 10 of the Draft PIP shall define the Contractor's Training Plan.

3.2.11.2 The Training Plan shall include a description of the allocation of personnel, training strategy and the schedule to accomplish all the training activities, as specified in 5.6 of this

SOW.

3.3 Project Master Schedule (PMS)

- 3.3.1 The Contractor shall establish and maintain a Project Master Schedule (PMS) that contains all contract events and milestones for the Project.
- 3.3.2 The Contractor shall ensure all planned deliverables are completed in accordance with the Schedule of Supplies and Services (SSS) and that all deliverables are completed on or before the Effective Date on Contract (EDC) plus (+) dates in accordance with the SSS.
- 3.3.3 The PMS shall show all contractual deliverables, the work associated with them, and their delivery dates.
- 3.3.4 The PMS shall not be cluttered with events or tasks internal to the Contractor, unless they are of major importance to the Project.
- 3.3.5 The PMS shall be provided in Microsoft Project format. For each task, the PMS shall identify the start and finish dates, duration, predecessors, constraints, and resources.
- 3.3.6 The PMS shall provide network, milestone, and Gantt views, and identify the critical path for the overall project.
- 3.3.7 The Contractor shall produce a PMS Plan on a Page (PMSPPOAP) representing the whole project as detailed in the PMS.
- 3.3.8 The PMSPPOAP shall be produced in Microsoft Visio Format, and be updated on a monthly basis as part of the Project Status Reporting cycle.

3.4 Documentation

- 3.4.1 The Contractor shall submit all documents listed in the following table based on the timelines defined as EDC+NN weeks.

Serial	Name	Description	SOW Reference	To be completed by	Format
1	DPIP	Draft Project Implementation Plan	3.2	BID	DOCX
2	PMP	Project Management Plan	3.2.4	EDC+2 weeks	DOCX
3	RISK*	Risk Log	3.7	EDC+2 weeks	XLSX**
4	ISSUE*	Issue Log	3.8	EDC+2 weeks	XLSX**
5	PMS*	Project Management Schedule	3.3	EDC+2 weeks Updated monthly	MPP



Serial	Name	Description	SOW Reference	To be completed by	Format
6	PMS-POAP*	Project Management Schedule Plan on a Page	3.3.7	EDC+2 weeks Updated monthly	VSDX
7	PIP*	Project Implementation Plan	3.2	EDC+4 weeks and reviews	DOCX
8	SIPS	Site Implementation Plan Strategy	3.2.5.3	EDC+4 weeks	DOCX
9	IPSP	Integrated Product Support Plan	5.1.4	EDC+4 weeks	DOCX XLSX
10	QAP	Quality Assurance Plan	6.6	EDC+4 weeks	DOCX
11	CMP	Configuration Management Plan	7.1.3	EDC+4 weeks	DOCX XLSX
12	TRNP*	Training Plan	5.6.9, 5.6.11	Draft: EDC+4 weeks Final: CDR	DOCX XLSX
13	TP-POAP*	Training Plan on a Page	5.6.11	Draft: EDC+4 weeks Final: CDR	DOCX XLSX
14	TNA	Training Needs Analysis	5.6.8	Draft: PDR Final: CDR	DOCX XLSX
15	DP	Documentation Plan	3.2.10	EDC+4 weeks	DOCX
16	ABL*	Allocated Baseline	7.1.7, 7.1.10	Initial: PDR Final: CDR	CMDB dump XLSX
17	PBL*	Product Baseline	7.1.8, 7.1.10	Initial: CDR First formal: CDR + 4W	CMDB dump XLSX
18	MTP	Master Test Plan	8.4	EDC+6 weeks	DOCX
19	ETP	Event Test Plan	8.5	EDC+6 weeks	DOCX
20	RTM	Requirements Traceability Matrix	8.7	EDC+6 weeks	XLSX
21	S1000D IETPs*	S1000D IETPs	5.5.2	Draft at PSA – 8 W Final at PSA – 1W	XML
22	S2000M Tailoring	S2000D Tailoring	5.4.6, 5.4.7	PDR	XML DOCX XLSX
23	S3000L Tailoring	S3000L Tailoring	5.3.2, 5.3.3	PDR	XML DOCX XLSX
24	S2000M and S3000L Tailoring Purchaser approval	S2000M and S3000L Tailoring Purchaser approval (tailoring and decision in the Support Case)	5.5.3.4	CDR	DOCX XLSX
25	TR-Templates	Training Templates and Formats	5.6.13	CDR and revisions	DOCX PPTX PDF
26	S2000M Data*	Provisioning Material Data (part of the Support Case)	5.4.1, 5.4.6, 5.5.3	CDR + 4W and revisions	XML XLSX
27	S3000L Data*	LSA/RMA Data (part of the Support Case)	5.3.1, 5.3.2, 5.3.8, 5.3.11, 5.5.3	CDR + 4W and revisions	XML
28	Site inventory (includes SWDL)*	Site inventory (includes SWDL)	5.5.4	Initial: SiAT – 1W Final: PSA – 1W	XLSX DOCX
29	TR-MAT*	Training Material	5.6.12-5.6.22	Initial: Training Start – 8W Final: Training Start – 2W	DOCX PPTX PDF SCORM

Serial	Name	Description	SOW Reference	To be completed by	Format
30	ABDs and ICDs*	As Built Documentation (ABD) and Interface Control Documents (ICD)	5.5.5	PSA – 4W	DOCX, XLSX, VSD, PDF
31	TR	Test Report	8.8	1 week after each test event	DOCX
32	SIP	Site Implementation Plan	4.4.3.1.2	4 weeks before each site deployment	DOCX
33	SIS	Site Installation Specification (updated and validated)	4.2.1	The (updated and validated) SIS will be submitted as a Draft 4 weeks before each site deployment. Final 2 weeks after each site deployment	DOCX
34	SSR	Site Survey Report (updated and validated)	4.5.2.8	The (updated and validated) SSR will be submitted 4 weeks before each site deployment (or 2 weeks after a site survey event if required)	DOCX
35	SAT	Tier 3 Site Acceptance Test (Plan and procedures)	8.2	4 weeks before each site deployment	DOCX
36	Defect Report / Off-Specification Report	Defect Report / Off-Specification Report (evidence documents)	8.3.1	1 week before TVVA Event	DOCX
37	Dry Run Report/Engineering report	Dry Run Report/Engineering report (evidence documents)	8.3.1	1 week before TVVA Event	DOCX
38	PSA Protocol	PSA Protocol (collection of evidence documents)	4.4.3.2	PSA – 1W	Various formats
39	FSA Protocol	FSA Protocol (collection of evidence documents)	4.4.3.3	FSA – 1W	Various formats
40	Lessons Learned Report	Lessons learned and Identified report	4.4.3.3.4	FSA – 1W	DOCX
41	Test Completion Report	Test Completion Report (evidence documents)	8.3.1	1 week after TVVA event	DOCX

- 3.4.2 Documents marked with an asterisk* are living documents and shall be updated throughout the life of the project.
- 3.4.3 File formats marked with double asterisk ** may be managed as SharePoint forms on the portal rather than the format defined in the table – subject to approval by the Purchaser Project Manager.
- 3.4.4 Documents shall be mastered in the SharePoint Portal provisioned by the Purchaser.
- 3.4.5 All documents shall conform to the file naming and versioning standards identified in Section 6.7 of this SOW.
- 3.4.6 Exceptions to the documents naming convention defined in 3.4.5 shall apply to S1000D, S2000M and S3000L data/exports and CMDB (Configuration Management Database) exports, based on the capabilities of the relevant Contractor data/product management tools.

- 3.4.7 Any formal submission of any document on the portal will not be recognized unless an email is submitted to the Project Managers and Contracting Officers of both parties (Purchaser and Contractor).
- 3.4.8 Document reviews must adopt Track Changes (for Microsoft Word documents). Review comments for other file formats will be managed as separate files

3.5 Documentation Review and Acceptance

- 3.5.1 The Purchaser shall review each Document in detail for a period of up to 10 working days after submission on to the Portal. During this review period, the Contractor shall make available to the Purchaser technical and contractual support as necessary to enable the Purchaser to perform the review. At the end of this period, the Purchaser will provide the Contractor with a detailed review.
- 3.5.2 Within 10 working days of receiving the Purchaser's review of a document, the Contractor shall incorporate all the modifications, additions and expansions required by the Purchaser. The Purchaser, provided that all comments are incorporated, shall then formally accept the document.
- 3.5.3 The Purchaser reserves the right to request one additional cycle of review for each document should the Contractor not incorporate all the modifications, additions and expansions required by the Purchaser. Any delays to the project will be the responsibility of the Contractor.
- 3.5.4 The Purchaser reserves to the right to exercise Articles defined in the Special Provisions should the second review cycle of a document be incomplete.
- 3.5.5 The Purchaser reserves the right to require the Contractor to make further changes to any document, to correct any errors detected during the implementation or to reflect any technical or contractual changes necessary as a result of any supplemental agreement made to the contract.
- 3.5.6 The approval of the PIP by the Purchaser signifies that the Purchaser agrees to the Contractor's approach in meeting the requirements. This approval in no way relieves the Contractor from their responsibilities to achieve the contractual and technical requirements of this contract. The requirements of the Contract supersede any statement in the PIP in case of any conflict, ambiguity or omission.

3.6 Project Controls

3.6.1 **Project Status Reports (PSR)**

3.6.1.1 The Contractor shall provide a Project Status Report (PSR), five (5) working days prior to the Project Review Meeting (PRM) as detailed in Section 3.6.5.

3.6.1.2 Failure to submit the PSR onto the project portal 5 working days prior to the PRM may result in a delay of the PRM – any additional costs or expenses as a result of this delay will be borne by the Contractor.

3.6.1.3 The PSR shall include the following items:

- Summary of project activities during the preceding month, as well as including the status of current and pending activities
- Progress of stage plan, exception plan(s), and schedule status, highlighting any changes since the preceding report
- Description of any identified issues and high risk areas with proposed solutions and corrective actions
- Test(s) conducted and results
- Proposed changes in Contractor personnel
- Summary of Change Requests requested or approved
- Plans for activities during the following reporting period, identifying all dependencies
- Risk and Issues log update
- COVID and BREXIT movement restrictions and update

3.6.1.4 The Purchaser shall by mutual agreement with the Contractor amend the content, format and regularity of the PSR throughout the life of the project.

3.6.2 **Project Meetings**

3.6.2.1 Except otherwise stated in the Contract, the following provisions shall apply to all meetings to be held under the Contract.

3.6.2.2 Meetings shall take place at NCI Agency premises in Casteau (Mons). However, at the discretion of the Purchaser PM, alternative locations or virtual meetings may be permitted.

3.6.2.3 The Contractor shall submit a meeting request and meeting agenda 5 working days prior to any meeting. However, at the discretion of the Purchaser PM, meetings may be arranged with shorter notice.

3.6.2.4 The Contractor shall take meeting minutes, submit them in draft version to the Purchaser for approval within 3 working days of the meeting, on the Project Portal as well as notifying by email.

3.6.2.5 The Purchaser will respond within 3 working days of receipt of the draft minutes, and subject to Purchaser approval, the Contractor will finalized the minutes in the portal.

3.6.2.6 The participants shall not regard these minutes as a mechanism to change the terms, conditions or specifications of the Contract, or as a vehicle to alter the design or configuration of equipment or systems. Any such changes shall only be made by authorized mechanisms as set forth in the Contract.

3.6.2.7 Any documentation, even in draft format, that may be useful to the Purchaser in preparing for meetings and ensuring efficient discussions during the meetings shall be provided to the Purchaser no later than 2 working days before the meeting.

3.6.3 **Project Kick-Off Meeting**

3.6.3.1 The CPM shall participate in the UOMM project kick-off meeting with the Purchaser's Project Team no later than two weeks after EDC. The meetings shall be held at the Purchaser's facility in Casteau (Mons), and shall be arranged by the Purchaser.

3.6.3.2 The Contractor shall propose which resources shall be in attendance (including Sub-Contractor personnel). This must be agreed by the Purchaser PM in advance 2 weeks prior to the meeting.

3.6.3.3 The Contractor (and Sub-Contractor) Project personnel shall introduce themselves, and explain which project deliverables they are accountable for and what work they are responsible for.

3.6.3.4 The CPM shall explain how the Contractor intends to manage the implementation and deployment approach to the sites.

3.6.3.5 The Contractor's Technical Lead resources shall introduce how the Contractor intends to fulfil the technical implementation work (as described in Section 4.1). This shall include the Site Survey aspects.

3.6.3.6 The Contractor's IPS resource shall introduce how the Contractor intends to fulfil the IPS scope of work (as described in Section 5).

3.6.3.7 The Contractor's Test Director shall introduce how the Contractor intends to fulfil the Testing

scope of work (as described in Section 8).

3.6.4 Design Review Meetings

3.6.4.1 The Contractor shall co-ordinate the Design Reviews.

3.6.4.2 Meetings shall take place at NCI Agency premises in Casteau (Mons). However, at the discretion of the Purchaser PM, alternative locations or virtual meetings may be permitted.

3.6.4.3 In addition to the scope and requirements for design reviews as described in Section 4, the Contractor shall provide the following, if applicable, at all design reviews:

- Changes to the PMS
- Risk assessment of proposed changes, and an update of the Risk Log and Issue Logs

3.6.5 Project Review Meetings

3.6.5.1 The Contractor shall coordinate and hold Project Review Meetings (PRM) with the Purchaser.

3.6.5.2 The PRMs shall be held at least once a month throughout the Period of Performance, and one every three (3) months during the Warranty period.

3.6.5.3 The Contractor shall provide a PSR, five (5) working days prior to each PRM, as per Section 3.6.1.

3.6.5.4 The Contractor shall submit a meeting request and meeting agenda 5 working days prior to the PRM.

3.6.5.5 Project delivery problems shall be identified, discussed and escalated with the Purchaser PM promptly, and shall not be held until PRMs.

3.6.5.6 The PRMs shall be conducted in one of the Purchaser's sites or the Contractor's sites and the location shall be subject to the Purchaser PM's approval. Casteau (Mons) shall be considered the primary location to conduct the PRMs. However, the location of PRMs may vary and, where possible, be scheduled with other project meetings.

3.6.5.7 The PRM shall be held on the first Tuesday of each month. Deviation from this is subject to approval by the Purchaser PM.

3.6.5.8 The Contractor shall conduct a PRM once a month throughout the Contract period of

performance and once a quarter during the warranty period (if required). This cadence may increase or decrease if deemed necessary by the Purchaser.

3.6.6 Other Meetings

3.6.6.1 The Purchaser shall host all other meetings unless there is a specifically agreed need to review material, witness technical demonstrations or testing, or perform any other activity outside of the Purchaser's premises, as part of the meeting.

3.6.6.2 The Contractor shall identify to the Purchaser's PM any other meetings with NATO personnel required to support this Contract.

3.6.6.3 Upon approval by the Purchaser's PM, the Contractor shall schedule, organize, and conduct such meetings.

3.7 Risk Management

3.7.1 The Contractor shall establish and maintain an overall Risk Management process for the project.

3.7.2 This Risk Management process shall identify all risks (management, technical, schedule, and cost risks), evaluate each risk, and select a proposed response for each risk.

3.7.3 Evaluating each risk shall result in the risk being rated as High, Medium, or Low, based on its probability and impact.

3.7.4 For each risk, the proposed response shall be selected from the following list:

3.7.4.1 Prevention: Terminate the risk by doing things differently and thus removing the risk, where it is feasible to do so. Countermeasures are put in place that either stop the threat or problem from occurring or prevent it from having any impact on the project or business.

3.7.4.2 Reduction: Treat the risk by taking action to control it in some way where the action either reduces the likelihood of the risk developing or limits the impact on the project to acceptable levels.

3.7.4.3 Acceptance: Tolerate the risk – e.g. if nothing can be done at a reasonable cost to mitigate it or the likelihood and impact of the risk occurring are at an acceptable level.

3.7.4.4 Contingency: plan and organize actions to come into force as and when the risk occurs.

3.7.4.5 Transference: Pass the management of the risk to a third party (e.g. insurance policy or penalty clause), such that the impact of the risk is no longer an issue for the health of the project.

3.7.5 The Risk Management data shall be presented in a Risk Log.

3.7.5.1 The Contractor shall create a Risk Log in the SharePoint Portal, and shall be responsible for maintaining the log throughout the project.

3.7.5.2 The Risk Log shall be a table listing the risks, and shall include the following information:

- Risk identifier: unique code to allow grouping of all information on this risk
- Description: brief description of the risk
- Risk category (e.g. commercial, legal, technical)
- Impact: effect on the project if this risk were to occur
- Probability: estimate of the likelihood of the risk occurring
- Proximity: how close in time is the risk likely to occur
- Countermeasure(s): what actions have been taken/will be taken to counter this risk
- Owner: who has been appointed to keep an eye on this risk
- Author: who submitted the risk
- Date identified: when was the risk first identified
- Date of last update: when was the status of this risk last checked
- Status: e.g. dead, reducing, increasing, no change

3.8 Issue Management

3.8.1 An issue is anything that could have an effect on the Project, either detrimental or beneficial (change request, problem, error, anomaly, risk occurring, query, change in the project environment). An Issue Log shall be established, to record and track all issues and their status.

3.8.2 The Contractor shall create an Issue Log in the SharePoint Portal, and shall be responsible for maintaining the log throughout the project.

3.8.3 The Issue Log shall be a table and shall comprise the following information:

- Project Issue Number
- Project Issue Type (Request for change, Off-specification, general issue such as a

question or a statement of concern)

- Author
- Date identified
- Date of last update
- Description
- Action item
- Responsible (individual in charge of the action item)
- Suspense date (Suspense date for the action item)
- Priority
- Status

3.9 Independent Verification, Validation and Quality (IVVQ)

- 3.9.1 The Purchaser will engage with the IVVQ Service Line for this project. The main objective of the IVVQ activities will be the evaluation of the performance of the Contractor and the verification of the work being performed under the related effort, in particular evaluation of Contractor deliverables and testing activities.
- 3.9.2 IVVQ will also monitor, assess, and report on the Contractor's performance in order to identify, as early as possible, perceived problem areas.
- 3.9.3 The Contractor shall transfer to IVVQ all information deemed necessary to perform the IVVQ activities, on his own initiative or on request by IVVQ or the Purchaser.

3.10 Project Portal

- 3.10.1 The Contractor shall also maintain a Project Portal (provided by the Purchaser) on which all relevant (classified up to NATO RESTRICTED) UOMM project documentation and datasets shall be maintained. The Contractor shall be able to access the Portal using the Purchaser provided REACH laptops (refer to the contract's special provision entitled Reach Capability) or any other approved device/mechanism for the exchange of NATO RESTRICTED information.
- 3.10.2 The Contractor shall make available to the Purchaser access to the Issue Log, Risk Log, Project Master Schedule, and other datasets and tools required by this SOW on the Project Portal.
- 3.10.3 The Contractor shall make available the Project Portal to allow the Purchaser access to the finished and in-progress items, including design specifications and documentation. The Contractor shall use version control for all documentation published in the project portal.



- 3.10.4 The portal shall include all contractor-provided technical documentation.
- 3.10.5 The portal shall include other documents as directed by the Purchaser's PM, CO or NQAR.
- 3.10.6 The documents posted to the portal shall clearly indicate the version number inside the document.
- 3.10.7 The Contractor shall keep the portal up to date, in support of access by the users, or the Purchaser, through the warranty period, and any subsequent extensions.

SECTION 4 – SCOPE OF WORK

4.1 Contractor Activities and Deliverables

4.1.1 The scope of work can be simply defined as three key elements:

4.1.1.1 Implementation of capability to NODCERS as detailed in this document.

4.1.1.2 Implementation of capability to Tier-3 sites as detailed in this document.

4.1.1.3 Creation of the Service and Support capabilities for NODCERS, Tier-3 and Tier-2.

4.1.2 The Equipment (HW, SW and licences) will be provided as Purchaser Furnished Equipment. The Purchaser is responsible for the shipping of the equipment to the sites (based on instruction from the Contractor). All Site Survey Reports and Site Implementation Specification documentation will be provided by the Purchaser.

4.1.3 Technical Implementation

4.1.3.1 Operational NIPS deployments

Ref	Location	Domain	Country
1	SHAPE Tier 3, Casteau (Mons)	NR/NS	Belgium
2	Public Internet Access (PIA), SHAPE, Casteau (Mons)	NR	Belgium
3	NCIRC Tier 2, Casteau (Mons)	NR/NS	Belgium
4 3	NODCERS, Casteau (Mons)	NS	Belgium
5 4	Joint Force Command (JFC), Brunssum	NR/NS	Netherlands
6 5	NATO AWACS Programme Management Agency (NAPMA), Brunssum	NR	Netherlands
7 6	NATO SECRET Point of Presence (PoP), a.k.a., PTC, Brunssum	NS	Netherlands
8 7	NCIA, The Hague	NR/NS	Netherlands
9 8	NATO Supply Procurement Agency (NSPA), Capellen	NR	Luxembourg
10 9	Joint Force Command (JFC), Lago Patria	NR/NS	Italy
11 10	Public Internet Access (PIA), Lago Patria	NR	Italy
12 11	NATO HQ, Evere (Brussels)	NS	Belgium
13 12	NATO Eurofighter Typhoon Management Agency (NETMA), Halbergmoss (Munich)	NR	Germany
14 13	NATO SECRET Point of Presence (PoP), Northwood	NS	UK
15 14	NATO Helicopter Management Agency (NAHEMA), Aix en Provence	NR	France

Ref	Location	Domain	Country
16 15	LANDCOM, Izmir	NR/NS	Turkey
17 16	Allied Command Transformation (ACT) HQ, Norfolk	NR/NS	USA
18 17	NATO SECRET Point of Presence (PoP) Node, Norfolk	NS	USA
19 18	NATO Science & Technology Organization (STO), Collaboration Support Office (CSO), Neuilly-sur-Seine (Paris)	NR	France

4.1.3.2 Operational FPC deployments

Ref	Location	Domain	Country
1	SHAPE Tier 3, Casteau (Mons)	NR/NS	Belgium
2	Public Internet Access (PIA), SHAPE, Casteau (Mons)	NR	Belgium
3	NCIRC Tier 2, Casteau (Mons)	NR/NS	Belgium
4 3	NODCERS, Casteau (Mons)	NS	Belgium
5 4	Joint Force Command (JFC), Brunssum	NR/NS	Netherlands
6 5	NATO SECRET Point of Presence (PoP), a.k.a., PTC, Brunssum	NS	Netherlands
7 6	NATO AWACS Programme Management Agency, Brunssum	NR	Netherlands
8 7	NCIA, The Hague	NR/NS	Netherlands
9 8	NATO Supply Procurement Agency (NSPA), Capellen	NR/NS	Luxembourg
10 9	NATO Supply Procurement Agency (NSPA), Betzdorf	NR	Luxembourg
11 10	Joint Force Command (JFC), Naples	NR/NS	Italy
12 11	Public Internet Access (PIA), Naples	NR	Italy
13 12	Deployable Air Command and Control Centre (DACCC), Poggio Renatico	NR/NS	Italy
14 13	Centre for Maritime Research and Experimentation (CMRE), La Spezia	NR	Italy
15 14	NATO HQ, Evere (Brussels)	NR/NS	Belgium
16 15	AIRCOM, Ramstein	NR/NS	Germany
17 16	Combined Air Operations Centre (CAOC), Uedem	NR/NS	Germany
18 17	NATO Airborne Early Warning (NAEW), Geilenkirchen	NR/NS	Germany
19 18	NATO Eurofighter Typhoon Management Agency (NETMA), Halbergmoss (Munich)	NR	Germany
20 19	Joint Analysis Lesson Learned Centre (JALLC), Monsanto	NR/NS	Portugal

Ref	Location	Domain	Country
21 20	Combined Air Operations Centre (CAOC), Torrejon	NR/NS	Spain
22 21	MARCOM, Northwood	NR/NS	UK
23 22	NATO SECRET Point of Presence (PoP), Northwood	NS	UK
24 23	NATO Helicopter Management Agency (NAHEMA), Aix en Provence	NR	France
25 24	Joint Warfare Centre (JWC), Stavanger	NR/NS	Norway
26 25	Joint Force Training Centre (JFTC), Bydgoszcz	NR/NS	Poland
27 26	LANDCOM, Izmir	NR/NS	Turkey
28 27	Allied Command Transformation (ACT), Norfolk	NR/NS	USA
29 28	NATO SECRET Point of Presence (PoP), Norfolk	NS	USA
30 29	NATO Science & Technology Organization (STO), Collaboration Support Office (CSO), Neuilly-sur-Seine (Paris)	NR	France

4.1.4 The Contractor shall ensure the maintenance of operational NCIRC services via the work undertaken at the sites listed in 4.1.3.1 and 4.1.3.2.

4.1.5 NCIRC Operational Deployment Support & Exercise Reference System (NODCERS)

4.1.5.1 The operational Tier 2 central management servers for both the NIPS and FPC systems have recently been upgraded to the supported versions of hardware and software. This change has not yet been reflected in the reference system known as NODCERS.

4.1.5.2 The Contractor shall deploy and configure a virtual NIPS FMC central management capability in the virtualized environment on NODCERS.

4.1.5.3 The Contractor shall replicate the configuration of the newly deployed Tier 2 NATO SECRET (NS) operational Firepower Management Console (FMC) 4600 to the virtual FMC installed in NODCERS.

4.1.5.4 The Contractor shall deploy and configure a NetWitness Admin server based on software version 11.6 into the virtualized environment on NODCERS.

4.1.5.5 The Contractor shall replicate the configuration of the newly deployed Tier 2 NS operational NetWitness Admin server to the new Virtual Machine (VM) in NODCERS.

- 4.1.5.6 The Contractor shall deploy and configure a NetWitness Event Stream Analysis (ESA) server, based on software version 11.6, into the virtualized environment on NODCERS.
- 4.1.5.7 The Contractor shall replicate the configuration of the newly deployed Tier 2 NS operational NetWitness ESA server to the new VM in NODCERS.
- 4.1.5.8 The Contractor shall deploy and configure a NetWitness Broker¹ server, based on software version 11.6, into the virtualized environment on NODCERS.
- 4.1.5.9 The Contractor shall deploy and configure the Firepower 2115 NIPS appliance into the simulated Tier 3 enclave on NODCERS.
- 4.1.5.10 The Contractor shall bring the Firepower 2115 NIPS under the control of the virtualized FMC and deploy the appropriate configuration.
- 4.1.5.11 The Contractor shall deploy a physical Series 6 NetWitness Decoder, running software version 11.6, into the simulated Tier-3 enclave on NODCERS.
- 4.1.5.12 The Contractor shall deploy the NetWitness Decoder Storage Appliance and connect it to the Decoder.
- 4.1.5.13 The NetWitness Decoder and Storage shall be brought under the control of the new NetWitness Admin server in NODCERS and the configuration pushed to simulate the operational environment.
- 4.1.5.14 The Decoder shall be connected to the monitoring port of the existing Netscout Packet Broker installed in the simulated Tier 3 enclave on NODCERS.
- 4.1.5.15 The Contractor shall deploy a physical Series 6 NetWitness Concentrator, running software version 11.6, into the simulated Tier enclave on NODCERS. The Contractor shall deploy the NetWitness Concentrator Storage Appliance and connect it to the Concentrator.
- 4.1.5.16 The NetWitness Concentrator shall be brought under the control of the new NetWitness Admin server and the configuration pushed to simulate the operational environment.
- 4.1.5.17 The virtual NetWitness Broker shall be configured to simulate the role of the NetWitness Broker in the operational environment. Note that in the operational environment Brokers are normally only required to interface to multiple Concentrators. In NODCERS the NetWitness

¹ Note that the NetWitness Broker is a component of the NetWitness Platform software and should not be confused the Netscout Packet Brokers mentioned elsewhere in the SOW.

Broker will only interface to a single Concentrator.

4.1.6 Firepower NIPS Appliance Deployment

4.1.6.1 The Contractor shall deploy the NIPS hardware on the designated enclaves at each physical site and perform all requisite upgrade and migration activities to facilitate operation of the NIPS.

4.1.6.2 The Contractor shall install the new NIPS sensors configured for passive monitoring and connected to the monitoring tool ports of the existing Netscout packet brokers as shown in Figure 1.

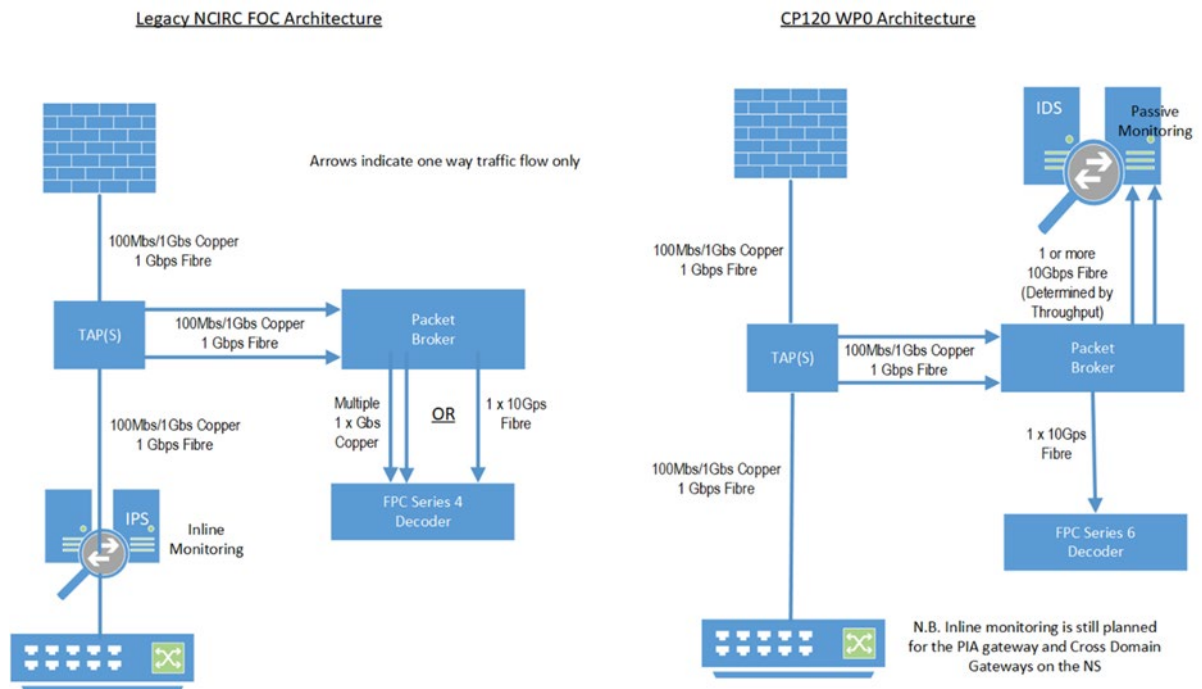


Figure 1 - Change of NIPS Architecture

4.1.6.3 The Contractor shall decommission the legacy NIPS and remove it from the rack.

4.1.6.4 The Contractor shall provide new cabling to facilitate the bypass of the decommissioned NIPS. Note that the existing in-line configuration shall be maintained at a number of Purchaser specified gateways. The gateways are PIAs, PTC nodes plus sites that have an ISP (The Hague, Norfolk, Northwood, Halbergmoss (Munich), Aix en Provence, Stavanger, Capellen, Betzdorf and Neuilly-sur-Seine (Paris)).

4.1.6.5 Note that where the NIPS to be replaced is deployed in inline mode, an outage will need to be coordinated with the site to remove the legacy device. The Purchaser shall support the Contractor in the coordination and execution of the site outages.

- 4.1.6.6 The Contractor shall update the configuration of the existing Netscout/VSS packet brokers to interface to the new NIPS using a 10Gbps connection, where possible². Including the installation of any new connectivity modules (SFP, SFP+) as required. The connectivity modules will be provided by the purchaser as PFE.
- 4.1.6.7 The Contractor shall update the configuration of the existing Netscout/VSS packet brokers to integrate with the new NIPS. Including the installation of any new connectivity modules (SFP, SFP+) as required. The connectivity modules will be provided by the purchaser as PFE.
- 4.1.6.8 The Contractor shall integrate the NIPS appliances with the NCIRC service monitoring solution based on SolarWinds.
- 4.1.6.9 The Firepower appliances are provisioned with dual redundant power supplies. They shall be configured to send an alert via the management connection if one of the power supplies fails.
- 4.1.6.10 The Contractor shall replace the self-signed certificate, used to access the NIPS via HTTPS, with a certificate issued as PFE by the NATO PKI.
- 4.1.6.11 The contractor shall generate Certificate Signing Requests (CSRs) on the NIPS appliances and forward them to NCIA Watchkeepers.

4.1.7 **NetWitness Full Packet Capture Deployment.**

- 4.1.7.1 The RSA central management (Event Stream Analysis, Admin and Broker) servers have already been deployed and configured running software version 11.6. They will be provided as PFE by the ~~customer~~-Purchaser.
- 4.1.7.2 The Contractor shall deploy the RSA NetWitness concentrator, decoder and hybrid appliances, along with the appropriate attached storage, at each physical site in accordance with the breakdown in Annex A - Bill of Materials.
- 4.1.7.3 The Contractor shall configure the management port of each physical appliance and connect it to the management switch.
- 4.1.7.4 The Contractor shall connect the Decoder traffic monitoring ports to the local Packet Broker. Depending on the site this will be either a single 10Gbps port or multiple 1Gbps ports.
- 4.1.7.5 The Contractor shall perform all requisite upgrade and migration activities to facilitate

² Some sites have a VSS V16 Packet Broker that does not support 10Gbps connections

operation of the FPC. The migration of the packets and metadata from the legacy Decoder and Concentrator appliances to the newly deployed appliances is excluded from this requirement.

- 4.1.7.6 Where possible (no constraints of space, power and cooling) the legacy FPC appliances shall be left installed and accessible from Tier-2.
 - 4.1.7.7 The Contractor shall install new virtual NetWitness Tier-3 Brokers at the sites listed in A.10.
 - 4.1.7.8 The Contractor shall install the latest GeoIP database to all Decoders, The Database shall be provided as PFE in MMDB format.
 - 4.1.7.9 The Contractor shall connect all of the RSA NetWitness appliance Integrated Dell Remote Access Controller (iDRAC) ports to the local enclave switch and configure the iDRAC service.
 - 4.1.7.10 The Contractor shall integrate the new FPC Concentrators, Decoders with the NCIRC Security Incident Information and Event Management (SIEM) based on Splunk Enterprise Security (ES).
 - 4.1.7.11 The Contractor shall replicate the existing mechanism to allow PCAPs to be downloaded directly from the Splunk PCAP Management Dashboard.
 - 4.1.7.12 The Contractor shall replicate the existing configuration of the Decoders, Concentrators and NetWitness Brokers to forward system log messages to Splunk via syslog.
 - 4.1.7.13 The Contractor shall integrate the new FPC appliances and virtual Brokers with the NCIRC monitoring solution based on SolarWinds.
 - 4.1.7.14 For each FPC component (Decoder, Concentrator and NetWitness Broker) the Contractor shall replace the self-signed certificate (used for the https based management GUI) with a certificate from the NATO PKI.
 - 4.1.7.15 The contractor shall generate Certificate Signing Requests (CSRs) on the FPC appliances and virtual machines and forward them to NCIA Watch keepers.
 - 4.1.7.16 The Contractor shall integrate the FPC system with the Purchaser's Malware Information Sharing Platform (MISP). This shall facilitate regular automated searches of the historical FPC data stores for possible indicators of compromise as recorded in the MISP database.
- 4.1.8 **Additional Considerations for the Data Center Sites**

4.1.8.1 With the exception of the Data Center sites, the tasks described in this SOW involve the replacement of the existing FPC appliances, bypassing and decommissioning the existing NIPS and connecting the new NIPS to the existing Packet Broker, as described in the previous sections. The number of replacement devices will be the same or less than the current deployment.

4.1.8.2 At the main Data Center sites of Casteau (Mons) and Lago Patria the number of FPC appliances will significantly increase.

4.1.8.3 The Contractor shall connect the new NIPS to the Packet Brokers using four 10Gbps links.

4.1.8.4 At Casteau (Mons) and Lago Patria, the Contractor shall create a design to consolidate the existing currently distinct Public Internet Access (PIA), Tier-3 site, Packet Transport Component (PTC) node and Data Center enclaves.

4.1.8.5 The consolidation shall include but not be limited to the following:

4.1.8.5.1 A reduction in the number of Tier 3 Juniper VPN/Firewall devices.

4.1.8.5.2 Combination of the existing Netscout Packet Brokers to act as a single entity, using the proprietary Netscout vMesh capability.

4.1.8.5.3 Decommissioning of the existing 24 port enclave management switches.

4.1.8.5.4 Installation and configuration of new PFE 48 port enclave management switches.

4.1.8.5.5 A reduction in the number of equipment racks, if possible.

4.1.9 **Additional elements of the CSO Neuilly-sur-Seine (Paris) Installation**

4.1.9.1 The CSO Neuilly-sur-Seine (Paris) installation includes the installation of new NIPS and FPC as described in previous sections but, as this is a new NCIRC FOC site, additional equipment (Juniper Firewall and Ixia Packet Broker) will also need to be installed and configured as described in the following paragraphs.

4.1.9.2 The Contractor shall install and configure the new Juniper SRX380 Firewall.

4.1.9.3 The Contractor shall configure a VPN between the Juniper Firewall and the Tier 2 Juniper VPN Gateway in Casteau (Mons), using NATO PKI certificates to facilitate authentication and encryption.

- 4.1.9.4 The Contractor shall configure spare 1Gbps ports on the Juniper Firewall to create a management LAN for the newly installed systems (NIPS, FPC and Packet Broker).
- 4.1.9.5 The Contractor shall configure Cisco FireSight (Real-time User Awareness) functionality of the NIPS.
- 4.1.9.6 The Contractor shall Install and Configure the NetWitness FPC Hybrid as described in section 4.1.7.
- 4.1.9.7 The Contractor shall install and configure new Cisco Firepower NIPS as described in section 4.1.6.
- 4.1.9.8 The Contractor shall install and configure the Ixia Packet Broker.
- 4.1.9.9 The Contractor shall connect the Packet Broker to the Hybrid appliance and configure it to forward packets.
- 4.1.9.10 The Contractor shall configure filtering rules as directed by the ~~customer~~ Purchaser.

4.2 Purchaser Furnished Elements (PFE)

- 4.2.1 The Purchaser will provide the Data Pack which will include NR material relating to the FPC and NIPS design documents and a sample Site Specific Site Installation Specification (SIS) document.
- 4.2.2 The Contractor shall request of the Purchaser all Operational PKI certificates to be readied within NCIRC in advance of site installation, and installed ahead of activation.
- 4.2.3 The RSA NetWitness virtual Broker software will be provided as PFE.
- 4.2.4 The RSA NetWitness Event Stream Analysis software for the reference system will be provided as PFE.
- 4.2.5 Software and licenses for all RSA NetWitness components will be provided as PFE.
- 4.2.6 All hardware listed in the BOM tables in Annex A will be provided as PFE.
- 4.2.7 The Contractor shall confirm the Purchaser proposed delivery dates represented in the below table.

#	PFEs	DELIVERY DATE
1	Data Pack - Data pack as per 3.4	EDC + 2 weeks
2	PKI Certificates needed for NCIRC NR and NS enclaves	As requested
3	Access to all relevant NCIRC documentation referred to in this SOW	EDC + 2 weeks
4	REACH capability (maximum 5)	One month following each request
5	DB-IP GeolP database	As requested
6	Hardware and Software as detailed in Annex A	As requested
7	Sample Site Survey Report (SSR)	As requested
8	Sample Site Installation Specification (SIS)	As requested

4.3 Schedule Implementation

4.3.1 The Contractor shall carry out all installation and implementation activities necessary to enhance NCIRC FOC services at all specified sites.

4.3.2 The Contractor shall perform the following actions:

4.3.2.1 Updates to current designs where adaptations are necessary, defining these adaptations.

4.3.2.2 Production of test plans, test execution and defect resolution as per section 8.1.

4.3.2.3 Preparing implementation plan for all adaptations.

4.3.2.4 Prepare and execute the release and deployment of Software Release Units or Packages.

4.3.2.5 Unpacking and installing the supplies in Purchaser provided facilities.

4.3.2.6 Identification, status reporting, auditing, and control of Configuration Items and Baselines.

4.3.2.7 Define, create and deliver Operation, Maintenance and Support data and documentation.

4.3.2.8 Prepare and conduct the Handover/Takeover of products and support responsibilities from the Project Implementation team to the NCIRC Operations Teams.

4.4 Delivery Gates

4.4.1 The Contractor shall observe the Delivery Gates throughout the project.

4.4.1.1 The objective of the gates are to formally collate all deliverables and ensure they are completed and accepted by the Purchaser.

4.4.1.2 Each Gate will have entry criteria, and exit criteria.

4.4.1.3 Entry Criteria will be defined in accordance with the deliverables of the associated activities. Once all the entry criteria has been achieved, the contractor shall formally state their readiness for the gate to the Purchaser PM.

4.4.1.4 When planning their activities, the Contractor shall assume the Purchaser requires no less than five (5) working days to process the readiness statement and supporting material for each gate entry and exit criteria.

4.4.1.5 Although at the discretion of the Contractor, submission of entry criteria shall be made when the product is deemed complete and ready for assessment by the Purchaser.

4.4.1.6 The Contractor shall be responsible for the production and submission of every deliverable document.

4.4.1.7 The exit criteria will be defined for each gate. Exit criteria will consist of a subset of the deliverables for the gate being accepted by the Purchaser as meeting the quality as defined and agreed during the project kick-off phase.

4.4.1.8 Until the Purchaser confirms acceptance of all the exit criteria deliverables, the gate will not be passed.

4.4.1.9 Once all entry criteria have been accepted by the Purchaser, the Purchaser shall request a Gate Acceptance Meeting to confirm acceptance.

4.4.1.10 The Contractor shall not progress to the next gate of a delivery lifecycle until the prior gate has been successfully passed.

4.4.1.11 Design Delivery gates are detailed as follows:

- Preliminary Design Review (PDR)
- Critical Design Review (CDR)

4.4.1.12 Implementation gates are detailed as follows, and shall apply to each site as a separate entity, unless explicitly agreed to by the Purchaser PM:

- Site Implementation Gate
- Activation Gate (Preliminary Site Acceptance)
- Acceptance Gate (Final System Acceptance)

4.4.2 Design Delivery Gates

4.4.2.1 The Preliminary Design Review (PDR) shall include the following:

- Initial Requirements Traceability Matrix
- Initial CI breakdown (Allocated Baseline - ABL)
- Interpretation of ambiguous requirements and clear-off of any inconsistency
- Initial Tailoring of S2000M and S3000L Specifications
- Draft Training Needs Analysis (TNA)
- ~~Draft System Design and Implementation Plan~~

4.4.2.2 The Critical Design Review (CDR) shall cover the following:

- Complete Requirements Traceability Matrix (RTM)
- Detailed CI breakdown (Final Allocated Baseline - ABL and initial Product Baseline - PBL)
- Training Templates and Formats
- Final Training Needs Analysis (TNA) including the Training POAP
- Agreed tailoring of S2000M and S3000L Specifications
- Credentials to access Contractors' portals/support resources
- ~~Baselined System Design and Implementation Plan~~
- ~~Baselined Site Implementation Plan~~
- ~~Accepted validated Site Survey Reports and acceptance of completion of all site survey based activities.~~
- Start of the formal ECP Processing (i.a.w. STANAG 4427 Ed. 3): any configuration change shall be subject to formal ECP process and approval by the purchaser

4.4.3 Implementation gates

4.4.3.1 Site Implementation Gates

4.4.3.1.1 The objective of the Implementation gates are to ensure that Site Implementation is conducted appropriately within the project lifecycle. Each site implementation gate will be held a minimum of twenty (20) working days prior to implementation.

4.4.3.1.2 Entry Criteria are defined as:

- The Contractor shall confirm to the Purchaser which equipment must be shipped as PFE to each site.
- Notification is confirmed from the site and Purchaser PM that the implementation schedule is acceptable.
- SIS is submitted for approval
- Site Implementation Plan
- Site Acceptance Testing Plan
- Site Activation Plan
- IPS and CM data and documentation
 - Provisioning Material Data (i.a.w. S2000M Specification), incremental in the Support Case
 - LSA/RMA data (i.a.w. S3000L Specification), incremental in the Support Case
 - Product baseline for SiAT start

4.4.3.1.3 Exit Criteria are defined as:

- All documentation is accepted
- Site and Purchaser PM accept the Site Implementation Entry Criteria are completed
- Confirmation from Purchaser PM that shipping of equipment is underway.

4.4.3.1.4 The deliverables for the Implementation gate are:

- Equipment installation
- Equipment configuration and integration
- T3 SiAT Testing
- SIS
- Event Test Plan
- T3 SiAT Report

- Draft Maintenance/Support and Operation Documentation (IETPs)
- Draft Training Material
- Service Update Activation Checklist

4.4.3.2 Site Activation Gate – Provisional **System Site Acceptance (PSA)**

4.4.3.2.1 The acceptance of **each** PSA will only be granted once all activities within the Implementation and Site Acceptance Testing Gates (Section 4.4.3.1) have been achieved along with the following check list/documents container (PSA Protocol):

- Installation, Integration and testing of the specific Site completed and accepted
- Post SiAT PBL, Site Inventory, SWDL delivered and accepted and PCA completed
- Test Data records signed
- Site elements properly identified and labelled
- IETPs (i.a.w. S1000D) delivered and accepted
- Site Training Material delivered and accepted
- Site level training completed and accepted
- SW Licenses and data delivered and accepted
- Only minor deficiencies left for HW, SW, Documentation (fixes to be implemented during the period PSA-FSA)
- As-Built Documentation (ABD) and Interface Control Documentation (ICD) delivered and accepted
- CMDB delivered and accepted (Incrementally, per Site)
- LSA/RMA data (i.a.w. S3000L) and Provisioning Material Data (i.a.w. S2000M) delivered and accepted (for the site)
- ~~Services restored and accepted as per original SLA~~

4.4.3.2.2 After the last PSA has been achieved, the FSA will be granted once all major deficiencies for the activities required in the relevant phase have been resolved as referenced at the Installation and Implementation Gate.

4.4.3.2.3 The time elapsed between the last PSA and the FSA shall not be more than four (4) weeks.

4.4.3.3 Site Acceptance Gate – Final System Acceptance (FSA)

4.4.3.3.1 The Contractor shall commence FSA upon the acceptance, by the Purchaser, of all

deliverables (services, documents) within all sites PSAs (Section 4.4.3.2) along with the following check list/documents container (FSA Protocol):

- Minor deficiencies from PSAs and major deficiencies raised in the PSA- FSA period recorded and fixed.
- ECPs recorded and latest PBL delivered and accepted
- Purchaser Acceptance of all Acceptance Gates of the project
- Purchaser Acceptance of the FSA Meeting Report
- Approved Fielded Products List (AFPL) and Configuration Control Process (CCP)

4.4.3.3.2 The Contractor shall conduct a two-day FSA Project Service Performance Review (SPR), to be conducted on NODCERS and Tier-3, demonstrating via scenarios the updated services accepted at the respective site in accordance with the SPR. The Contractor shall deliver a SPR Report one week after the completion of the SPR for Purchaser review.

4.4.3.3.3 The Contractor shall provide to the Purchaser a Lessons Identified and Learned Report.

4.4.3.3.4 The Contractor shall conduct an FSA meeting, 1 day's duration, where Acceptance evidence of all activities, deliverables and services of the project will be provided for final review to the Purchaser for final Acceptance, therefore, to start system-level warranty.

4.4.4 **Site Inventory**

4.4.4.1 The Contractor shall create and maintain one Inventory List per site as per requirements provided in the IPS section and, in particular, in paragraphs 5.5, 5.7.13 and 7.

4.4.4.2 The inventories shall be exportable from the Contractor PLM-based CMDB as an MS-Excel file for delivery to the Purchaser on hardcopy and electronic media.

4.4.4.3 The Contractor shall update the NCIRC FOC Software Distribution List by delivering the detailed and complete SWDL as defined and detailed in 5.10.

4.5 **Schedule Service Update**

4.5.1 **Site Survey and Site Survey Reports**

4.5.1.1 No site surveys are envisaged in the scope of this Statement of Work.

4.5.1.2 The Contractor shall receive all Site Survey Reports (SSR) as Purchaser Furnished Equipment (PFE).

4.5.1.3 The Contractor shall validate the content of each SSR as current and correct by whatever means they determine.

4.5.1.4 If the Contractor elects to perform a site survey, then they shall comply with sections ~~4.5.2.6, 4.5.2.7 and 4.5.2.8~~ 4.5.1.6, 4.5.1.7 and 4.5.1.8.

4.5.1.4.1 The objective of the site survey is to determine an agreed and acceptable baseline understanding of the site prior to installation of UOMM components.

4.5.1.5 The Contractor shall submit a validated and updated SSR four (4) weeks prior to any site deployment.

4.5.1.6 **Site Surveys**

4.5.1.6.1 The Contractor may visit Purchaser facilities by exception and at own cost, at which it is required to install elements of the Schedule; survey physical, logistical, and system configuration requirements to support UOMM site installation and activation; and interview site personnel involved in UOMM site installation, training, activation, and use.

4.5.1.6.2 The Contractor shall ensure that each SSR produced enables the Purchaser an accurate review of the design issued by the Contractor.

4.5.1.6.3 The Contractor shall be responsible for the site survey activity, including adequate passage and clearance onto and within each site.

4.5.1.6.4 The site survey shall verify the provided detailed design and identify if there are any design or implementation issues which have not been documented or described.

4.5.1.6.5 The Contractor shall conduct the site survey with Purchaser representatives as agreed with the Purchaser PM.

4.5.1.6.6 The Contractor shall provide the site Point Of Contact (PoC) with details of all equipment requested to be taken on site for the purposes of the site survey.

4.5.1.6.7 The Contractor shall only take cleared equipment on site for the site survey.

4.5.1.6.8 The Contractor shall give at least 10 working-day notice to coordinate in advance with the Purchaser access to any classified spaces which require an escort.

4.5.1.6.9 The Contractor shall produce the SSR to be used to address the following:

- Co-ordination of site installation periods.
- Survey of the physical plant (server rooms, site layout, networking elements, etc.) and identification if additional power or civil works are required.
- Coordination of the installation with the site, identifying all responsibilities, tasks, their sequence and required resources (e.g. space, personnel, and data).
- Identification of the exact shipment addresses and NATO Points of Contact (POCs) for subsequent equipment delivery.
- Identification and documentation of any minor elements not addressed in other project documentation.
- Identification and documentation of training requirements and audience for the NCIRC staff.
- Coordination of a proposed work schedule and migration strategy with the site, including identification of unique technical and design issues to be considered during implementation.

4.5.1.6.10 The Contractor shall validate the type and quantity all equipment pertaining to the provision of UOMM components requested in this SOW.

4.5.1.7 Site Survey Report Template

4.5.1.7.1 The Contractor shall adopt the Purchaser SSR template if required.

4.5.1.8 Site Survey Report (SSR)

4.5.1.8.1 Should the Contractor perform a Site Survey, then the following paragraphs must be followed regarding the production of the SSR.

4.5.1.8.2 The Contractor shall identify all facilities support issues, including modifications or additions required, within one week after the site survey.

4.5.1.8.3 This notification shall be in the electronic form of a documented report to the Purchaser, accompanied by engineering drawings, checklists, or any other supporting information. This will be known as the Site Survey Report (SSR).

4.5.1.8.4 The SSR will be in a fully editable format, including all drawings and plans.

4.5.1.8.5 The Contractor shall provide a SSR detailing its findings from the site survey, identifying all

required Purchaser and Contractor actions to prepare for, conduct, or support a site's installation, transition, and activation.

- 4.5.1.8.6 The Contractor shall provide the SSR not later than ten (10) working days following the completion of the site survey.
- 4.5.1.8.7 Sites support issues that represent Medium or High risk items shall be highlighted in the Project Review Meetings for the period in which they are identified.
- 4.5.1.8.8 At the time of the site survey, the Contractor shall coordinate with the Site and the Purchaser, any additional space, air-conditioning and power requirements. The Purchaser will be required to provide sufficient space, air conditioning and power for the Contractor-delivered equipment.
- 4.5.1.8.9 The Contractor shall identify any civil works dependencies required to complete the project, as a part of the site survey.
- 4.5.1.8.10 The SSR will be reviewed by the Purchaser within ten (10) working days of receipt. The standard documentation review process will be adopted as per Section 3.5.

SECTION 5 – INTEGRATED PRODUCT SUPPORT

5.1 Introduction

- 5.1.1 This Section details all Integrated Product Support (IPS) requirements of this project, covering the Through-Life Supportability aspects that the contractor shall implement for the Urgent Obsolescence Management Mitigation (UOMM) capability including the selected/activated options, if any.
- 5.1.2 In order to deliver the required services and materials (if any), the Contractor shall implement the requirements of this SOW and use the provided templates and instructions that the Purchaser will make available with the bid or at EDC at the latest.
- 5.1.3 Although the Contractor's work defined in Section 4 will rely on PFEs provided by NCI Agency for installation, integration and testing in the listed sites/locations, the Contractor shall be fully responsible for the design of Operation, Maintenance and Support tasks for all the implemented sites/locations, in accordance with the requirements set in this Section 5 and in Section 7, and shall develop and deliver the relevant artefacts and services as defined in the next paragraphs.
- 5.1.4 The Contractor shall include an IPS Plan (IPSP) as part of the PIP describing all aspects of support and how the Contractor proposes to meet the IPS requirements, following the requirements set in the Agency Instruction (AI) 16.31.03 – Requirements for the Preparation of IPSP.
- 5.1.5 The IPSP shall include details that demonstrate how the Contractor proposes to meet all IPS requirements throughout the entire period of performance of the contract including the warranty period as detailed in Section 5.14 below.
- 5.1.6 The Purchaser will verify that the activities, deliveries, analyses and documentation delivered by the Contractor(s) are integrated, coherent and consistent with the contractual requirements and do not degrade the current operational availability of the Systems and of the Services.
- 5.1.7 The Contractor shall be fully responsible for the delivery of the required services, processes, procedures and resources (skills, tools, spares and consumables if applicable) for the implementation of the requirements and full restoration of the systems and services affected by the activities required by this contract.

5.2 Maintenance and Support Concept

- 5.2.1 The Maintenance and Support definitions applicable to the project are defined and detailed in Annex B.

- 5.2.2 The Contractor shall design/deliver the system/elements and the Support/Maintenance documentation, instructions, and resources (skills, spares, repairs³, tools/test equipment etc.) in order to allow the purchaser to fully Operate the Systems, to perform HL1/2 and SL1/2 Maintenance and Support the System up to Level 3 (centralized) from each Provisional Site Acceptance (PSA) for the relevant site(s).
- 5.2.3 The Contractor shall be fully responsible, in accordance with the above defined Maintenance and Support Concept, to deliver all the resources (spares, repairs, training, documentation, tools, test equipment etc.), analyses, studies required to sustain the delivered System and meet the performance and functional requirements defined in this SOW until the end of the warranty.
- 5.2.4 All activities on-sites beyond NATO capabilities/skills (as per maintenance concept and contractor delivered training and documentation) required to restore the System from a critical failure shall be carried on by the Contractor by dedicated on-site interventions in no more than 24 hours from purchaser request and including the required materials and tools (HW/SW).
- 5.2.5 All activities on-sites beyond Purchaser capabilities/skills (as per Maintenance Concept and Contractor delivered training and documentation) required to fix any non critical issue affecting the systems/elements, shall be carried on by the Contractor by dedicated on-site interventions to be planned with the Purchaser in the first available Preventative Maintenance downtime slot; the activity shall include the required materials and tools (hardware/software) at no additional cost for the purchaser.

5.3 Logistic Support Analysis (LSA) and Reliability, Maintainability and Availability (RMA)

- 5.3.1 The Contractor shall develop and document a detailed Logistic Support Analysis in accordance with the ASD S3000L Specification and deliver it as part of a Support Case in accordance with the timelines provided below.
- 5.3.2 The Contractor shall propose to the Purchasers a tailoring of the S3000L Specification, to be agreed with the Purchaser, in order to define as a minimum the following elements in accordance with the Maintenance and Support levels defined in Annex B and the Maintenance and Support concept defined in paragraph 5.2:
- Full Logistic Support Analysis (LSA) Breakdown Structure (LBS)/Product Breakdown Structure (PBS);

³ An initial set of spares will be provided by NCI Agency as PFE and the repairs will be covered by the extended warranty services purchased under different agreement until its completion. The Contractor might be asked to support the Agency in the repair and procurement process for other spares during the warranty period relevant to the work required in this SOW.

- Level of Repair Analysis identifying the maintenance level of each individual element of the LBS/PBS, both for Preventative (PM) and Corrective Maintenance (CM) and including troubleshooting;
 - Full and detailed range of PM and CM tasks, including troubleshooting, and relevant durations, periodicities, resources (skills/trades, tools, materials), Safety data/procedures.
- 5.3.3 The tailoring of the S3000L specification, the minimum dataset and the formats of the data/deliverables shall be delivered at PDR.
- 5.3.4 The IPS activities shall, as a minimum, generate the data, structures and deliverables required by this SOW, subject to Configuration Management as defined in Section 7 and under the Quality constraints defined in Section 6.
- 5.3.5 The Contractor shall define, design and document (in the Support Case) the Maintenance tasks and resources associated to the new/modified/upgraded equipment in order to allow 95% of the failures to be recovered and operations to be executed at Organizational Level (HL1/2 and SL1/2) by Purchaser personnel.
- 5.3.6 The Contractor shall support the NCI Agency, from each site's PSA up to the end of the Warranty period, for the HL3/4 and SL3/4 activities, for the provision of HL1/2 repairs/spares and for the provision of remote and onsite technical assistance beyond the scope and capabilities of Organizational Level Maintenance.
- 5.3.7 The Organization Level maintenance shall be executed on site and include Preventative Maintenance, Corrective Maintenance and related troubleshooting activities to be reflected in the training, training material and Operation and Maintenance (O&M) manuals that the Contractor shall provide.
- 5.3.8 The Contractor shall provide, as part of the Support Case, the following data/elements for the hardware (including firmware) and software delivered and/or installed/integrated as part of this project, in conformance with the latest applicable Product Baseline (PBL, see paragraph 7):
- Detailed hierarchical Logistic Support Analysis (LSA) Breakdown Structure (LBS)/Product Breakdown Structure (PBS) down to the Maintenance Relevant/Significant Item (MRI/MSI), hybrid type as per S3000L Specification;
 - MRI/MSIs category (Line Replaceable Unit - LRU, Insurance Item - II, Attaching Part - AP, Technical and/or non-Technical consumable, Next Higher Assembly - NHA, not-MRI/MSI) as per definitions given in Annex B;
 - Full Configuration Management data (identification of Configuration Items - CIs, type of CI, relationships, dependencies) in accordance with STANAG 4427 Ed.3 (see

Section 7);

- Maintenance Level (preventative, corrective, troubleshooting) associated to each individual item identified in the LBS/PBS;
- MTBF (Mean Time Between Failure) and MTBCF (Mean Time Between Critical Failures) for each HW element down to MRI/MSI level and relevant calculation method (predicted, allocated, field data, specification) and conditions (temperature, environment etc.);
- MTTR (Mean Time to Repair) for each HW element down to MRI/MSI (as per definition of MIL-HDBK-470A, Appendix D);
- Failure modes, failure mode ratio and criticality number and categorization for each HW element down to MRI/MSI level (simplified Failure Modes Effects and Criticality Analysis - FMECA, including HW & SW, using MIL-STD-1629A as guideline or IEC 60812: 2018);
- RBDs (Reliability Block Diagrams) from System level down to MSI/MRI level and relevant MTBCF (Mean Time Between Critical Failures) and MTRS (Meant Time To Restore System) calculations as per MIL-HDBK-338B and IEC 61078:2016;
- Corrective Maintenance tasks and their durations, skills/trades, tools, materials and step by step procedures required to feed the IETPs;
- Preventative Maintenance tasks, their periodicities and their durations (Mean Time Between Preventative maintenance - MTBP and Mean Time To Preventive - MTTP as per guidelines given by MIL-HDBK-338B), skills/trades, tools, materials and step by step procedures required to feed the IETPs;
- Population at each MRI/MSI level and QEI (Quantity per End Item);
- SMR (Source, Maintenance, Recoverability) Coding down to MRI/MSI level in accordance with AR 700-82/SECNAVINST 4410.23/AFMAN 21-106;
- Safety instructions.

5.3.9 The Contractor shall provide Operational and Maintenance Instructions, training and manuals to enable the Purchaser to Support the System up to Level 3 (centralized) and maintain it up to HL1/2-SL1/2 as per Maintenance/Support concept defined in paragraph 5.2.

5.3.10 The Operational instructions shall specify the tasks, the processes and the resources required at each Support Level (as per support concept defined in paragraph 5.2) including the interaction/coordination with the Maintenance activities.

5.3.11 All LSA and RMA data shall be provided both as raw MS Excel tables and/or S3000L XML dumps and as summary reports (with supporting MS Excel data, calculation methods and applicable standards and handbooks), fully consistent with the LBS/PBS and the relevant PBL, as per agreed tailoring of the S3000L specification.

5.4 Supply Support

- 5.4.1 For all the activities delivering any customization, modification, change, deletion or addition or replacement to the Systems in the scope of this project, the appointed Contractor shall define the data (and document them in the Support Case) relevant to the spare parts (LRUs, Insurance Items), technical and non-technical consumables for each site in accordance with the requirements and specifications outlined below.
- 5.4.2 The defined spare parts and consumables shall be coherent and consistent with the O&M concept defined in Annex B and in paragraph 5.2 and with the procedures reported in the Maintenance, Support and Operation Manuals and Training Material.
- 5.4.3 The Spare Parts and consumables data shall be coherent with the initial list of candidates and selected items provided by the Purchaser at EDC.
- 5.4.4 At each PSA, the consumables and spare parts will be made available to the sites by the Purchaser.
- 5.4.5 After each PSA, re-supply of technical consumables and repair/replenishment of spares will be the responsibility and cost of the Purchaser; the Contractor shall provide support to the Purchaser in the prompt acquisition of additional spares and repairs, if needed, to maintain the different sites/locations operational.
- 5.4.6 The Contractor shall propose to the Purchasers, n.i.t. PDR, a tailoring of the S2000M Specification, in order to define the minimum dataset (TEI – Text Element Identifiers) in accordance with the Maintenance and Support levels defined in Annex B, the Maintenance and Support concept defined in paragraph 5.2 and requirements in 5.4.7.
- 5.4.7 The Contractor shall provide at CDR + four (4) working weeks to the Purchaser PM and IPS Officer the following data (as part of the Support Case), in accordance with S2000M Spec., for each list of Spare Parts and Consumables candidates and for each set of calculated spares and consumables, including (but not limited to):
- Part Number
 - NCAGE (NATO Commercial and Government Entity code)
 - NCAGE Data (name, address, Point of Contact – POC, etc.)
 - Description/nomenclature
 - MRI/MSI type
 - MTBF (for Spare parts – LRUs and Insurance Items only)
 - Consumption Rate (for consumables)
 - Quantity per End Item

- Recommended quantity
- Unit Price
- Price Unit Of Measure (UOM)
- Minimum Order Quantity (MOQ)
- SMR Code
- Turn-Around-Time (TAT) or Lead Time (LT), coherent with the SMR Code

5.5 Technical Documentation and Data

5.5.1 In addition to the documentation/data listed and detailed in other sections of this SOW, the Contractor shall deliver what follows (details for content in the following paragraphs):

- Interactive Electronic Technical Publications (IETPs)
- Logistic Data
- System Inventory
- As-Built Documentation and Interface Control Documents
- Contractors' support portals and Knowledge Base

5.5.2 Interactive Electronic Technical Publications (IETPs)

5.5.2.1 The Contractor shall develop and deliver the Interactive Electronic Technical Publications (IETPs) in accordance with the S1000D Issue 5.0 specification as per the tailoring provided by the Purchaser with the following Agency Instructions:

- AI 16.31.07 – GD (Guidance Document) for ASD-AIA-ATA S1000D TechPubs
- AI 16.31.07 Annex A – S1000D Issue 5.0 Business Rules Decision Point (BRDP) Index
- AI 16.31.12 – WSG (Writing Style Guide) for ASD-AIA-ATA S1000D TechPubs
- AI 16.31.13 – ISG (Illustration Style Guide) for ASD-AIA-ATA S1000D TechPubs

5.5.2.2 The Contractor shall deliver the following IETPs (fully compliant with S1000D Spec. as per AIs above) for each System/Element and site/location:

- HL1/2 and SL1/2 Maintenance Manuals, including (but not limited to):
 - System description, controls and indicators
 - Corrective, Preventative and Troubleshooting procedures down to MRI/MSI level
 - Illustrated Parts Catalogue

- Support Levels 1, 2 and 3 Instructions, including:
 - Operating Instructions
 - HW and SW Monitoring
 - Network integration description and management
 - SW installation, policies management, fine tuning
 - SW troubleshooting, debugging, patching, re-installation
 - SW performance improvement procedures
 - System Administrator instructions
- COTS Manuals (in their original format, PDF) encapsulated in the IETPs Data Modules (DMs) as required in the AI 16.31.07 (GD).
 - Modules (DMs) as required in the AI 16.31.07 (GD).

5.5.2.3 The above listed IETPs shall be delivered to the Purchaser's PM and IPS Officer as a preliminary version (in the form of Publication Module(s)/Data Module(s) as required in the AI 16.31.07 GD) not later than PSA – eight (8) working weeks and be ready, used and commented when the training sessions will occur.

5.5.2.4 The Contractor shall execute a desktop verification of the IETPs content, structure and layout and usability on a S1000D fully compliant browser⁴ and shall be QA approved by the contractor QA authority before such manuals are delivered to the Purchaser.

5.5.2.5 The Purchaser will validate the IETPs and will collect comments to the IETPs in different stages (including the training sessions) and will provide all the comments to the Contractor not later than PSA – 4 working weeks or after training completion.

5.5.2.6 The Contractor shall deliver the original version (starting from the preliminary version including the implementation of all the comments) not later than PSA – one (1) working week.

5.5.2.7 The IETPs shall be delivered as an installation package to be viewed/browsed with an S1000D fully compliant browser for Windows 10 environment.

5.5.3 **Logistic Data**

5.5.3.1 The Contractor shall generate/predict/collect and deliver the LSA/RMA Data required in paragraph 5.3 in accordance with the Purchaser's agreed Contractor tailoring of S3000L Specification and the Supply Support data required in paragraph 5.4 in accordance with the Purchaser's agreed Contractor tailoring of S2000M Specification, fully aligned with the

⁴ The S1000D browser is not part of the provision and any available S1000D browser can be used by the Contractor for the IETPs verification.

applicable PBL as per requirements in section 7.1 and sub-sections of this SOW.

5.5.3.2 The Contractor shall deliver S3000L analyses and data and the S2000M analyses and data as part of an incremental Support Case, not later than CDR + four (4) weeks and reviews anytime there are updates/upgrades (through ECP process if and when applicable) and Purchaser comments affecting such data and documentation.

5.5.3.3 The Support Case shall be delivered as a formal document (including the original raw data and all annexes/appendixes) to the Purchaser's PM and IPS officer for assessment, commenting and eventually re-issuance if needed.

5.5.3.4 The Contractor shall agree with the Purchaser, not later than the CDR, the tailoring of the above mentioned specifications (S2000M and S3000L), the mandatory and additional fields and the format of the data to be delivered.

5.5.3.5 The Contractor is fully responsible of the data, their validity, correctness and overall quality and shall update the information any time major changes are required (e.g. implementation of an ECP – see section 7 – affecting the data, amendment of incorrect numbers, improvements due to field data, escalations etc.).

5.5.4 Sites and System Inventory

5.5.4.1 The Contractor shall provide the Purchaser with an initial site inventory (as part of the Support Case) at least at SiAT – 1W and with a final site inventory at PSA – 1W.

5.5.4.2 The system inventory shall be site specific and shall include all the items furnished under the project (e.g. PFEs) and all elements/items introduced by the Contractor (if any) as follows:

- All items (both Commercial Off The shelf - COTS and developmental Items - DIs, both hardware and software) down to MRI/MSI level, hierarchically structured and conforming the LBS/PBS and Product baseline (PBL);
- All interconnecting equipment/elements, either special-to-type or standard, required to install, integrate or operate the System delivered in the frame of the project;
- All special-to-type and standard tools and test equipment(both hardware and software), required to operate and maintain the delivered System and conforming with the procedures reported in the Maintenance and Support manuals and in the training
- All spare parts (any MRI/MSI category) handed over by the Purchaser
- All documentation (manuals, training material/handbooks, as built drawings, plans, procedures, data records and any Contract Data Requirement List - CDRL in general).
- All the Software (see Section 5.10).

5.5.4.3 The contractor shall provide the Inventories in accordance with the template(s) that will be provided by the Purchaser after Contract Award.

5.5.5 As-Built Documentation and Interface Control Documents

5.5.5.1 The Contractor shall create (or modify, if available) and deliver to the Purchaser's PM and IPS Officer a full set of As-Built Documentation (ABDs) and Interface Control Documents (ICD), in electronic format, not later than PSA – 4 working weeks.

5.5.5.2 Should the ABDs require corrections, the Contractor shall take in charge all Purchaser comments and re-deliver the documentation within two (2) working weeks from the reception of Purchaser comments.

5.5.5.3 The title of each drawing plus all included text and annotations shall be in English.

5.5.5.4 The appropriate NATO classification shall be on the top and bottom of each drawing.

5.5.5.5 The number and scale of each drawing (where applicable) shall be clearly indicated, in addition to the issue number of each drawing. Definition(s) may be given on the drawing, where used, or a summary sheet, or sheets, at the front of the document.

5.5.5.6 All drawings (showing physical installations) shall be to a scale of not less than 1:50.

5.5.5.7 The as-built drawings shall provide full details of how all of the major assemblies of the supplied equipment have been physically installed and mechanically/electrically integrated. As- built drawings shall be self-sufficient and independent of any other documents.

5.5.5.8 The as-built drawings shall cover the following (whatever is applicable) for any item replaced, modified or integrated in the frame of the project in the existing System/site:

- All floor and wall plans to include the physical details of all installed equipment, apparatus and devices;
- Location plans with complete details of all cross-connection frames and patch panels.
- Physical and logical details of all cable racking and cable numbers and cable functions to include as appropriate all connections, connectors and sockets;
- Details covering all wiring termination points including wire numbers and color coding, if applicable;
- Ancillary equipment details to include, as appropriate, connection points and termination points, patch panels etc.;

- The functions of all inter-connecting cables, including cross-site cabling with their codes/labels;
- Update of existing As-Built Drawings to reflect alteration works carried out by the Contractor to existing racks, elements, panels, rooms etc.

5.5.5.9 The Contractor shall provide the ABDs in electronic form and with file formats compatible with MS Visio (2016).

5.5.5.10 A copy of the ABDs shall also be provided in PDF.

5.6 Training

- 5.6.1 As part of each System/element implemented in the scope of this project, including any modification to existing hardware/software on each site by the appointed Contractor, the Contractor shall deliver a full training programme including Training Needs Analysis (TNA), planning, preparation/design, delivery/execution and assessment of the training activities.
- 5.6.2 The training programme shall cover all Maintenance, Operation and Support aspects relevant to the new system and modified systems/elements in accordance with the Maintenance and Support Concept defined in Section 5.1.7.
- 5.6.3 The Contractor shall deliver one (1) Operation Train-the-Trainer (TtT) training session for each newly delivered/installed/integrated/tested element/system/capability to allow the NCIRC Analyst personnel to fully operate the equipment (HW, FW) and SW.
- 5.6.4 The Contractor shall deliver one (1) Maintenance and Support Train-the-Trainer (TtT) training session per Tier-3 site on the newly delivered/ installed/ integrated/ tested element/ system/ capability to allow the Tier-3 sites personnel to perform maintenance at level 1 and 2 and support at level 1 and 2 of the delivered equipment (HW, FW) and SW as per Maintenance and Support concept defined in 5.1.7 and in Annex B.
- 5.6.5 The Contractor shall deliver one (1) Administrator Train-the-Trainer (TtT) training session for each newly delivered/installed/integrated/tested element/system/capability to allow the Tier-2 personnel to fully install, re-install, set-up, customize, troubleshoot, patch, update, upgrade, test and release and administer the new delivered equipment (HW, FW) and SW, including automation, scripting and adaptations that may be required in the life of the systems/capabilities, in line with the Support level 3 and as per Maintenance and Support concept defined in 5.2 and in Annex B.
- 5.6.6 The Contractor shall deliver each training session up to a maximum of 10 trainees (per session) that will have at least a basic starting knowledge on systems similar to the ones in the scope of this project and at the same maintenance/support level(s).

- 5.6.7 The Contractor shall deliver the training considering a 50/50 percent blend of classroom and hands-on training or propose any alternative training method for discussion and concurrence with the Purchaser (at no additional cost).
- 5.6.8 In preparation of the training activities, the contractor shall deliver a draft Training Needs Analysis (TNA) not later than PDR and a final version not later than CDR in accordance with the Purchaser provided AI 16.31.11 – Requirements for the Preparation of TNA Reports.
- 5.6.9 The Contractor shall deliver a draft Training Plan (including the TP-POAP, ref. 5.6.11) with the PIP and a final Training Plan at CDR including the resolution of all the comments provided by the purchaser on the draft version.
- 5.6.10 The Training Plan shall describe in detail the training programme that the Contractor will implement including the proposed duration for each session, sequence of the sessions, daily planning and any other information deemed important for the correct planning and execution of the trainings.
- 5.6.11 The Contractor shall develop and deliver the Training Plan (TRNP) in accordance with the Purchaser provided Agency Instructions:
- AI 16.31.04 – Requirements for the preparation of TRNP
 - AI 16.31.04 Annex A – Training POAP (Plan On A Page)
 - AI 16.31.04 Annex B – Training Feedback Form
 - AI 16.31.04 Annex C – Training Evaluation Report Form
- 5.6.12 The Contractor's proposed duration of the trainings shall be accepted by the Purchaser and be adequate to the content, complexity and required knowledge to be transferred to the trainees in accordance with the requirements of this SOW, the Maintenance and support concept defined in 5.1.7 and Annex B and the result of the TNA required above.
- 5.6.13 The Contractor shall propose to the purchaser the formats and templates for the training data and material at CDR.
- 5.6.14 Upon review of the proposed format and templates for the training data and material, the purchaser will provide comments (if any) or acceptance within four (4) working weeks from the reception of Purchaser's proposed format and templates for the training data and material.
- 5.6.15 In case of comments of the purchaser, the Contractor shall provide an amended version of

the format and templates for training not later than two (2) working weeks from the reception of Purchaser's comments.

- 5.6.16 The Contractor shall prepare/design the training data and material on the basis of the maintenance and support concept (Section 5.1.7), specialties (maintenance, support, and operation), levels and requirements defined in this SoW.
- 5.6.17 The training data and material shall be delivered to the PM and the IPS Officer in electronic format not later than eight (8) working weeks before the expected training for Purchaser review and acceptance before training start.
- 5.6.18 Upon review of the training data and material, the purchaser will provide comments (if any) or acceptance within four (4) working weeks.
- 5.6.19 In case of comments of the purchaser, the Contractor shall provide an amended version of the training data and material not later than two (2) working weeks from the reception of Purchaser's comments.
- 5.6.20 The Contractor shall be responsible for the timely provision on the training site/location of the following training data and material for each trainee:
- trainee guidebook;
 - Training material, properly structured and organized, including (but not limited to) video/audio material, drawings and procedures, slides/presentations, COTS documentation etc.;
 - Interactive Electronic Technical Publications (in accordance with S1000D Spec.);
 - Final training test questionnaire;
 - Completion certificates (upon successful completion of the final test).
- 5.6.21 The Contractor shall be responsible for the instructor material and tools (instructor's guidebook, laptop, portable projector etc.).
- 5.6.22 The Contractor shall be fully responsible for the quality, content, completeness and correctness of the training material and shall implement the modifications, corrections and improvements required by the Purchaser to achieve acceptance and deliver the training accordingly.
- 5.6.23 The training and training material shall be delivered in simplified English language and the instructor shall be fluent in English or proficient and certified in English language (STANAG 6001 level 4333 at least).

- 5.6.24 Any training session/course shall be delivered by an instructor with a minimum of two (2) years' experience of the product/system/capability involved.
- 5.6.25 The Contractor shall deliver and complete (achieving full purchaser acceptance) all the training sessions before PSA is granted.
- 5.6.26 The level 1/2 (Maintenance and Support) and the support Level 3 training sessions shall not be run in parallel.
- 5.6.27 At training start, the Contractor shall make available the draft version of the Interactive Electronic Technical Publications (IETPs) to be used as integral part of the training material and data during each session.

5.7 Packaging, Handling, Storage and Transportation (PHST)

- 5.7.1 The Contractor shall be fully responsible for the Packaging, Handling, Storage and Transportation of the equipment, if any, to the destination sites or up to Tempest Testing Facility, if applicable, except for PFEs for which the purchaser will be responsible.
- 5.7.2 The Contractor shall define the best method for the Packaging, fulfilling as a minimum the requirements of STANAG 4280 "NATO Levels of Packaging", NATO packaging level 4.
- 5.7.3 The Contractor shall ship all required supplies to the specified site or alternatively to the Tempest Testing facility as per the Schedule.
- 5.7.4 The contractor shall be fully responsible for the decision and the selection of the proper packaging, marking and transportation means (air, sea, land), making proper considerations about and including (but not limited to) vibrations, shocks, management of Electrostatic Discharge (ESD) sensitive devices, altitude/pressure, temperature and humidity limits not to be exceeded during the PHST activities.
- 5.7.5 The Contractor shall unpack and install the supplies in Purchaser provided facilities.
- 5.7.6 Any malfunction/failure of UOMM equipment at destination (e.g., site/location or Tempest testing facility) assessed at incoming inspection, inventory or testing level shall be full responsibility of the Contractor.
- 5.7.7 In such circumstances, the Contractor shall immediately notify the provider of the defect and the estimated time to correct the defect.
- 5.7.8 Within 10 working days, the Contractor shall follow up the initial notification with a confirmed time to correct the defect.

- 5.7.9 PHST costs including insurances, security, Customs duties (if any), manufacturing/adaptations and/or purchase of commercial or special boxes/packages/containers for PHST activities (e.g. including interfaces for pulling, lifting, handling etc.) and the rent/purchase/lease/use of any tool and facility (crane, forklift, box, container, storage area etc.) including Safety arrangements, aids and instructions for Contractor personnel, shall be under the sole responsibility and cost of the contractor.
- 5.7.10 The contractor shall coordinate with NCIA and with the local authorities the access to the sites and the proper Safety and Security procedures to be put in place for the PHST activities, for installation, integration and testing (if applicable).

5.8 302 Forms

- 5.8.1 Although the Contractor is not expected to purchase and deliver any material to the destinations sites, should this become necessary the Contractor shall be responsible for the timely request of Customs Forms 302 which are required for duty free import/export of supplies between certain countries. Following receipt of the request by the Purchaser, normally a maximum of three working days are required for the issue of the form.
- 5.8.2 These forms shall be originals and can therefore not be faxed but have to be mailed or sent by mail/express courier.
- 5.8.3 In case that an express courier has to be used to ensure that the form is available in time before shipment, the Contractor shall create an account with a Contractor's designated freight forwarder (e.g. DHL, FEDEX) that the Purchaser can use for this purpose. The purchaser will provide a template detailing the required information for completion of the forms and the IPS PoC to address the requests.
- 5.8.4 If a country refuses to accept the Form 302 and requires the payment of customs duties, the Contractor shall pay these customs duties and the Purchaser shall reimburse the Contractor at actual cost against presentation of pertaining documents. Should such an event occur, the Contractor shall immediately inform the Purchaser by the fastest means available and before paying, obtain from the Customs officer a written statement establishing that his Country refuses to accept the Form 302.
- 5.8.5 Forwarding agents shall be informed of the availability of Form 302 and how this form is utilised to avoid the payment of customs duties. This Form 302 shall be added to the shipping documents to be provided to the carrier.

5.9 Physical Labelling

- 5.9.1 Upon successful completion of SiAT(s) the contractor shall make available to the Purchaser

an update of the Product Breakdown Structure (PBS)/LSA Breakdown Structure (LBS) (including post SiAT Inventory) i.a.w. the requirements in SOW 5.3 and 7.

- 5.9.2 The Contractor shall develop the PBS/LBS from Site/System level and then sub-systems, units, assemblies and down to MRIs/MSIs level in accordance with the PBL structure and CM identification processes defined in Section 7 (full integration of HW and SW elements, including COTS).
- 5.9.3 Based on the Contractor provided data, the Purchaser will generate and provide labels with the NATO coding schema compliant with STANAG 4329 and AAP-44, which the Contractor shall attach to the equipment before it is ready to be PSA-ed.

5.10 Software Delivery

5.10.1 The Contractor shall provide a detailed Software Distribution List (SWDL), which details comprehensively all CSCIs and associated software, firmware or feature/performance licenses provided/ installed/ integrated/ tested under this Contract (including PFEs).

5.10.2 The SWDL shall include, the following data/elements:

- Computer SW Configuration Item (CSCI) identification number (for Software and Firmware)
- Nomenclature
- Version number
- License key (if applicable)
- License renewal date (if applicable)
- Warranty expiration date
- Date of distribution
- Distribution location (geographically)
- Distribution target (server)
- Hosting Platform (e.g. O/S, version etc.) of the SW/HW under license
- License Expiry date (next)
- Renewal periodicity (e.g. 3m, 6m, 1y etc.)
- License media (e.g. HW Key, Dongle, SW key, simple key etc.)
- EOL/EOS (End of Life/End of Support)
- Alternative version (if any)
- Minimum Order Quantity (MOQ) for renewal (if applicable and if different from Qty=1)

- Price per licence (if applicable, and eventually discounts by quantity)

5.10.3 The Contractor shall make sure that all licenses are registered with the NCIA NCIRC Service Desk as end-user (if not yet done by the Purchaser).

5.10.4 The SWDL shall be delivered, as part of each site's inventory list, at Site Acceptance Test (SiAT) start – 1W and final version at PSA – 1W.

5.11 Packing Lists

5.11.1 Although the Contractor is not expected to purchase and deliver any material to the destinations sites, should this become necessary the Contractor shall establish the packing lists in such a way as to permit easy identification of the items to be delivered to destinations.

5.11.2 These packing lists shall accompany any shipment for which the Contractor is responsible (if any).

5.11.3 Each individual container/box from a consignment shall have one packing list in weather-proof envelope affixed to the outside of each container/box which indicates exactly what is contained inside. One copy shall also be put inside each container/box.

5.11.4 All deliveries shall be notified by the Contractor through the issuance of a Notice of Shipment to the Purchaser's PM and IPS PoC, at least 10 working days in advance of each delivery.

5.11.5 The Contractor shall await for the Confirmation from the Purchaser of the availability of the destination site before shipment of the equipment takes place.

5.11.6 The Notice of Shipment shall be accompanied by a packing list.

5.11.7 The Packing list shall include the following data:

- the Purchaser's Contract Number
- the NCI Agency project number
- names and addresses of the Contractor and the Purchaser
- names and addresses of the Carrier, Consignor and Consignee (if different from Contractor or Purchaser)
- final destination address and POC
- method of shipment
- for each item shipped:

- Schedule number as per the SSS (Scope of Supply and Services)
- nomenclature
- part number
- NCAGE (coherent with the part number)
- serial number (if applicable)
- quantity
- for each box, pallet and container:
 - box/pallet/container/crate/transit case etc. identification number
 - Number of boxes/pallets/containers/crates/transit cases etc.
 - Weight (metric)
 - dimensions (metric)

5.6.1.1 Each individual box/pallet/container etc. shall have one packing list in weather-proof envelope affixed to the outside of each box/pallet/container etc. which indicates exactly what is contained inside.

5.6.1.2 One copy of the same packing list shall also be put inside each box/pallet/container or package.

5.12 Notice of Shipment

5.12.1 Although the Contractor is not expected to purchase and deliver any material to the destinations sites, should this become necessary, ten (10) working days before each shipment of supplies, the Contractor shall provide the Purchaser with a Notice of Shipment comprising the following details:

- Shipment Date
- Purchaser Contract Number
- Schedule number
- Consignor's and Consignee's name and address
- Number of Packages/Containers
- Gross weight
- Final/Partial Shipment
- Mode of Shipment (e.g. road...)
- Number of 302 Forms used

5.12.2 The Contractor shall ship all required equipment and installation or testing tools to the locations designated by the Purchaser.

5.12.3 The Contractor shall be responsible for resolving any loss incurred in shipping under its responsibility.

5.13 Shipments

5.13.1 Although the Contractor is not expected to purchase and deliver any material to the destinations sites, should this become necessary the Contractor shall make all shipments DDP (Delivery Duty Paid) in accordance with INCOTERMS 2020.

5.14 Warranty

5.14.1 The activities described in this section shall start immediately after the Provisional Site Acceptance (PSA) of each site is granted. PSA is granted after all the installations/integration and testing activities are completed and accepted, including (but not limited to) spares provision (if any and excluding PFEs), trainings completion and requested documentation delivered and accepted.

5.14.2 FSA will be granted once all sites have been PSA-ed, all major and minor deficiencies dragged from PSAs have been solved and Operational Testing and Evaluation is completed. The time between the last PSA and the FSA shall not be more than four (4) working weeks to provide the Contractor with enough time to rework hardware, software and/or documentation as required.

5.14.3 At each PSA, the purchaser will take title of the equipment and will perform the Operation, Maintenance and Support Activities defined in the Maintenance Concept (paragraph 5.2).

5.14.4 The warranty period shall start at each site's PSA and shall complete for all sites/entire system after 12 months from **REACH FSA**, except for extensions due to the Contractor(s)' induced delays.

5.14.5 All materials required to keep the Sites operational will be under the responsibility of the Purchases until the end of Warranty, excluding the material directly provided by the Contractor for the execution of the work defined in this SOW that shall be under Contractor's responsibility.

5.14.6 The warranty shall cover the installation and integration activities, workmanship, adaptations, changes, analyses, documentation, software, firmware, licenses and the equipment specifically provided by the Contractor for the purposes of the current Project and shall exclude all other equipment/elements provided as PFE.

- 5.14.7 In the warranty period, the purchaser will inform the Contractor of any defect on the services (labour, activities) delivered by the Contractor in the scope of this SOW through the issuance of Warranty Claims that the Contractor shall take in charge and solve i.a.w. the given timelines.
- 5.14.8 The contractor shall issue the entire set of warranty claims raised in each quarter from start of warranty in the form of Warranty claims report; the report will be analyzed by the Purchaser to assess the performance of the contractor in the warranty phase and will be discussed by both parties during the Project Review Meetings for acceptance or rejection of the relevant warranty milestone.
- 5.14.9 The Contractor shall warrant that all installation/ Integration/ testing works performed under this Contract and the relevant documentation/data conform to the requirements and are free of any defect during the warranty period.
- 5.14.10 Before PSA and prior to warranty start, the activities, equipment, artefacts (including COTS HW/SW) and documentation shall remain under full responsibility of the contractor and shall be delivered to NCIA, free of major⁵ deficiencies.
- 5.14.11 The Contractor shall manage and correct all major deficiencies as formal class I changes in accordance with the requirements defined in Section 7, starting from the Purchaser's approval of the first Contractor's issued PBL.
- 5.14.12 The Contractor shall manage and correct all minor deficiencies as formal class II changes in accordance with the requirements defined in Section 7, starting from the Purchaser's approval of the first Contractor's issued PBL.
- 5.14.13 The Contractor shall warrant that all equipment and software Installed/ Integrated/ Tested under the Contract are genuine and free of any malicious components, firmware and software to ensure overall security of the System and its supply chain.
- 5.14.14 The Contractor shall warrant that documentation and training provided in the scope of the project reflects the system delivered and the Maintenance and Support Concept.
- 5.14.15 If the documentation does not reflect the product, the Contractor shall provide the updated documentation within ten (10) working days upon Purchaser's request.
- 5.14.16 In case of failures of PFE items due to the execution of this project or failures of Contractor delivered items, the Contractor shall repair/replace the faulty items, at its own expenses and

⁵ [Definition] Major deficiencies are any malfunction, error, anomaly, deviation etc. preventing the System(s), workmanship and documentation to meet the original contract performance, safety, security and interoperability requirements, including RAMT KPIs and Services Levels. Minor deficiencies are all deviations not classified as major.

under its responsibility, with the highest priority allocated and shall be responsible to return the item to the destination site.

- 5.14.17 If the updated/upgraded systems/services are unserviceable for a period of time, during the implementation of this Project, due to Contractor induced failures/delays, the warranty period shall be extended accordingly for all the sites and for the amount of time the system has been unserviceable without any cost to be incurred by the Purchaser.
- 5.14.18 If the Contractor becomes aware at any time before PSA and during warranty that a defect exists in any supplies or services or documentation, the Contractor shall promptly correct the defect.
- 5.14.19 The Contractor shall provide Software patches and SW/HW/FW upgrades, if applicable, whenever a specific issue is reported by the Purchaser until the expiration of the warranty, at no additional cost for the Purchaser.
- 5.14.20 The Contractor shall install new SW/FW (e.g. through upgrades or patches) only after testing in the Reference System (RS) and only after accreditation in the NCI Agency Approved Field Product List (AFPL).
- 5.14.21 The Contractor shall support the Agency with activities, data and documentation required to obtain AFPL approval for all SW and FW delivered in the frame of the project and requiring uplifting (upgrades, patches) w.r.t. the initially approved baseline.
- 5.14.22 All the SW and FW changes (in addition to the HW ones) shall follow the mandatory CM standards, processes and procedures required in Section 7.
- 5.14.23 The Contractor shall provide Technical Assistance to the Purchaser or his representatives until the end of the warranty.
- 5.14.24 Technical assistance information details shall be provided at CDR.
- 5.14.25 Technical Assistance shall be provided from assistance centers located strictly within NATO countries boundaries and by staff who are nationalized citizens of NATO member nations.
- 5.14.26 The Technical Assistance shall provide support in English for requests that correspond to information demands limited to the perimeter of delivered products, evolution proposals, problem reports, or any information needed by the Purchaser or its representatives, which are not included in the supplied technical documentation.
- 5.14.27 Under the warranty arrangements (from the PSA of each site), the Contractor shall provide

24/7 reactive maintenance/support to the Purchaser based on a combination of:

- Full access (credentials) to the KEDB/patches/FW-SW updates/FW-SW upgrades portal of the Contractor relevant to the procured HW/SW/SW products by NCIA
- Full access to live helpdesk (chat, video, phone call) for instructions, documentation, troubleshooting, help on support and maintenance, configuration issues, patching and fixing of any HW/SW problem/failure under purchaser responsibilities (see maintenance/support concept)
- Intervention on-site in 24hrs from the request for any critical issue beyond the Purchaser responsibilities and/or capabilities, providing also On-the-Job- Training (OJT)/instructions/documentation to purchaser personnel during the solution of the problem.

5.14.28 Under the warranty arrangements (from the PSA of each site), the Contractor shall provide continuous advice and pro-active Support/Maintenance to the Purchaser based on a combination of:

- Full access (credentials) to the Knowledge Base (or similar DB) portal of the OEM's/Vendors relevant to the HW/SW products procured by the Purchaser through the Contractor relevant to the procured HW/SW/SW products by NCIA.
- Periodic (e.g. weekly) bulletins/information/notices/recommendations for the improvement of the settings/security of the procured HW/SW/FW by NCIA
- Active monitoring and both periodic and urgent notification of security alerts with temporary workarounds (including fixes and instructions) and follow-on release of security patches or new SW/FW releases
- Support for HW/SW/FW inventories management (CMDB and LBS/PBS management)
- Support, through a Single Point of Contact (SPOC) for HW/SW/FW settings/improvements to increase Security and Performance of the delivered equipment.

5.14.29 All activities and issues arising before and during the warranty period shall be reported in the PRM minutes and Action Items List (AIL) for tracking and closure purposes.

SECTION 6 – QUALITY ASSURANCE/CONTROL

6.1 Definitions

- 6.1.1 AQAP (references 2.1.2), ISO 9000:2015 (reference 2.4.1), Prince2 and ITIL definitions apply unless otherwise specified in this document.
- 6.1.2 Quality Assurance (QA) is a process and set of procedures intended to ensure that a product or service, during its definition, design, development, test and deployment phases will meet specified requirements.
- 6.1.3 Quality Control (QC) is a process and set of procedures intended to ensure that a manufactured product or performed service adheres to a defined set of quality criteria and meets the requirements of the customer.
- 6.1.4 Under the Contract, the terms “QA process” will also include Quality Control process.
- 6.1.5 A “Project document” is a document developed and maintained to help in the management of the project. Typically the plans (amongst which, the Quality Assurance Plan (QAP)) are project documents.
- 6.1.6 The term "NATO Quality Assurance Representative" (NQAR) shall apply to any of the Purchaser appointed Quality Assurance Representative.
- 6.1.7 The term "Contractor Quality Assurance Representative" (CQAR) shall apply to any of the Contractor appointed Quality Assurance Representative.

6.2 Introduction

- 6.2.1 The Contractor shall establish, execute, document and maintain an effective Quality Assurance (QA) programme throughout the Contract’s lifetime.
- 6.2.2 The QA programme shall apply both the contractual requirements and the NATO requirements for quality identified by AQAP 2110, AQAP 2210 and AQAP 2310 and AQAP 2105 (references 2.1 to 2.6), to provide confidence on the Contractor’s capability to deliver products that conforms to the Contractual requirements. If any inconsistency exist between the SOW requirements and the references, the SoW requirements shall prevail.
- 6.2.3 The Contractor’s QA effort shall apply to all services and products (both management and specialist) to be provided under the Contract. This includes all hardware, software, firmware and documentation being developed, designed, acquired, integrated, maintained, or used under the Contract (including deliverable and non-deliverable items like test and support

hardware and software), without limitation.

- 6.2.4 The Contractor's QA efforts shall ensure that procedures are developed, implemented and maintained to adequately control the design, development, production, purchasing, installation, inspection, testing, configuration management and ~~customer~~-Purchaser support of all services and all products, in accordance with the requirements of this Contract.

6.3 Roles and Responsibilities

- 6.3.1 During the entire contract implementation, the NQAR assures the Contractor's and Sub-Contractor's compliance with all Quality related contractual requirements. The Purchaser, through its NQAR, is the authority concerning all Quality related matters
- 6.3.2 The Contractor shall be responsible for assurance and control of quality for all deliverables and associated Contractual products, processes and services through the life-cycle of the Contract.
- 6.3.3 The CQAR shall be accountable for the provision of the QA Plan and the compliance to the defined QA process.
- 6.3.4 The CQAR shall define the major quality checkpoints that shall be implemented while executing the project and the quality process to be used at each checkpoint.
- 6.3.5 The CQAR shall establish and maintain the project quality register that lists all planned and performed quality checks on Contractor deliverables.
- 6.3.6 The CQAR shall be responsible for assessing that the Contractual requirements have been complied with, prior to proposing the Contractual services and products.
- 6.3.7 The CQAR shall report to a distinct manager within the Contractor's organisation at a level equivalent to or higher than the Project Manager.
- 6.3.8 The CQAR shall be the point of contact for interface with and resolution of quality matters raised by the NCI Agency or their delegated NQAR.
- 6.3.9 The Contractor shall support any NCI Agency or their delegated NQAR activity focused on monitoring Contractor activities at Contractor's facilities or other sites related to the development, testing and implementation. In particular, the CQAR shall:
- Make themselves available to answer questions and provide information related to the project;

- Allow the NQAR to inspect and monitor testing activities, as well as management, technical and quality processes applicable to the project;
- Transfer to the NQAR all information deemed necessary to perform the QA activities, on their own initiative or on request by the NQAR.

6.3.10 The Contractor shall ensure that CQAR has the required qualifications, knowledge, skills, ability, practical experience and training for performing their tasks.

6.3.11 The CQAR shall have sufficient responsibility, resources, authority and independence to review and evaluate activities, identify problems and initiate or recommend appropriate corrective actions.

6.3.12 The CQAR shall participate in the early planning and development stages to ensure that all quality related requirements are specified in plans, standards, specifications and documentation.

6.3.13 After establishment of attributes, controls and procedures, the CQAR shall ensure that all elements of the QA Process are properly executed, including inspections, tests, analysis, reviews and audits.

6.3.14 The Contractor, through its CQAR, shall be responsible for product quality control and for submitting to Purchaser acceptance products, supplies and services which conform to contractual requirements only.

6.3.15 The Contractor shall maintain and, when required, deliver objective evidence of this conformance.

6.3.16 The Contractor shall give written notice to the NQAR at least 4 (four) weeks in advance that the services and/or products are being presented for review, testing, verification, validation and acceptance.

6.3.17 Testing shall only be permitted by using test procedures and plans approved by the Purchaser.

6.4 Quality Management System (QMS)

6.4.1 The Contractor shall establish, document and maintain a Quality Management System in accordance with the requirements of ISO 9001:2015

6.4.2 The Contractor's and Sub-Contractor's QMS relevant to performance under the Contract shall be subject to continuous review and surveillance by the cognizant NQAR.

- 6.4.3 The Contractor shall include in orders placed with his Sub-Contractor(s) and Supplier(s), the QMS requirements necessary to ensure the supplies and services covered by the Sub-contract(s) and/or Purchase Orders conform to the requirements of the prime contract.
- 6.4.4 The Contractor shall specify in each order placed with his sub-Contractor(s) and Supplier(s), the Purchaser's and his NQAR rights of access to all premises where contractual work is performed, in order to carry out audits, inspections, tests and other functions as may be required by the NQAR.
- 6.4.5 If sub-contracted quality resources are used, the Contractor's Quality Management process shall describe the controls and processes in place for monitoring the sub-Contractor's work against agreed timelines and levels of quality.

6.5 Quality Assurance process

- 6.5.1 The Contractor's QA process shall ensure that procedures are developed, implemented and maintained to adequately control the development, design, production, testing and configuration of all deliverables.
- 6.5.2 The requirements for these processes shall be derived from the Contract, the QMS, the applicable AQAPs and referenced best practices, in that sequence of priority.
- 6.5.3 The Contractor shall prepare, perform and document System Requirements Review (SRR), Preliminary Design Review (PDR) and Critical Design Review (CDR) according to the contractual requirements and IEEE 15288.2:2014 (reference 2.4.4).
- 6.5.4 The Contractor shall prepare the testing process according to the contractual requirements and ISO/IEC/IEEE 29119 (references 2.4.5, 2.4.6, 2.4.7, 2.4.8).
- 6.5.5 The Contractor shall prepare the test documentation in accordance to the contractual requirements and ISO/IEC/IEEE-29119-3 (references 2.4.5, 2.4.6, 2.4.7, 2.4.8).
- 6.5.6 The Contractor shall perform verification and validation of the Contractual deliverables before proposing them for the Purchaser review and approval.
- 6.5.7 The Contractor's QA process shall be described in the QA Plan as outlined below. The process is subject to approval by the Purchaser.
- 6.5.8 The Contractor shall demonstrate, with the Quality Assurance process, that the processes set up for design, develop, test, produce and maintain the product will assure the product will meet all the requirements.

- 6.5.9 The Contractor shall assure that all the test and procedure used to demonstrate the requirements will be monitored and controlled under the QA process.
- 6.5.10 On request, the Contractor shall provide the Purchaser with a copy of any subcontracts or orders for products related to the contract.
- 6.5.11 The Contractor shall notify Purchaser if a subcontract or order has been identified as constituting or involving risk. It shall be documented in accordance to chapter 6.7.
- 6.5.12 The Contractor shall periodically review the QA process and audit it for adequacy, compliance and effectiveness, and report any changes to the Purchaser NQAR.
- 6.5.13 The Contractor shall ensure that all contractual requirements, including NATO supplements, are included in internal audits.

6.6 The Quality Assurance Plan (QAP)

- 6.6.1 The Contractor shall provide a Quality Assurance Plan (QAP) for review to the Purchaser in accordance with the requirements identified by AQAP-2015 and the SoW requirements.
- 6.6.2 The Contractor's QAP shall be compatible and consistent with all other plans, specifications, documents and schedules, which are utilised under the Contract.
- 6.6.3 All Contractor procedures referenced in the QA Plan shall either be submitted with the plan, or described in the plan and made available for review by the Purchaser upon demand.
- 6.6.4 The QA Plan and all related QA procedures, and all their versions/revisions, shall be subject to NQAR approval based on an agreed checklist.
- 6.6.5 The acceptance of the QAP by the Purchaser only means that the Purchaser agrees to the Contractor's approach in meeting the requirements. This acceptance in no way relieves the Contractor from its responsibilities to meet the requirements stated in this Contract.
- 6.6.6 The Contractor shall review his QA programme periodically and audit it for adequacy, compliance and effectiveness.
- 6.6.7 The Contractor shall ensure that all contractual requirements, including NATO supplements, are included in internal audits.
- 6.6.8 The Contractor shall inform the NQAR of deficiencies identified during internal audit unless otherwise agreed between the NQAR and/or the Purchaser and the Contractor.

- 6.6.9 The Contractor shall include a risk management section within the QAP including the risks connected to the sub-contractors of the Contractor.
- 6.6.10 The Contractor shall make his quality records, and those of his subcontractors, available for evaluation by the NQAR throughout the duration of the Contract.
- 6.6.11 The Contractor shall update the document, as required, from the delivery date of the initial QAP through Final Operating Capability (FOC), under Configuration control. The Contractor shall provide a copy of each new version of the QAP to the Purchaser for review and approval.

6.7 Quality for Project Documents

- 6.7.1 A formal change management process shall be applied to all project documents, including documents naming conventions as defined by the Purchaser and coordinated with the Contractor.
- 6.7.2 Project documents shall be configuration controlled. Each version of a project document is subject to Purchaser approval (unless otherwise specified).
- 6.7.3 The Contractor shall ensure that any change related to the project documents are controlled, with the identity, approval status, version and date of issue are clearly identified.
- 6.7.4 Project documents file names shall not contain any variable part, like version number, reviewer initials or maturity status. Version numbers and maturity status shall be marked in the document content and/or attributes.

6.8 Risks

- 6.8.1 The Contractor and Sub-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.
- 6.8.2 The Contractor shall start planning with risk identification during contract review and updated thereafter in a timely manner. The Purchaser reserve the right to reject QPs, Risk Plans and their revisions.

6.9 Deficiencies

- 6.9.1 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.

- 6.9.2 The ITS shall implement a life-cycle (status, as well as responsibilities, relationship to affected contract requirements, if applicable, and due dates for each recorded deficiency).
- 6.9.3 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.
- 6.9.4 The Contractor shall demonstrate that all deficiencies are solved / closed before product acceptance.
- 6.9.5 When the Contractor establishes that a subcontractor or a Purchaser Furnished Equipment (PFE) product is unsuitable for its intended use, he shall immediately report to and coordinate with the Purchaser the remedial actions to be taken.
- 6.9.6 The Contractor shall ensure that only acceptable products, intended for delivery, are released. The Purchaser reserve the right to reject non-conforming products.

6.10 Support Tools

- 6.10.1 The Contractor shall make all support tools available for demonstration to the NQAR, upon request.
- 6.10.2 The Contractor shall also make available to the Purchaser for review upon request, associated records and documentation, including but not limited to, control, authorization for use, calibration, validation, qualification, as applicable, per respective contract requirement.

6.11 Certificates of Conformity

- 6.11.1 A Certificate of Conformity (CoC) is a document, signed by the Supplier / Vendor of a product, stating that the product conforms to contractual requirements and regulations. A Certificate of Conformity template is available in AQAP-2070 (Section 2.1.2).
- 6.11.2 The CoC, provides an evidence that the items produced or shipped comply with test procedures and quality specifications prescribed by the ~~customer~~ Purchaser.
- 6.11.3 The CoC requirements do not apply to Purchaser Furnished Equipment (PFE).
- 6.11.4 The Contractor is accountable for the conformance to requirements, of products provided to the Purchaser.
- 6.11.5 The Contractor shall deliver all the CoC's for Commercial-off-the-Shelf (COTS) products (software (including firmware) and hardware) released by the COTS Vendors.



- 6.11.6 The CoC's delivered by the Contractor shall be part of the acceptance data package of the product.
- 6.11.7 The Contractor shall provide a CoC at release of product to the Purchaser unless otherwise instructed.

SECTION 7 – CONFIGURATION MANAGEMENT

7.1 Configuration Management

- 7.1.1 Although the Contractor is asked to install/ integrate/ test PFEs (COTS HW, SW and FW), the Contractor shall be responsible for establishing and maintaining an effective Configuration Management (CM) organisation to implement the CM programme and manage the CM functions (Configuration Identification and Documentation, Configuration Control, Configuration Status Accounting, Configuration Audits).
- 7.1.2 The Contractor shall establish and maintain the CM policies, processes and practices in conformance with STANAG 4427 Ed. 3 and underpinning ACMPs (ACMP-2000, ACMP-2009, ACMP-2100) and ISO 10007:2017.
- 7.1.3 The Contractor shall include a Configuration Management Plan (CMP) as part of the PIP describing all aspects of Configuration Management following the requirements set in the ACMP-2009-SRD-40.1 ref. # 4.3.C.
- 7.1.4 The Contractor shall implement the CM activities for any hardware, software and firmware delivered, integrated, tested and/or customized and document provided, used or defined in the frame of the project and shall fully integrate the COTS elements-data in order to implement a unique CM framework.
- 7.1.5 The Contractor shall define the CI trees (Baselines), hierarchically structured, clearly defining and identifying each node/leaf as Configuration Item (CI), Hardware Configuration Item (HWCI), Computer Software Configuration item (CSCI), Hardware Parts (HWP) or (Computer Software Component (CSC) in accordance with the guidelines provided in the above defined ACMPs and ISO.
- 7.1.6 The Contractor shall define and deliver, as a minimum the following Baselines:
- Allocated Baseline (ABL): it starts to be developed at the beginning of the design phase (PDR); it is established and “frozen” at the end of the design phase (at CDR - it is also known as “as-designed” baseline);
 - Product Baseline (PBL): It starts to be developed at the beginning of the production phase. It is established and “frozen” at the end of the production phase (at factory integration/test).
- 7.1.7 The Contractor shall deliver the first ABL at PDR and the final ABL at CDR
- 7.1.8 The Contractor shall deliver the first PBL at CDR + 4W and then at SiAT and whenever

changes occur during the production, testing and warranty phases.

- 7.1.9 Both the ABLs and the PBLs shall be maintained under Configuration Control and subject to change management processes and procedures (ECPs, RFCs) in accordance with STANAG 4427 Ed. 3 and underpinning ACMPs.
- 7.1.10 The ABL and the PBL shall be delivered by the Contractor, with incremental contents, using the NCI Agency templates listed below:
- AI 16.32.04 - ABL Template
 - AI 16.32.05 - PBL Template
- 7.1.11 The Contractor shall use the Instructions and templates provided by the purchaser to issue any ECPs and RFCs in accordance with the following applicable AIs:
- AI 16.32.02 – Preparation of ECP forms
 - AI 16.32.02 Annex A – ECP Form
 - AI 16.32.03 – Preparation of RFC forms
 - AI 16.32.03 Annex A – RFC Form
- 7.1.12 All the baselines shall be developed, maintained and fully documented in the Contractor's PLM (Product Lifecycle Management) tool.
- 7.1.13 For each Baseline and relevant modifications (in accordance with the Change Request/Engineering Change Proposal/Engineering Change Order - CM CR/ECP/ECO - processes) the Contractor shall export the baselines in the form of CMDBs, covering as a minimum the following relationships:
- Contract functional/non-functional requirements to Functional elements of the FBL (the FBL shall not be delivered but shall be defined and maintained by the Contractor)
 - Functional Elements of the FBL to Major CIs of the ABL
 - Major CIs of the ABL to Full CIs (CIs, HW CIs, CSCIs, HWPs, CSCs) tree (PBL)
 - Major CIs of the PBL to Services/Sub-Services delivered by the System (mapping of CIs vs Services and vice versa)
- 7.1.14 The Contractor shall incorporate in the baselines, under a unique hierarchical tree, all the information relevant to the OEMs/COTS hardware, software and firmware used and integrated in the System.

7.1.15 Each element of the PBL shall include as minimum (but not be limited to) the following pieces of information (in accordance with the type of item):

- Position in the structure (hierarchical level or indenture code)
- Physical location (Reference Designator or similar positional code) coherent with the As-Built Drawings and manuals
- Type of Configuration Item (CI, HWCI, CSCI, HWP, CSC)
- Type of MRI/MSI, coherent with the LBS/PBS
- Item identifiers (Part Number – P/N, Cage Code, Nomenclature, revision/issue, release etc.)
- Asset Data (SMR Code, Price, Price UOM, MOQ, start of warranty/licence validity etc.)
- Inventory Data (Serial Number - S/N or License number if applicable etc.)
- CI documentation:
 - For HWCIs/HWPs: specifications, datasheet, Certificates of Conformity (CoC), Declaration of Conformity (DoC), Items Setting Documents (ISD – how to configure HW/SW/FW) etc.
 - For HWCIs/CIs: interconnection diagrams, interface specifications/control documents, Test procedures, Test records, integration data, customization/setting procedures etc.
 - For CSCIs/CSCs: SW Release Notes (SRN), SW test data records, SW metrics (type of language, Line of Code, number of function points etc.), SW Source Code (if specifically generated or modified/adapted/customized in the frame of the project), SW Installation files, SW Version Description Documents (VDDs), SW installation/customization procedures, SW settings, SW operating manual etc.
- Alternative (P/N, Cage Code, Nomenclature, revision/issue, release etc.)
- NATO Stock Number (NSN)

7.1.16 The Contractor shall prepare and make available the PBLs and shall prepare and attend as a minimum the following Physical Configuration Audits (PCA) events:

- Pre-SiAT (Site Acceptance Test) PCA – Before SiAT to determine the to-be-tested Products baseline
- Post-SiAT PCA – Immediately after SiAT to determine the applicable PBL immediately after SiAT
- (New) Spares and consumables Audit (if any) at PSA – three (3) working weeks before PSA.



7.1.17 All the hardware, software and firmware elements and media and IPS and System documentation provided in the scope of this project shall be properly identified, coherent and consistent with the CM baselines in use at the time of issuance/installation.

SECTION 8 – TEST, VERIFICATION, VALIDATION AND ASSURANCE (TVVA)

8.1 Introduction

- 8.1.1 This section details the Test, Verification, Validation and Assurance (TVVA) processes and requirements to be applied and performed under this Contract, which are required for the verification and validation of the requirements set forth under this Contract by the Purchaser.
- 8.1.2 All deliverables supplied by the Contractor under this contract shall be verified and validated to ensure they meet the requirements of this contract. Both fit-for-use and fit-for-purpose will be assessed using a quality-based approach.
- 8.1.3 The verification and validation approach will not only be applied to delivered equipment, but also interfaces and interoperability with existing NATO and/or national equipment, here considered as Purchaser Furnished Equipment (PFE).
- 8.1.4 The verification and validation of PFE is out of the scope of this document and the contract.

8.2 TVVA activities

- 8.2.1 The Contractor shall have the overall responsibility for meeting the TVVA requirements and conducting all related activities. This includes the development of all TVVA documentation required under this Contract (see Table 2 - Test Documentation).
- 8.2.2 The Contractor shall be responsible for the planning, execution and follow-up of all TVVA events. The Purchaser will assist in preparations by reviewing and providing feedback on all Contractor produced configuration items. The Purchaser will also provide testing and engineering Subject Matter Expertise (SME) during all TVVA events to witness and assist with these events.
- 8.2.3 The Contractor shall demonstrate to the Purchaser that there is a testing process in place for the project, supported by Contractor Quality Assurance (CQA).
- 8.2.4 Where requested by the Purchaser, the Contractor shall provide test data to support all TVVA activities.
- 8.2.5 The Purchaser shall provide subject matter experts (SME) during each test event, as well as TVVA Engineers and an NQAR.
- 8.2.6 The Contractor shall have the overall responsibility for meeting the TVVA requirements and conducting all related activities defined in the Table 1 below, describing TVVA phases. Each phase may have one or more events to complete the full scope.

TVVA Phases	Scope	Purchaser Involvement
TVV Review	Activities required to verify the overall test strategy to ensure the project met SOW requirements.	Review Master Test Plan (MTP), Event Test Plans (ETPs), Test Cases
Qualification Testing	Activities executed to ensure the system meets necessary design requirements, and provide a baseline for subsequent acceptance tests	<p>Review contractor execute qualification/dry-run tests in preparation for formal IVV activities.</p> <p>Participate: Dry Run (Optional Purchaser participation), TRR, Test Execution, Event Review Meeting (ERM)</p>
Formal Verification and Validation	<p>Independent assessment performed with Purchaser and led by Contractor to determine whether or not a system satisfies user needs, functionality, requirements, and user workflow processes etc. before it gets into operation.</p> <p>Product Quality Criteria, for the following tests:</p> <p>System Integration Test (SIT) – Requirements based testing, focused on verifying integration of the different components together and with any external interface as defined by the SOW</p> <p>User Acceptance Test (UAT) – Scenario based testing, focused on validating the system as per user needs.</p> <p>Security Tests – Tests focused on ensuring the security criteria are met.</p> <p>System Acceptance Test (SAT) – Tests focused on ensuring compliance with the requirements outlined in the SOW.</p>	<p>Review: Event Test Plan, Test Cases, Test Report, Test Data, Test Environment Baseline, Existing defects</p> <p>Participate: TRR, Test Execution, Event Review Meeting (ERM). User Reviews (including internal users)</p>

<p>RFC Support</p>	<p>To provide evidence that the product under evaluation met the requirements for the inclusion on the AFPL and to obtain the Approval to Operate (ATO). Change Manager to review the test execution, additional evaluation can be requested by Change Managers. Under normal circumstances, all required inputs are generated from TVVA activities</p>	<p>Provide test report and evaluation evidences as required by Change Manager. Under normal circumstances those are IVV Test Report, Security Report and System Administration Notes.</p> <p>IVV Lead: Test Readiness Review (TRR), Test Execution, Test Reports and Event Review Meeting (ERM)</p>
<p>Site Acceptance Phase (SiAT)</p>	<p>To ensure that the specific Tier 3 site/node is installed properly per site/node installation plan and the service meets the requirements stated in the SOW. Site Acceptance Testing is also to ensure compatibility and integration of the product with the site environment. Migration related tests are also covered under this tests. This includes integration with PFE.</p>	<p>Review: Test Plan, Test Cases, Test Report, Test Data, Test Environment Baseline, Known issues/Defects reported and accepted by Purchaser, SiAT Checklist (for all sites).</p> <p>Participate: TRR, Test Execution, Event Review Meeting (ERM)</p>
<p>Operational Test and Evaluation</p>	<p>To ensure that all the Operational Acceptance Criteria (OAC) such as performance and availability have been successfully implemented. Sites are successfully integrated and tested on the network level. Demonstrate that all components of the System/Application have been integrated (including other systems) to meet all OACs as well as all security requirements defined in the Security Accreditation Documentation Package. Ensure end to end delivered system works as expected and can interoperate with other Purchaser equipment</p>	<p>Review: Event Test Plan, Test Cases/Scripts, Test Report, Test Data, Test Environment Baseline, Existing defects</p> <p>Participate: TRR, Test Execution, Event Review Meeting (ERM)</p>

Table 1 - List of TVVA Phases

8.3 Deliverables

8.3.1 The Contractor shall provide a System Test Documentation Package, following documentation templates provided by the Purchaser that is comprised of the following documents defined in Table 2 below:

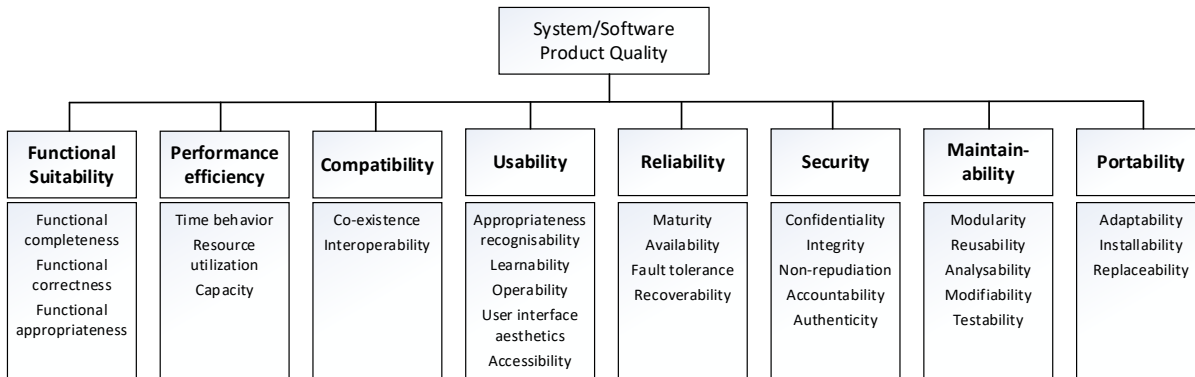
Work Product Name	Sent to Review/Approve
Master Test Plan (MTP)	First draft 4 weeks after EDC
Event Test Plan (ETP)	2 weeks before TVVA Event
Site Installation Specification (SIS)	2 weeks before TVVA Event
Test Cases	2 weeks before TVVA event. First draft 4 weeks after contract award
Test Completion Report	1 week after TVVA event
Defect Report / Off-Specification Report	2 weeks before TVVA Event
Dry Run Report	2 weeks before TVVA Event
Requirements Traceability Matrix (RTM) updated with test-related information	Embedded within the MTP and updated per test event

Table 2 - Test Documentation

8.4 Master Test Plan (MTP)

- 8.4.1 The Contractor shall identify and describe in the Master Test Plan (MTP) which best practices and international standards will be applied and how.
- 8.4.2 The Contractor shall produce a Master Test Plan (MTP) to address the plans for each TVVA activity listed in this document. The Purchaser will monitor and inspect the Contractor’s MTP activities to ensure compliance.
- 8.4.3 The Contractor shall keep the Master Test Plan always up to date.
- 8.4.4 The Contractor shall describe how the Quality Based Testing is addressed and implemented in the MTP. Figure 2 - Product Quality Criteria is based on ISO 25010 and should be used as product quality criteria model.

Figure 2 - Product Quality Criteria



- 8.4.5 The Contractor shall describe all formal TVVA activities in the MTP with a testing methodology and strategy that fit the development methodology chosen by the project.
- 8.4.6 The Contractor shall provide in the MTP the schedule, location and scope for all the events to be run, specifying to which phase they belong. When the contractor identifies that multiple events are required for a phase, this SHALL also be specified in the MTP.
- 8.4.7 Together with the MTP, the contractor shall provide a defect reporting and management process to be applied during the TVVA activities.
- 8.4.8 The Contractor shall describe how defects/non-conformances encountered during TVV events will be reported, managed and remedied.
- 8.4.9 The MTP shall include the Contractor’s approach to Test Reviews including Test Readiness Reviews and Event Review Meetings for each TVVA event.
- 8.4.10 The Contractor shall provide Contractor’s provisions and strategy for building/maintaining of the Reference Environment in MTP.

8.5 Event Test Plan (ETP)

- 8.5.1 The Contractor shall create an Event Test Plan (ETP) per each event for approval no later than two (2) weeks prior to the execution of the tests, unless differently stated in a work package. Detailing all the information required for that event. The ETP shall follow the template provided by the Purchaser.
- 8.5.2 The Contractor shall describe in the event test plan what training (if any) will be provided prior to formal TVVA events.
- 8.5.3 The Contractor shall identify, in the ETP, which environment(s) to be used at each TVVA

event and the responsibilities for configuration control, operation and maintenance of the environment

8.5.4 The ETP shall describe when an agreement shall be reached between the Contractor and the Purchaser on the defect categorization and defect priority of failures encountered, as well as a way forward (if either at the end of each day of a TVVA event or at the Event Review Meeting). If agreement is not reached, the disputed items shall be escalated to the Purchaser's and Contractors' Project Managers.

8.5.5 The contractor shall provide together with ETP the following documentation:

- Design documentation;
- Approved Baselines,
- Description of System Under Test up until CI level (HW/SW Configuration, As-Built Drawings/Low level Diagram, Interface descriptions),
- Dry Run Report
- Defect Report (as applicable)
- Off-Specification Report (Deviation, waiver as applicable)
- Approved Change Request (as applicable)

8.6 Test Cases

8.6.1 The Contractor shall submit the draft test cases for the TVVA event to the Purchaser for approval no later than two (2) weeks prior to the execution of the tests, unless differently stated in a work package. The Purchaser shall provide comments or approval within one (1) week of receipt. The purchaser shall have the final version of the test cases and Event Test Plan available two working days prior to the TRR for a specific TVVA event.

8.6.2 The Contractor shall develop test and use cases to verify and validate all requirements in the SOW, requirements specifications and final design. The test cases shall follow the template provided by the purchaser.

8.7 Requirements Traceability Matrix (RTM)

8.7.1 The Contractor shall produce and maintain a Requirements Traceability Matrix (RTM), which includes all functional and non-functional requirements, to track the TVVA status of all requirements throughout the Contract execution (especially during the TVVA activities). The RTM shall also trace the requirements to the design. It shall also define how the requirements will be validated or verified at each of the TVVA activities:

- The verification method: Inspection, Analysis, Test or Demonstration
- Corresponding TVVA phase(s) for each requirement

- Coverage Status

8.7.2 The Purchaser shall review and approve the proposed RTM.

8.7.3 The Contractor shall maintain the RTM updated during the project lifecycle.

8.8 TVVA Events and results

8.8.1 The Contractor shall conduct testing during the Project lifecycle compliant with the following requirements:

8.8.1.1 The Contractor is responsible for conducting all testing during the Project lifecycle. The contractor shall provide evidence to the Purchaser of the results of these testing activities. The Contractor shall respond to any Purchaser clarification requests regarding test results or performance within two working days.

8.8.1.2 The Contractor shall provide status reports to the Purchaser regarding verification and validation activities during the planning/design and development phases. The Contractor shall provide Test Completion Report to the Purchaser following the completion of any TVVA event. The Purchaser will approve the report and its findings within two business days.

8.9 Test Readiness Review (TRR)

8.9.1 The Contractor shall conduct a Test Readiness Review (TRR) meeting two (2) days prior to the test events. The TRR shall ensure that all entry criteria for the events have been met. Documentation that requires review by the Purchaser prior to a TRR, as defined in the Master Test Plan (MTP), shall be provided no less than 1 week prior to TRR.

8.9.2 The Purchaser has the right to cancel the TRR and/or any formal test event if the evidence demonstrates that execution of the test event will not be effective.

8.10 Event Review Meeting (ERM)

8.10.1 The Contractor shall convene an Event Review Meeting (ERM) as defined in the MTP. The ERM shall ensure that the event results, defect categorization and a way forward to fixing the defects (if required) is agreed upon by the Contractor and the Purchaser. If agreement is not reached, the disputed items shall be escalated to the Purchaser and Contractor Project Managers.

8.11 TVVA Event

- 8.11.1 An event starts with the Test Readiness Review (TRR) and finishes with the Event Review Meeting (ERM).
- 8.11.2 During formal TVVA phases, a daily progress debrief shall be scheduled. Participation to the daily progress debrief will be agreed between Purchaser and Contractor. The aim of the debrief is to get a common understanding on what tests were run, which passed, which failed, and whatever defects were reported.
- 8.11.3 For each TVVA event, the Contractor shall provide log/record of the event, including but not limited to individual test results, defects found, requirement coverage, test execution durations, deviations during execution and sign-off for each result by both the Contractor and Purchaser.
- 8.11.4 At the end of the project, the Contractor shall provide the final version of all artefacts (regardless of format) created during the execution of all TVVA activities.

8.12 Test Completion Report

- 8.12.1 Test completion report is a summary of the test event activities and shall contain as a minimum:
 - Requirement coverage against test cases
 - Test cases with test results
 - List of defects
 - Any mitigations/Waivers as applicable

8.13 Waivers

- 8.13.1 The Contractor may request a Test Waiver if the Contractor has previously successfully completed qualification testing to national, or international standards for assemblies, subassemblies components or parts. The Purchaser, after review of test waivers and analysis of their impact, reserves the right to require test and certification of the modified equipment at no cost to the Purchaser. The Purchaser has the right to reject any test Waiver (see Table 6).
- 8.13.2 The Contractor shall record and log all waiver requests along with their resolution submitted for the Purchaser's approval.

8.14 Test Defect Categorization

- 8.14.1 The Contractor shall use the Purchasers' categorization nomenclature for all defects and

non-compliances.

8.14.2 Should a failure be identified during a TVVA event/activity, a defect shall be recorded. Once the event has concluded, the defect shall be reviewed during the event review meeting to agree on the severity, priority and category. The event test report shall then report the disposition of all defects recorded during the event and the defect management system shall be updated accordingly. Classification shall follow the definitions in Table 3:

Attributes	Definition
Severity	The severity of a defect is the degree of impact that the failure has on the development or operation of a component, a system or a user function. The severity SHALL initially be proposed by the tester but SHALL officially be set in agreement with all the stakeholders. When agreement cannot be reached, the Purchaser's PM will set the severity.
Priority	The priority of a defect defines the order in which defects SHALL be resolved. The priority of the defect SHALL initially be proposed by the tester but SHALL officially be set in agreement with all the stakeholders. When agreement cannot be reached, the Purchase's PM will set the priority.
Category	The type of observation identified during the execution of a test case.

Table 3 - Definitions for Defect Categorization

8.15 Severity

8.15.1 According to their severity, defects shall be classified as one of the following in Table 4:

Severity	Definition
Critical	The failure of testing of a requirement. The failure results in the termination of the complete system or one or more component of the system. The failure causes extensive corruption of data. The failed function is unusable and there is no acceptable alternative method to achieve the required results
Major	A significant failure that causes severely impaired functions but does not prevent operational processing. Applies to conditions under which the complete system or one or more component of the system are partially inoperative, but are still usable by the users. A work around may be available, but it may require manual intervention. Examples: Absence of expected modules/ object or Unit failure of business operational process that affects a large group of users * complete failure of a module

Severity	Definition
Moderate	The failure does not result in the termination and all functions are available but causes the system to produce incorrect, incomplete or inconsistent results. When resources are available and budgeted, should be resolved.
Minor	The failure does not result in termination and does not damage the functioning of the system. The desired results can be easily obtained by working around the failure
Cosmetic	The failure is related to the look and feel of the application, typos in a document or user interfaces (amongst others), and not part of the immediate usability or contractual requirements. The failure does not adversely affect the overall system operation.

Table 4 - Classification of defects based on severity

8.16 Priority

8.16.1 According to their priority, defects shall be classified as one of the following in Table 5:

Priority	Description
Urgent	The defect SHALL be resolved as soon as possible. Required to complete independent verification and validation activities.
Medium	The defect SHALL be resolved in the normal course of development activities. It can wait until a new build or version is created.
Low	The defect is an irritant which should be repaired, but repair can be deferred until after more serious defects have been fixed.

Table 5 - Priority Classes for Defect Classification

8.17 Category

8.17.1 According to their category, deficiencies shall be classified as one of the following in Table 6.

Category	Description
Defect	An imperfection or deficiency in a work product where it does not meet its requirements or specifications. This category of defect could drive to the creation a Class II (Product Correction) Engineering Change Proposal (ECP).
Enhancement	This type of defect is used to record an Improvement to the product baseline. This category of defect would typically drive to the creation of a Class I (Product enhancement) ECP.
Document	This category is used to record deficiencies encountered in the system documentation (test cases, test procedures, RTM, test plan, manuals, design, procedures).

Category	Description
Clarification	This category is used to record deficiencies encountered during the test execution, which must be clarified.
Waiver	This category is used to record when a waiver is required to address a specific observation or deficiency.

Table 6 - Deficiency Categories

8.18 Tools

8.18.1 The Contractor shall generate and deliver automated test procedures/cases compatible with Purchaser test management and automation tools.

8.18.2 The Contractor shall make use of automated testing and supporting testing tools (test management, requirement coverage, defect management, etc.) to the maximum applicable extent, for all system development, implementation, internal and formal tests. The process and proposed supportive tools shall be described in the Master Test Plan (MTP). In areas where the Purchaser already uses specific tools, the Contractor shall make use of the tools in use by the Purchaser. Note: the Purchaser (IVVQ) is using JiraData Center and Zephyr Scale for test management automation and these are accessible only from NATO Restricted network using REACH laptops.

8.18.3 Tools supporting requirements coverage, defect management and test management shall be selected and hosted by the purchaser and used by the Contractor. For any internal work, the Contractor may use their own internal tools, but the tools used for the contractor’s internal work shall be able to natively interface with the tools selected and hosted by the Purchaser in order to keep all TVVA related data for the project in the purchaser tools.

SECTION 9 – HEALTH AND SAFETY

9.1 General Safety Requirements

- 9.1.1 The Contractor shall undertake all measures to comply and ensure compliance with respective Regulations for Industrial Safety applicable throughout this Contract.
- 9.1.2 The Contractor shall comply with the national legislation of respective territorial Host Nations concerning job accidents, incident prevention and hygiene at work.
- 9.1.3 The Contractor shall also make legal arrangements for protection of the life and security of all its 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.
- 9.1.4 When working at the Purchaser's facilities, the Contractor shall comply with all safety and security directives and procedures applicable to the site, contracted scope of work and premises in which the contractor will perform their duties.
- 9.1.5 The detailed procedures, instructions and guidance shall be obtained from the site commander/ the principal, the security manager and Health & Safety manager respectively at given site.
- 9.1.6 The Contractor shall learn respective procedures.
- 9.1.7 The Contractor shall confirm in writing that their understood the procedures.
- 9.1.8 The Contractor shall confirm in writing commitment to comply with the procedures and apply them in practice.
- 9.1.9 The Contractor shall provide personnel mentally and physically capable of undertaking their duties as stipulated in the subject contract.
- 9.1.10 The Contractor is responsible for provision of Personal Protective Equipment (PPE) for its employees accordingly to the activities and scope of works stipulated in the subject contract.
- 9.1.11 The 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 or its equivalent of respective territorial Host Nation in North America.

9.2 Hardware Requirements

- 9.2.1 The hardware shall be designed to operate using an external mains power supply conforming to International Electrotechnical Commission standard IEC 60038:2009, 400/230 V, 50 Hz.' or its national equivalent of respective territorial Host Nation in North America.
- 9.2.2 The hardware shall function without degradation under the existing environmental conditions.
- 9.2.3 All conductors and hardware shall be rated for current carrying capacity in accordance with the applicable industry standards.
- 9.2.4 All cables shall have non-toxic, non-flammable coating.
- 9.2.5 All cables shall be halogen-free, low smoke, thermoplastic insulated and sheathed cables in compliance with IEC 62821 or its national equivalent.
- 9.2.6 Free movement of cables shall be assured when equipment is pulled out for maintenance/repair.
- 9.2.7 Wires and cables shall be placed and protected as to prevent contact with rough irregular surfaces and sharp edges and to prevent wear due to vibration.
- 9.2.8 Cables connecting to components mounted onto doors or panels shall be protected so that no possibility of damage arises during opening and closing of doors or panels.
- 9.2.9 Cable harnesses shall be routed away from heat generating equipment and no wire or cable connection shall be in tension.
- 9.2.10 For the dimensioning of the bending radius of cables the regulations of VDE 0298, part 3 or equivalent shall be followed.
- 9.2.11 All soldered connections shall be clean and smooth in appearance and shall provide excellent electrical conductivity.
- 9.2.12 The insulation of soldered wires shall not show damage from the heat of the soldering operation.
- 9.2.13 Dissimilar metals shall not be used in intimate contact unless suitably protected against electrolytic corrosion.
- 9.2.14 Any equipment supplied under this Contract shall include interfaces to enable connection to

the grounding system in accordance with respective national safety regulations and INFOSEC requirements.

- 9.2.15 Safety grounding interfaces shall be in accordance with safety regulations, including IEC 60364-5-54:2011 or its national equivalent of respective territorial Host Nation in North America.
- 9.2.16 The hardware shall be designed and constructed in such a way that it does not run in a hazardous condition or put human safety at risk.
- 9.2.17 The Contractor shall design and/or select the hardware on the basis of inherent safety features that protect not only the human operators and maintainers but also the equipment itself.
- 9.2.18 The hardware shall be designed in such a way that no special or difficult techniques that require unusual dexterity or skill in removing or installing items is required.
- 9.2.19 Materials used in the hardware, under the specified environmental and service conditions or as a result of heating due to conflagration, shall not liberate:
 - 9.2.19.1 Gases that combine with the atmosphere to form an acid or corrosive alkali.
 - 9.2.19.2 Toxic or corrosive fumes that would be detrimental to the performance of the equipment or health of personnel.
 - 9.2.19.3 Gases that will produce an explosive atmosphere.
- 9.2.20 No hazardous materials (of any kind) shall be used in the construction of the hardware.
- 9.2.21 Glass fibre 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.
- 9.2.22 The hardware shall be provided with safety markings and labels that meet following requirements:
 - 9.2.22.1 Safety markings and labels shall be provided identifying any potential hazards to personnel.
 - 9.2.22.2 Warning labels shall be attached wherever there is any potential of heavy lifting, specific handling guidance, electrical, chemical, excessive noise, electromagnetic radiation or heat hazard or a potential hazard caused by human contact with materials, particularly when

removal of covers will expose the hazard.

- 9.2.22.3 Safety markings shall be readily visible during operation and maintenance conditions.
- 9.2.22.4 Warning markings shall be as permanent as the normal life expectancy of the equipment on which they are affixed and shall be placed as close as possible to the point of danger.
- 9.2.22.5 All matters of safety including but not limited to hot surfaces, mechanical hazards, electrical shocks and radiation hazards shall be fully and clearly addressed in the user operations and technical manuals.
- 9.2.22.6 Training and other provided documentation (for example deployment manual, user manuals, maintenance manuals etc.) shall prominently identify hazardous situations and the preparation, precautions and actions to avoid and contain them.
- 9.2.22.7 All warning instructions shall be provided in English and in the official language of the territorial Host Nation.
- 9.2.23 Noise generated by the hardware 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.
- 9.2.24 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.
- 9.2.25 Projecting and overhanging edges shall be kept to a minimum.
- 9.2.26 Edges and corners shall be rounded.
- 9.2.27 When rounding of edges and corners is not possible, protective covers shall be applied.
- 9.2.28 When protective covers are not possible or not reasonably practical for installation, sharp edges shall be marked with appropriate safety labels and marking.
- 9.2.29 When packed, the system shall not include any protruding point which could either be damaged or damage persons or property during transportation.

9.3 Environmental Protection

- 9.3.1 The Contractor shall take all reasonable and practical measures to protect the public and his

own employees against accidents, and to safeguard the environment and apply the best practices available in the field.

- 9.3.2 Environmental requirements shall be implemented and verified by the Contractor, as a minimum, in accordance with European Union environmental protection regulations and the national implementation references (i.e. law, regulation) pursuant to the EU Directives or national equivalents for North America deliveries.
- 9.3.3 The Contractor shall consider the environmental impact of the delivered hardware during its life cycle and disposal, and the hardware documentation shall provide the appropriate recommendations to the user.

Annex A – Bill of Materials

A.1 Schedule A

The following tables detail the NIPS, FPC, and Packet Broker requirements for all sites.

The NIPS have been specified in three different configurations of increasing performance designated NIPS 1 to 3, there is a column to designate optional Network Modules (NetMods) when required. The FPC product is a modular system where performance and capacity can be adjusted by combining multiple appliances and storage modules. The FPC table lists the number of FPC Decoder and Concentrator appliances assigned per site, each of which comes with a dedicated attached storage appliance. Alternatively small sites will receive an FPC Hybrid, which is a single appliance containing combined Decoder and Concentrator functionality in combination with internal storage.

A.2 NODCERS Equipment

System	Equipment	Type	Simulated Tier	Quantity
FPC	NetWitness Decoder	Physical	3	1
FPC	NetWitness Concentrator	Physical	3	1
FPC	NetWitness ESA Server	Virtual	2	1
FPC	NetWitness Admin Server	Virtual	2	2
FPC	NetWitness Broker	Virtual	2	1
NIPS	Firepower 2130	Physical	3	1
NIPS	Firepower Management Centre	Virtual	2	1

A.3 Table of NIPS Phases and Sites

Command	City	Country	Class	NIPS Type	NIPS Qty	NetMods
JFC	Brunssum	NL	NR	2	1	
JFC	Brunssum	NL	NS	2	1	
NAPMA	Brunssum	NL	NR	1	1	
NATO HQ (NEW HQ)	Evere (Brussels)	BE	NS	2	1	
NCIA	The Hague	NL	NR	2	1	1 x 6x10G- SR
NCIA	The Hague	NL	NS	2	1	1 x 6x10G- SR
NETMA	Halbergmoss (Munich)	DE	NR	1	1	
NSPA	Capellen	LU	NR	2	1	1 x 6x10G- SR
PIA SHAPE	Casteau (Mons)	BE	NR	2	2	4 x 6x10G- SR
PTC	Brunssum	NL	NS	1	1	
SHAPE T3	Casteau (Mons)	BE	NR	3	1	2 x 8xSFP+
SHAPE T3	Casteau (Mons)	BE	NS	3	1	2 x 8xSFP+
JFC Naples	Lago Patria	IT	NR	3	1	2 x 8xSFP+
JFC Naples	Lago Patria	IT	NS	3	1	2 x 8xSFP+
LANDCOM	Izmir	TU	NR	2	1	1 x 6x10G- SR
LANDCOM	Izmir	TU	NS	2	1	
NAHEMA	Aix en Provence	FR	NR	1	1	
PIA Naples	Lago Patria	IT	NR	2	2	4 x 6x10G- SR
ACT HQ	Norfolk	US	NR	2	1	1 x 6x10G- SR
ACT HQ	Norfolk	US	NS	2	1	
PTC	Northwood	GB	NS	2	1	
PTC	Norfolk	US	NS	2	1	
CSO	Neuilly-sur-Seine (Paris)	FR	NR	1	1	

A.4 Table of FPC Phases and Sites

Command	City	Country	Class.	Decoders	Concentrators	Hybrids
AIRCOM	Ramstein	DE	NR	2	1	
AIRCOM	Ramstein	DE	NS	2	1	
CAOC	Uedem	DE	NR			1
CAOC	Uedem	DE	NS			1
JFC	Brunssum	NL	NR	2	1	
JFC	Brunssum	NL	NS	2	1	
NAEW	Geilenkirchen	DE	NR	2	1	
NAEW	Geilenkirchen	DE	NS	2	1	4
NAPMA	Brunssum	NL	NR			1
NATO HQ	Evere (Brussels)	BE	NR	4	2	
NATO HQ	Evere (Brussels)	BE	NS	2	1	
NCIA	The Hague	NL	NR	3	1	
NCIA	The Hague	NL	NS	2	1	
NETMA	Halbergmoss (Munich)	DE	NR			1
NSPA	Capellen	LU	NR	2	1	
NSPA	Betzdorf	LU	NR	2	1	
NSPA	Capellen	LU	NS	2	1	
PIA SHAPE	Casteau (Mons)	BE	NR	8	44	
PTC	Brunssum	NL	NS	2	1	
SHAPE T3	Casteau (Mons)	BE	NR	8	4	
SHAPE T3	Casteau (Mons)	BE	NS	4	2	

Command	City	Country	Class.	Decoders	Concentrators	Hybrids
CAOC	Torrejon	ES	NR			1
CAOC	Torrejon	ES	NS			1
CMRE	La Spezia	ES	NR			1
DACCC	Poggio Renatico	IT	NR			1
DACCC	Poggio Renatico	IT	NS			1
JALLC	Monsanto	PT	NR			1
JALLC	Monsanto	PT	NS			1
JFC Naples	Lago Patria	IT	NR	8	4	
JFC Naples	Lago Patria	IT	NS	4	2	
JFTC	Bydgoszcz	PL	NR	2	1	
JFTC	Bydgoszcz	PL	NS	2	1	
LANDCOM	Izmir	TU	NR	2	1	
LANDCOM	Izmir	TU	NS	2	1	
NAHEMA	Aix en Provence	FR	NR			1
PIA Naples	Lago Patria	IT	NR	8	4	
ACT HQ	Norfolk	US	NR	2	1	
ACT HQ	Norfolk	US	NS	2	1	
JWC	Stavanger	NO	NR	2	1	
JWC	Stavanger	NO	NS	2	1	
MARCOM	Northwood	GB	NR	2	1	
MARCOM	Northwood	GB	NS	2	1	
PTC	Northwood	GB	NS			1
PTC	Norfolk	US	NS			1
CSO	Neuilly-sur-Seine	FR	NR			1



Command	City	Country	Class.	Decoders	Concentrators	Hybrids
	(Paris)					

A.5 NIPS-1 Specification

Description
Cisco FirePower2130 Appliance
Cisco Threat Defense Threat Protection Subscription

A.6 NIPS-2 Specification

Description
Cisco FirePower4115 Appliance
Cisco Threat Defense Threat Protection Subscription

A.7 NIPS-2 Optional Network Modules (NetMods)

Description
Cisco FirePower4K - 6 port 10G SR FTW Network Module

A.8 NIPS-3 Specification

Description
Cisco FirePower9300 Appliance with Security Module SM-56
Cisco Threat Defense Threat Protection Subscription

A.9 NIPS-3 Optional Network Modules (NetMods)

Description
FirePower9000 Series - 8 port SFP+ Network Module

A.10 Data Center Switches

Description	Quantity
Catalyst Switch 9300 48-port data only , Network Advantage	4

A.11 Packet Broker

Description	Quantity
Ixia E10S Packet Broker (dual power Supplies)	1

A.12 VPN/Firewall

Description	Quantity
Juniper SRX-380 VPN Service Gateway	1

A.13 FPC Tier 3 Broker Sites

Command	City	Country	Class	FPC MGMT Type	Qty
SHAPE T3	Casteau (Mons)	BE	NR	vBroker (SW license is PFE)	1
SHAPE T3	Casteau (Mons)	BE	NS	vBroker (SW license is PFE)	1
SHAPE PIA	Casteau (Mons)	BE	NR	vBroker (SW license is PFE)	1
JFC Naples T3	Lago Patria	IT	NR	vBroker (SW license is PFE)	1
JFC Naples T3	Lago Patria	IT	NS	vBroker (SW license is PFE)	1
NAPLES PIA	Lago Patria	IT	NR	vBroker (SW license is PFE)	1
NATO HQ	Evere (Brussels)	BE	NR	vBroker (SW license is PFE)	1

Annex B – Maintenance/Support definitions

B.1. Scope

- B.1.1. This Annex specifies the Maintenance Levels, the Support levels and the relevant activities to be carried on by the involved actors.
- B.1.2. The SOW specifies who is responsible for what, at the various Maintenance/Support levels from PSA to the End of Warranty.
- B.1.3. Before PSA the responsibility of any maintenance/support activity is and remains with the Contractor.

B.2. Maintenance Concept

- B.2.1. A Maintenance Concept is a definition of the maintenance objectives, line of maintenance, indenture levels, maintenance levels, maintenance support and their interrelationships.
- B.2.2. A Maintenance Concept is applied both for hardware and software and produces maintenance tasks that will be performed on site, at civil or military maintenance facilities, at industry (OEM, Contractor) maintenance facilities. The Maintenance concept identifies who-does-what-at-what-level in accordance with the Maintenance levels and definitions defined below. The main SOW identifies clearly what is the Maintenance concept for the project(s).

B.3. Maintenance Levels (line of maintenance)

- B.3.1. A Maintenance level is the position in an organization where specified levels of maintenance are to be carried out. The line of maintenance is characterized by the skill level of the personnel, the facilities and tools provided, the location, etc.
- B.3.2. There are four (4) Maintenance Levels to ensure the highest possible availability of the Product.
 - B.3.2.1. Level 1: implies a fast and easy exchange of Maintenance Relevant/Significant Items (MRIs/MSIs, see B.4.2) performed on the Product by organizational personnel when a malfunction occurs;
 - B.3.2.2. Level 2: implies exchange of MRIs/MSIs and/or the replacement of modules, performed on the Product by organizational personnel when a malfunction occurs;
 - B.3.2.3. Level 3: implies the repair of subassemblies, modules and MRIs/MSIs after their replacement at maintenance Level 1 and Level 2. Testing on test-benches or integration

tests can be included. This maintenance level can be performed either on product (e.g. on-site) or at specific repair shops/facilities;

B.3.2.4. Level 4: all repairs and overhaul activities beyond Level 1 to Level 3 capabilities must be ensured (e.g.: repair of subassemblies, modules and LRUs after their replacement at maintenance Level 1 to Level 3; major modifications to improve the design and/or operational activities will be prepared and, if necessary, embodied at this level).

B.4. Hardware Maintenance and Hardware Change

B.4.1. The hardware maintenance is:

B.4.1.1. Corrective:

B.4.1.1.1 Deferred: maintenance carried out to perform a Remove & Replace action of a faulty item not affecting system operation. It is done in a time slot that does not further impact the Operational Availability (e.g. during a scheduled maintenance downtime period) or on "live" equipment if this is possible (e.g. when active redundancy or hot stand-by are implemented).

B.4.1.1.2 Run-to-failure: maintenance carried out to perform a Remove & Replace action of a faulty item affecting system operation (critical failure). The action is done as soon as all the resources (skills, tools and spares) are available to minimise the System downtime.

B.4.1.2. Preventative:

B.4.1.2.1 On-condition: maintenance carried out to mitigate degradation and reduce the probability of failure after analysis of system conditions through defined indicators assessed on a periodic basis.

B.4.1.2.2 Scheduled (planned): maintenance carried out on a periodic basis (time-related or number-of-occurrences-related).

B.4.2. The hardware maintenance concept shall be based on the modularity of the equipment. The items to be removed from the system/equipment for replacement, to be repaired or to be replaced/refilled for preventative maintenance shall be defined MRIs/MSIs (Maintenance Relevant/Significant Items), with the following characteristics:

B.4.2.1. Include those items in the Logistic Support Analysis (LSA) Breakdown Structure (LBS)/Product Breakdown Structure (PBS) which are significant for maintenance at the Organisational Level.

B.4.2.2. Include all the candidate items of the spare parts and consumables lists.

B.4.2.3. Are subdivided into the following categories:

B.4.2.3.1 LRU (Line Replaceable Unit)

B.4.2.3.1.1 Its failure can be detected and indicated by a BIT (Built In Test System) system or by abnormal condition/failure display/alarm, in conjunction with Technical Manuals (TMs) and general-purpose test equipment and troubleshooting procedures;

B.4.2.3.1.2 It is easily accessed for replacement purposes;

B.4.2.3.1.3 It is easy to replace, through the use of a plug-in connector, screwed terminal, nut/bolt fixing or similar connector;

B.4.2.3.1.4 It has minimal adjustment/alignment requirements, such as voltage level settings, SW/FW installations/adaptations etc.;

B.4.2.3.1.5 Adjustments may be carried out with the Built-In test (BIT) or with general-purpose HW/SW tools and test equipment;

B.4.2.3.1.6 When only one LRU has failed, its replacement returns the system/equipment to full operational status.

B.4.2.3.1.7 LRUs are subdivided into the following two categories:

B.4.2.3.1.7.1 Statistical (LS): This category includes (but it's not limited to) the items subject to faults that occur with a statistical probability (most of them are electronic items) e.g. IF/RF strips/boards, SBCs, PPCs, Computers/Servers/Workstations and their components/peripherals, Networking equipment (Routers, switches), Power Supplies, electric/electronic components in general etc.

B.4.2.3.1.7.2 Limited Life (LL): This category includes (but it's not limited to) the items whose faults are due to ageing (most of them are electromechanical items) e.g. TWTs, Rotary Joints, Slip Rings, Engines, T/R switches, Fans and Fan Assemblies, etc.

B.4.2.3.2 Insurance Item (II): This category includes (but it's not limited to) those items that have a very low failure rate and whose replacement may be necessary as a consequence of deterioration or fault by accident e.g. passive elements (attenuators, couplers, circulators, terminations), circuit breakers, patch panels, cables, metallic frames/cabinets/chassis etc.

B.4.2.3.3 Consumable Items:

B.4.2.3.3.1 Consumables are subdivided into the following three categories:

B.4.2.3.3.1.1 Technical Consumables (C[T]): This category of consumables includes (but it's not limited to) Fuses, Bulbs, Lamps, Gaskets, O-rings, EMI/Tempest seals, Surge Protectors, gas dischargers, Batteries and, in general, any other item replaced in case of preventive or corrective maintenance on the System etc.

B.4.2.3.3.1.2 Not-Technical Consumables (C[NT]): This category of consumables includes (but it's not limited to) all POLs (Petrol, Oils, Lubricants), adhesive, sealing paste, gas and, in general, any other item replaced in case of preventative or corrective maintenance on the System etc.

B.4.2.3.3.1.3 Generic Consumables (C[G]): This category of consumables includes (but it's not limited to) ink cartridges, toners, printing paper, print ribbons, generic cleaning material and in general all the materials whose consumption cannot be predicted (e.g. is not associated to any preventative or corrective maintenance on the System) etc.

B.4.2.3.4 Attaching Parts (AP)

B.4.2.3.4.1 The Attaching Parts are the items reported in the Corrective and Preventative Maintenance Procedures and in the Illustrated Parts Breakdown such as screws, gaskets, nuts, bolts, washers etc.

B.4.3. Hardware Maintenance Levels

B.4.3.1. The hardware maintenance levels used are generally known as HL1, HL2 HL3 and HL4.

B.4.3.1.1 Organizational Maintenance (HL1) is Hardware maintenance capable of being carried out:

B.4.3.1.1.1 on-site;

B.4.3.1.1.2 by relatively low technical skill level personnel performing preventive maintenance and changing Line Replaceable Units (LRU) and Insurance Items (IIs) on the basis of diagnostic outputs;

B.4.3.1.1.3 using Built-In-Test (BIT) facilities for start-up and on-line diagnostics, by referring to main equipment Technical Manuals (TM);

- B.4.3.1.1.4 no Special Tools and Test Equipment (TTE) are envisioned to be used;
 - B.4.3.1.1.5 typical tasks will include visual inspection, preventative maintenance tasks, manual reconfiguration if necessary, external adjustments, removal and replacement of LRUs/IIs;
 - B.4.3.1.1.6 includes system failure recovery by the application of simple on-line diagnostics or technician initiated restart of the system and the use of off-line diagnostics which do not require external test module support;
 - B.4.3.1.1.7 generation of equipment failure reports, supply requisitions and other pertinent maintenance and supply records.
- B.4.3.1.2 Organizational Maintenance (HL2) is Hardware maintenance capable of being carried out:
- B.4.3.1.2.1 on-site;
 - B.4.3.1.2.2 by higher technical skill level personnel performing preventive maintenance and changing Line Replaceable Units (LRU) and Insurance Items (IIs) on the basis of diagnostic outputs;
 - B.4.3.1.2.3 using Built-In-Test (BIT) facilities for start-up and on-line diagnostics, simple Tools and Test Equipment (TTE) (standard and special-to-type) in addition to BIT as a means for on-line and off-line diagnostics, and by referring to main equipment Technical Manuals (TM) to perform exhaustive fault isolation;
 - B.4.3.1.2.4 simple either commercial or special-to-type TTE are envisioned to be used (e.g.: screwdrivers, multimeters, oscilloscope, adapters, peculiar support equipment);
 - B.4.3.1.2.5 where the fault is beyond the capabilities of HL1 technical support, HL2 activities will be performed by Support Site personnel (through on-site intervention);
 - B.4.3.1.2.6 where remote fault management is not feasible, technicians from the host site will travel to the remote site hand carrying relevant spares to perform maintenance tasks;
 - B.4.3.1.2.7 generation of equipment failure reports, supply requisitions and other pertinent maintenance and supply records.
- B.4.3.1.3 Intermediate Maintenance (HL3) is Hardware maintenance capable of being carried out:
- B.4.3.1.3.1 at maintenance facilities and through technical support and assistance or on-site

- intervention/work by maintenance personnel with skills enabling tasks to be accomplished within the relevant technologies;
- B.4.3.1.3.2 by higher technical skill level personnel performing:
 - B.4.3.1.3.3 repairing, testing and calibrating Line Replaceable Units (LRU), Shop Replaceable Units (SRU) and secondary spare parts (SSPs);
 - B.4.3.1.3.4 on-site investigations and major scheduled servicing/overhaul, detailed inspection, major equipment repair, major equipment modification, complicated adjustments, system/equipment testing;
 - B.4.3.1.3.5 failure trend analysis including reporting to relevant Purchaser authorities and Post Design Services (PDS);
 - B.4.3.1.3.6 repair tasks will be performed using Automatic Test Equipment (ATE), general purpose and special-to-type TTE, calibration equipment, any applicable support software, and the necessary equipment TMs and a Technical Data Package (TDP);
 - B.4.3.1.3.6.1 where the fault is beyond the capabilities of HL1/2 technical support, HL3 activities will be performed by Support Site personnel (through on-site intervention) or by the Contractor, depending on the Maintenance Concept;
 - B.4.3.1.3.6.2 It includes generation of equipment failure reports, supply requisitions and other pertinent maintenance and supply records.
 - B.4.3.1.4 Depot Maintenance (HL4) is Hardware maintenance capable of being carried out:
 - B.4.3.1.4.1 at maintenance facilities (industry or military, OEMs) and through technical support and assistance or on-site intervention/work by maintenance personnel with skills enabling tasks to be accomplished within the relevant technologies;
 - B.4.3.1.4.2 where the fault is beyond the capabilities of HL1-3 technical support, HL4 activities will be performed by the Contractor;
 - B.4.3.1.4.3 It includes generation of equipment failure reports, supply requisitions and other pertinent maintenance and supply records.

B.5. Software Maintenance and Software Change

- B.5.1. The software maintenance is a modification for the purposes of software fault removal,

adaptation to a new environment, or improvement of performance.

B.5.2. The software maintenance for the purposes of software faults avoidance, identification and/or removal can be:

B.5.2.1. Corrective/Unscheduled - it refers to tasks necessitated by actual errors in a software product. If the software product does not meet its requirements, corrective maintenance is performed. It is a Reactive modification of a software product performed after a new version is made available (patch/update) to correct the discovered problem(s). This activity is linked to Configuration Management, change management (contractor initiated ECP), new SW release(s) and Product baseline (PBL) change.

B.5.2.2. Preventative/Scheduled – it refers to tasks necessitated for detecting potential errors in a software product or anticipate and avoid potential failures (daily checks, DBs clean up/integrity checks, cache cleaning, rebooting/restarting etc.). The task can lead, if latent failures are discovered, to a modification of a software product after delivery to detect and correct latent faults in the software product before they become effective faults (leading to a deferred corrective action).

B.5.3. The software maintenance for the purposes of adaptation to a new environment, or improvement of performance is a software change that enhances the software product. These changes are those that were not in the original design specifications or in the originally released software and are subject to purchaser initiated ECPs:

B.5.3.1. Adaptive maintenance: software maintenance for the purposes of adaptation to a new environment (e.g.: a new environment could be a new type of hardware or a new operating system on which the software is to be run). Adaptive refers to a change necessary to accommodate a changing environment. Adaptive changes include changes to implement new system interface requirements, new system requirements, or new hardware requirements. This is a modification of a software product performed after delivery to keep a software product usable in a changed or changing environment.

B.5.3.2. Perfective maintenance: software maintenance performed to improve the performance, maintainability, or other attributes of a computer program (e.g.: maintenance that adds new required functions is often referred to as enhancement). Perfective refers to a change that improves the software product's performance. A perfective change might entail providing new functionality improvements for users or reverse engineering to create maintenance documentation that did not exist previously or to change existing documentation. This is a modification of a software product after delivery to improve performance or maintainability.

B.5.4. Software Maintenance Levels

B.5.4.1. The software maintenance levels used are generally known as SL1, SL2 SL3 and SL4.

B.5.4.1.1 Organizational Maintenance (SL1) is Software maintenance capable of being carried out with the same characteristics highlighted for HL1. SL1 are those functions/tasks in support of the on-site software that are within the capabilities of site maintenance personnel. This includes software failure recovery by the application of simple diagnostics, or site maintenance personnel initiated restart.

B.5.4.1.2 Organizational Maintenance (SL2) is Software maintenance capable of being carried out with the same characteristics highlighted for HL2 e.g. SW settings, simple SW customizations (per site/instance), SW reloading/installation with automated or detailed procedures reported in the TMs, execution of scripts, management of users/profiles. SL2 are those functions/tasks in support of the on-site software that are within the capabilities of a System Administrator.

B.5.4.1.3 Intermediate Maintenance (SL3) is Software maintenance capable of being carried out with the same characteristics highlighted for HL3 e.g. SW/FW fine tuning (per site/instance), SW/FW bugs recording and reporting, SW/FW troubleshooting including Operating Systems. SL3 (on-site intervention) comprises those functions/tasks in support of the on-site software that require specialist intervention (SW System architects, SW programmers, experienced Systems' Administrators, Network specialists). The tasks can be performed either by software personnel visiting the site or by remote diagnostics if enabled by the System and allowed by NCIRC.

B.5.4.1.4 Depot Maintenance (SL4) is Software maintenance capable of being carried out with the same characteristics highlighted for HL4 e.g. SW/FW debugging, re-coding and testing (both in simulated and emulated environments), SW/FW patches creation and deployment. The tasks can be performed by software engineers in properly configured environments (SW development and testing facilities) under strict Configuration Control.

B.6. Support Concept

B.6.1. A Support Concept is a definition of the support objectives (scenarios) in relation with maintenance levels, maintenance support and their interrelationships.

B.6.2. This is peculiar for IT/SW-intensive and IT/SW-driven systems and shall be implemented in conjunction and coordination with the Maintenance Concept.

B.6.3. Support levels

B.6.3.1. There are (4) support levels

B.6.3.1.1 First level support (on-site, non-specialised)

B.6.3.1.1.1 It consists of simple routine administration and activities. This level is user facing and is the first line of technical support. A single point of contact inside the NCI Agency central Service Desk is provided to customers for the implemented services. The Service Desk will log, categorise, prioritise, diagnose and resolve incidents within the boundaries of their training and permissions. The pertinent NCI Agency CIS Support Units (CSUs) carry out this level of support, in coordination with the NCI Agency Centralised Service Desk.

B.6.3.1.1.2 The 1st Level Support Process implements the Incident Management process in accordance with the ISO/IEC 20000 and ITIL framework or equivalent;

B.6.3.1.1.3 As part of the Incident Management, the Service Desk receives the issue from the user, puts it into a standard format (Trouble Ticket, TT), performs an initial assessment and distributes it to the predefined actors to solve it.

B.6.3.1.2 Second level support (centralized)

B.6.3.1.2.1 It provides escalated technical support to incident investigation and diagnosis. This level delivers advanced expertise to process services related to centralized system operations, fault isolation, system administration, management of maintenance services, system configuration, including reconfiguration of data sources and data connectivity to restore operations, assistance to first level and on-site support. This level performs end-to-end service monitoring and takes actions to resolve the incident and recover the services impacted.

B.6.3.1.2.2 The 2nd Level Support Process implements the Problem Management process in accordance with the ISO/IEC 20000 and ITIL framework or equivalent;

B.6.3.1.2.3 The Problem Management process receives the TT from the Service Desk and performs the following tasks:

B.6.3.1.2.3.1 (Re-)evaluation of TT category, criticality and priority,

B.6.3.1.2.3.2 Identification of the root cause of the issue (e.g. by issue replication testing),

B.6.3.1.2.3.3 Identification of workarounds,

B.6.3.1.2.3.4 Identification and initial planning of possible short, medium and long-term solutions (e.g. Workarounds, Patches, or new Baseline or CI Releases),

B.6.3.1.2.3.5 Create Problem Analysis Report and Change Request (CR) incl. schedule of

implementation, and synchronisation with the Baseline Maintenance process;

B.6.3.1.2.3.6 Presentation of the Problem Analysis Report and CR to the Change Control Board (CCB) for approval,

B.6.3.1.2.3.7 Monitor and Control the approved CR during implementation,

B.6.3.1.2.3.8 Trigger 3rd Level Support and/or 3rd Level Maintenance process to implement the CR;

B.6.3.1.2.3.9 Perform the post- CR implementation review.

B.6.3.1.3 Third level support (centralized)

B.6.3.1.3.1 It consists of central service management, central problem isolation and resolution, system-level maintenance, local repairs or spares provision, and management of deficiencies and warranty cases, beyond the capability of the second level support.

B.6.3.1.3.2 The 3rd Level Support Process implements the Deployment and Release Management process in accordance with the ISO/IEC 20000 and ITIL framework or equivalent.

B.6.3.1.3.3 The Deployment and Release Management process receives the approved Change Request from the 2nd Level Support and performs the following tasks:

B.6.3.1.3.3.1 Release of the solution (release unit/record)

B.6.3.1.3.3.2 Development of the solution (e.g. new CI Fix, Repair, Replacement, Patch, or Release),

B.6.3.1.3.3.3 Testing of the solution (e.g. Regression testing, issue/deficiency replication testing),

B.6.3.1.3.3.4 Update of Baseline content and status,

B.6.3.1.3.3.5 Delivery and deployment of the solution.

B.6.3.1.4 Fourth level support (OEM/vendor)

B.6.3.1.4.1 It consists of off-site factory/vendor problem resolution and maintenance, beyond the capability of third level support.

B.7. Support scenarios

B.7.1. The support concept is the apportionment of maintenance activities:

B.7.1.1. NATO Maintenance Task (NMT) will be performed by NATO personnel (military or civilian),

B.7.1.2. Industry Maintenance Task (IMT) will be performed by industry personnel under Warranty or Post Warranty Arrangement.

B.7.2. Theoretically there are four possible scenarios:

B.7.2.1. NONO – NATO Owned / NATO Operated. If this approach is chosen the solution would be procured as a system and would be operated and maintained by NATO. The responsibilities for NATO maintenance levels are defined in the Maintenance Concept.

B.7.2.2. COCO – Contractor Owned / Contractor Operated. If this approach is chosen NATO would have the solution delivered by a contractor as a Service.

B.7.2.3. NOCO – NATO Owned / Contractor Operated. With this approach NATO would procure a system, but would “outsource” the Operation and Maintenance of it.

B.7.2.4. CONO – Contractor Owned / NATO Operated. This approach exists and is usually called “Financial leasing”.

B.7.3. For NONO and CONO scenario the Contractor shall agree with the Purchaser on maintenance levels commitments and develop a tailored logistic support concept based on a blended sharing of maintenance levels (this means that the Contractor shall apply the Maintenance Concept defined in the SOW):

B.7.4. For NOCO and COCO scenario the Contractor is responsible for all the Maintenance Levels (HL 1/2/3/4 and SL 1/2/3/4)

B.8. Maintenance and Support allocation

