Acquisition Directorate

Boulevard Léopold III
B-1110 Brussels

NCIA/ACQ/2020/6757
05 June 2020

To	:	All Prospective Bidders
Subject	:	**IFB-CO-15049-BITI: INVITATION FOR BID** **Technical Refresh of Balkans IT Infrastructure**
Reference(s)	:	A. AC/4-D(2011)0009-FINAL, Alliance Operations and Missions NSIP Procurement Regulations B. AC/4-D/2261 (1996 Edition), Procedures for International Competitive Bidding C. AC/4(PP)D/27887-Add1 D. AC/4-DS(2019)0027 (INV) E. AC/4(PP)D/27806-Add1-Rev1 F. AC/4-DS(2019)0030 G. NCI Agency NOI: NCIA/ACQ/2020/6332 dated 17 February 2020

Dear Prospective Bidders,

1. Your firm is hereby invited to participate in International Competitive Bid under the Lowest Compliant Bidding (LCB) procedures set forth in Reference (Ref.) A for the provision of Technical Refresh of Balkans IT Infrastructure.

2. The aim of the project is to address the software and hardware lifecycle replacement and the consolidation of servers and network devices on MISSION SECRET, NATO SECRET and NATO UNCLASSIFIED networks within the BALKANS Joint Operation Area (JOA).

3. Contract award will be based on the proposal evaluated as the lowest priced bid in compliance with the requirements of this IFB and in accordance with the selection criteria set forth in the Bidding Instructions (Book I) and which follow the procedures for LCB as set forth in Ref. A.

4. The reference for the IFB is **IFB-CO-15049-BITI**, and all correspondence concerning this IFB shall reference this number.

5. THE **CLOSING TIME FOR SUBMISSION OF BIDS IN RESPONSE TO THIS IFB IS 12H00 / 12:00 PM (BRUSSELS TIME) ON 10 JULY 2020**.

   ➢ It is important to note that requests for extensions to the bid closing date are unlikely to be approved.

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6. The NCI Agency intends to place one contract to cover the entire scope of the project. No partial bidding will be considered.

7. This IFB consists of the following:

   ➢ Book I: Bidding Instructions, including Administrative Certificates and Bidding Sheets

   ➢ Book II: Prospective Contract:
   - Part I: The Schedule of Supplies and Services (SSS)
   - Part II: The Contract Special Provisions
   - Part III: The Contract General Provisions
   - Part IV: The Statement of Work (SOW). The SOW and Annex A set forth the detailed specifications governing the performance requirements of the Contract.

8. The overall security classification of the IFB is "NATO UNCLASSIFIED". This IFB remains the property of the NCI Agency and shall be protected in accordance with the applicable national security regulations.

9. Bidders have the right to request IFB clarifications as outlined in section 2.8 of the Bidding Instructions (Book I). All requests for clarification will be dealt with strictly in accordance with the procedures at Ref. A.

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

11. Recipients are requested to complete and return the enclosed "Acknowledgement of Receipt" at Attachment A of this letter within 7 days of the date of this letter, informing the NCI Agency of their intention to bid or not bid. Firms are not bound by their initial decision, and if a firm decides to reverse its stated intention at a later date, it is requested to advise the NCI Agency by a separate letter.

12. Bidders are advised that the NCI Agency reserves the right to cancel this IFB 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.

13. This Invitation for Bid does not constitute either a financial or contractual commitment at this stage.

14. All documents related to this IFB, including IFB amendments and clarifications, shall be exclusively communicated through: IFB-CO-15049-BITI.Communication@ncia.nato.int.

15. The NCI Agency point of contact for all information concerning this IFB is Mr. Graham Hindle, Senior Contracting Officer, who may be reached at IFB-CO-15049-BITI.Communication@ncia.nato.int.

16. Your interest and participation in the NCI Agency's acquisition projects is appreciated.

For the Director of Acquisition

Graham Hindle
Senior Contracting Officer

Attachments:
A) Acknowledgement of Receipt of **IFB-CO-15049-BITI**
B) Bidders List for **IFB-CO-15049-BITI**

NCIA/ACQ/2020/6757

Distribution List for IFB-CO-15049-BITI

All Nominated Prospective Bidders

NATO Delegations (Attn: Infrastructure Adviser)

Embassies in Brussels (Attn: Commercial Attaché)

Distribution for information:

NATO HQ

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

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

EU Staff Group at SHAPE
Att: Mr Johannes Lachner

EU OHQ OP ALTHEA (EUFOR BiH)
Att: LT COL (OF-4) IRL/IE Patrick J. Doherty

NCI Agency – ALL NATEXs

NCI Agency

ACQ Director of Acquisition – Mrs J.Upton
ACQ Deputy Director of Acquisition – Ms A. Szydelko
ACQ Contract Award Board Administrator - Ms Carolien Biesemans
ACQ Chief of Contractsa.i. - Mr Philip Chulick
ACQ Principal Contracting Officer – Mr A. Courtois
CES – SL Chief – Mr P. Pradier
CES – Project Manager – Mr M. Andrei
ILS Officer – Mr Heinz Mueller- Nordmann
COO/P3M | NSIP Account Manager, Ms Isabelle Le Pladec
Office of the Legal Advisor
Registry

NCIA/ACQ/2020/6757

ATTACHMENT A

ACKNOWLEDGEMENT OF RECEIPT OF INVITATION FOR BID

IFB-CO-15049-BITI

Please complete, sign and return by email (scanned to PDF) within 7 days
to: IFB-CO-15049-BITI.Communication@ncia.nato.int.

We hereby advise that we have received Invitation for **IFB-CO-15049-BITI** on
_____ (date), together with all enclosures listed in the Table of Contents.

PLEASE CHECK ONE:

☐   As of this date and without commitment on our part, we do intend to submit a bid.

☐   We do not intend to submit a bid.

Signature: _____

Printed Name: _____

Title: _____

Company: _____

Address: _____

                            _____

NCIA/ACQ/2020/6757

ATTACHMENT B
Final Bidders List for CO-15049-BITI

Country	COMPANY
BELGIUM	STUDIOTECH
	ATOS
	CISCO SYSTEMS BELGIUM
	KLARRIO
	BREVCO SERVICES
CANADA	ROCK Networks Inc.
CROATIA	King ICT
	SPAN d.d.
CZECH REPUBLIC	AUTOCONT a.s.
GERMANY	Airbus Defence and Space GmbH
	CGI Deutschland Ltd. & Co. KG
	Rohde & Schwarz GmbH & Co KG
	GBS Tempest GmbH
	secunet International GmbH & Co. KK
	Bechtle
HUNGARY	ATCO Frontec Európa Kft
ITALY	GENERAL DYNAMICS MISSION SYSTEMS-ITALT S.r.l.
	LEONARDO S.p.A.
	R.A.I.T. 88 S.r.l.
NETHERLANDS	UNI Business Centre B.V.
	Sapienza B.V.
NORWAY	Airbus Defence and Space AS
POLAND	ENAMOR International Sp. z o.o.
ROMANIA	Atos Convergence Creators SRL
SPAIN	EVERIS
UK	Nexor
	AUJLA BUSINESS SYSTEMS LIMITED
	GARRISON TECHNOLOGY LTD
	ITC GLOBAL SECURITY LIMITED
USA	AllCom Global Services, Inc.
	iSoft Solutions, LLC
	NetApp U.S. Public Sector, Inc.
	EMW, Inc.
	Prime Source Technologies, LLC

INVITATION FOR BID

IFB-CO-15049-BITI

Technical Refresh of Balkans IT Infrastructure

Authorisation/Serial No.:
2017/1CM03034 / 2019/1IS03035

GENERAL INDEX

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

IFB-CO-15049-BITI

Technical Refresh of Balkans IT Infrastructures

BOOK I

BIDDING INSTRUCTIONS

TABLE OF CONTENT

SECTION 1 INTRODUCTION

1.1.   Purpose

1.1.1.   The purpose of this Invitation for Bid (IFB) is to award a Contract for the procurement and implementation of IT Infrastructure Technical Refresh in the Balkans Theatres.

1.1.2.   The aim of the project is to address the software and hardware lifecycle replacement and the consolidation of servers and network devices on MISSION SECRET, NATO SECRET and NATO UNCLASSIFIED networks within the BALKANS Joint Operation Area (JOA).

1.1.3.   In addition, this project replaces the obsolete PABX infrastructure in NHQ Sarajevo with up to date VoIP solution already implemented across other NATO HQs.

1.1.4.   Crisis Response Operations Urgent Requirements (CUR) 1896-2017 will perform the technical refresh of the Balkans Information Technology (IT) Infrastructure replacing obsolete hardware and unsupported software supporting Communications and Information Systems (CIS). The CIS supports the NATO and EUFOR missions in the BALKANS Joint Operations Area (JOA) and at the supporting headquarters at SHAPE (EUSG) and NAPLES (EUCE).

1.1.5.   Completion of this project shall ensure that NHQ Sarajevo and KFOR can provide and maintain a reliable, fault tolerant, secure, efficient and responsible IT infrastructure in support of their mission C2 processes.

1.1.6.   The Bidder shall provide and implement the performance requirements as set forth in the relevant Statement of Work (Book II Part IV) and in the Schedule of Supplies and Services (Book II Part I) in the manner, and at times and the place, stated in the prospective Contract.

1.1.7.   The Bidder shall refer to the Purchaser all queries for a resolution of conflicts found in information contained in this document in accordance with the procedures set forth in §2.8 of the Bidding Instructions entitled "Requests for RFQ Clarifications".

1.1.8.   The target date for Contract Award is November 2020.

1.2. Overview of the Prospective Contract

1.2.1. The Prospective Contract (Book II) requires the selected Contractor to deliver the full scope as described in this IFB. The Contractor shall perform all activities required per Book II Part IV (Statement of Work (SOW)) and its Annexes and shall deliver the associated deliverables per Book II Part I (Schedule of Supplies and Services (SSS)).

1.2.2. The Contract resulting from this IFB shall be awarded on a Firm-Fixed-Price basis.

1.2.3. The Contract will be governed by Book II, Part II (Contract Special Provisions), and Part III (Contract General Provisions).

1.3. Governing Rules and Eligibility

1.3.1. This solicitation is issued in accordance with the Alliance Operations and Missions NSIP Procurement Regulations set forth in the NATO document AC/4-D(2011)0009-Final.

1.3.2. Pursuant to these procedures, bidding is restricted to companies from participating NATO member nations (see paragraph 2.1.1.8) for which either a Declaration of Eligibility has been issued by their respective government authorities or is an active holder of an NCI Agency Basic Ordering Agreement (BOA).

1.4. Lowest Compliant Bidding (LCB) Evaluation Method

1.4.1. The evaluation method to be used in the selection of the successful Bidder under this solicitation is the Lowest Compliant Bidding Procedures set forth in AC/4-D(2011)0009-Final.

1.4.2. The bid evaluation criteria and the detailed evaluation procedures are described in SECTION 4.

1.4.3. This IFB will not be subject to a public bid opening.

1.5. Security

1.5.1. The security classification of this IFB is "NATO UNCLASSIFIED".

1.5.2. The selected Contractor will be required to handle and store classified material to the level of "NATO SECRET" and the Contractor shall have the appropriate facility and personnel clearances at the date of Contract Signature.

1.5.3. Should the Contractor be unable to perform the Contract due to a lack of the proper facility/security clearances, this shall neither form the basis for a claim of adjustment or an extension of schedule nor can it be considered a mitigating circumstance in the case of an assessment of Liquidated Damages or a determination of Termination For Default by the Purchaser.

1.5.4. The selected Contractor's personnel working at NATO sites as well as the Contractor's personnel at the Contractor's facility directly working on this project, shall possess a security clearance of "NATO SECRET".

1.5.5. The Contractor personnel without such a clearance, confirmed by the appropriate national security authority and transmitted to the cognisant NATO security officer at least fourteen (14) days prior to the site visit, will be denied access to NATO site(s). Denial of such access by the Purchaser may not be used by the Contractor as the basis for a claim of adjustment or an extension of schedule nor can the denial of access be considered a mitigating circumstance in the case of an assessment of Liquidated Damages or a determination of Termination for Default by the Purchaser.

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

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

1.6. Bidders Conference

1.6.1. A Bidders Conference will not be held for this project.

1.7.   Statement of Work Applicable Documents

1.7.1.   Section 2 of the SOW lists all applicable documents bidders should be aware of and their contents and comply where applicable.

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END OF SECTION 1

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SECTION 2 GENERAL BIDDING INFORMATION

2.1. Definitions

2.1.1. In addition to the definitions and acronyms set in Clause 1 of Part II of the Prospective Contract and the definitions and acronyms set in the Clause 2 of the NCI Agency Contract General Provisions (Part III), the following terms and acronyms, as used in this IFB shall have the meanings specified below:

2.1.1.1. The term **"Assembly"** as used herein means an item forming a portion of equipment that can be provisioned and replaced as an entity and which normally incorporates replaceable parts or groups of parts.

2.1.1.2. **"Bid"** or **"Quotation"**: a binding offer to perform the work specified in the Prospective Contract (Book II).

2.1.1.3. **"Bidder"**: a firm, consortium, or joint venture which submits an offer in response to this solicitation. Bidders are at liberty to constitute themselves into any form of Contractual arrangements or legal entity they desire, bearing in mind that in consortium-type arrangements, a single judicial personality shall be established to represent that legal entity. A legal entity, such as an individual, Partnership or Corporation, herein referred to as the "Principal Contractor", shall represent all members of the consortium with the NCI Agency and/or NATO. The "Principal Contractor" shall be vested with full power and authority to act on behalf of all members of the consortium within the prescribed powers stated in an irrevocable Power of Attorney issued to the "Principal Contractor" by all members associated with the consortium. Evidence of authority to act on behalf of the consortium by the "Principal Contractor" shall be enclosed and sent with the Bid. Failure to furnish proof of authority may be a reason for the Bid being declared non-compliant.

2.1.1.4. **"Compliance"**: strict conformity to the requirements and standards specified in this IFB.

2.1.1.5. **"Contractor"**: the awardee of this IFB, which shall be responsible for the fulfilment of the requirements established in the Contract.

2.1.1.6. **"Firm of a Participating Country"**: a firm legally constituted or chartered under the laws of, and geographically located in, or falling under the jurisdiction of a Participating Country.

2.1.1.7. **"IFB"**: Invitation for Bid

2.1.1.8. **"Participating Country"**: any of the NATO nations contributing to the project, namely, (in alphabetical order): ALBANIA, BELGIUM, BULGARIA, CANADA, CROATIA, CZECH REPUBLIC, DENMARK, ESTONIA, FRANCE, GERMANY, GREECE, HUNGARY, ICELAND, ITALY, LATVIA, LITHUANIA, LUXEMBOURG, MONTENEGRO, THE NETHERLANDS, NORWAY, POLAND, PORTUGAL, ROMANIA, SLOVAKIA, SLOVENIA, SPAIN, TURKEY, THE UNITED KINGDOM, and THE UNITED STATES.

2.1.1.9. **"Purchaser"**: The Purchaser is defined as the NCI Agency or its legal successor.

2.2. Eligibility and Origin of Equipment and Services

2.2.1. As stated in paragraph 1.3.2, only firms from a Participating Country are eligible to engage in this competitive bidding process.

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

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

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

2.2.5. Unless otherwise authorised by the terms of the Prospective Contract, the Intellectual Property Rights to all design documentation and related system operating software shall reside in NATO member countries, and no license fees or royalty charges shall be paid by the Contractor to firms, individuals or governments other than within the NATO member community.

2.2.6. Bidders are at liberty to constitute themselves into any form of contractual arrangements or legal entity they desire, bearing in mind that in consortium- type arrangements a single judicial personality shall be established to represent that legal entity. A legal entity, such as an individual, Partnership or Corporation, herein referred to as the "Prime

Contractor", shall represent all members of the consortium with the NCI Agency and/or NATO. The "Prime Contractor" shall be vested with full power and authority to act on behalf of all members of the consortium, within the prescribed powers stated in an irrevocable Power of Attorney issued to the "Prime Contractor" by all members associated with the consortium. Evidence of authority to act on behalf of the consortium by the "Prime Contractor" shall be enclosed and sent with the Bid. Failure to furnish proof of authority shall be a reason for the Bid being declared non-compliant.

2.3. Bid Delivery and Bid Closing Date

2.3.1. All Bids shall be in the possession of the Purchaser at the email address given below in Paragraph 2.3.2 below before 12:00 hours (CENTRAL EUROPEAN TIME) on 10 July **2020** at which time and date submissions shall be closed.

2.3.2. Due to the COVID-19 restrictions imposed by some governments and organisations within the NATO alliance, Bidders are requested to submit their bid electronically to the following email address, which will generate an automatic confirmation of receipt.

IFB-CO-15049-BITI.Bids@ncia.nato.int

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

2.3.3.1. For the first e-mail the subject line shall read: "IFB-CO-15049-BITI – Official Bid for [company name] – Part 1 - Administrative Envelope". The e-mail content shall be as described in Paragraph 3.4 below.

2.3.3.2. For the second e-mail the subject line shall read: "IFB-CO-15049-BITI – Official Bid for [company name] – Part 2 - Price Proposal". The e-mail content shall be as described in Paragraph 3.5 below.

2.3.3.3. For the third e-mail the subject line shall read: "IFB-CO-15049-BITI – Official Bid for [company name] – Part 3 – Technical Proposal". The e-mail content shall be as described in Paragraph 3.6 below. For large Technical Proposals, multiple e-mails may be required to submit the entire package. In such case, Bidders shall clearly indicate the correct order in the e-mail subject line.

2.3.4. Bids which are delivered to the Purchaser after the specified time and date set forth above for Bid Closing are "Late Bids" and shall not be considered for award.

2.3.5. It is the responsibility of the Bidder to ensure that the Bid submission is duly completed by the specified Bid Closing time and date. If a Bid received at the NCI Agency's facility by electronic data interchange is unreadable to the degree that conformance to the essential requirements of the solicitation cannot be ascertained, the Purchaser will immediately notify the Bidder that the Bid will be rejected unless the Bidder provides clear and convincing evidence:

2.3.5.1. Of the content of the Bid as originally submitted; and,

2.3.5.2. That the unreadable condition of the Bid was caused by Purchaser software or hardware error, malfunction, or other Purchaser mishandling.

2.4. Late Bids

2.4.1. Bids which are submitted to the Purchaser after the specified time and date set forth in paragraph 2.3.1 are "Late Bids" and shall not be considered for award. Such bids will be unopened unless the Purchaser can determine that the bid in question meets the criteria for consideration as specified below.

2.5. Consideration of Late Bid

2.5.1. Bids which are delivered to the Purchaser after the specified time and date set forth above for Bid Closing are "Late Bids" and shall not be considered for award. Such Bids will remain unopened unless the Purchaser can determine that the Bid in question meets the criteria for consideration as specified below.

2.5.2. *Consideration of Late Bid* – The Purchaser considers that it is the responsibility of the Bidder to ensure that the Bid submission arrives by the specified Bid Closing time. A late Bid shall only be considered for award under the following circumstances:

2.5.2.1. A Contract has not already been awarded pursuant to the Invitation for Bid, and;

2.5.2.2. The Bid was sent to the email address specified in the IFB and the delay was solely the fault of the Purchaser.

2.6. Requests for Extension of Bid Closing Date

2.6.1. The Purchaser does not accept, except in exceptional cases, Bidder requests to extend the Bid Closing Date. In any event, all questions and requests for extension of bid closing date must be submitted in writing to the Point of Contact indicated in paragraph 2.7.1 below **only** through the delegation of the country of origin of the firm which has been invited to bid or by that country's Embassy **no later than fourteen (14) calendar days** prior to the established bid closing date. Bidders are advised to submit their request in sufficient time as to allow their respective NATO Delegation or Embassy to deliver the formal request to the Purchaser within this time limit.

2.6.2. Bidders should note that per paragraph 9.2 of the Alliance Operations and Missions NSIP Procurement Regulations, only in exceptional cases may the Purchaser consider a request for an extension of the Bid Closing Date. Extensions to the Bid Closing Date are at the sole discretion of the Purchaser

2.7. Purchaser's Point of Contact

2.7.1. The Purchaser point of contact for all information concerning this IFB is:

NATO Communications and Information Agency
Acquisition Directorate
Boulevard Léopold III
1110 Brussels, Belgium

Mr. Graham Hindle, Senior Contracting Officer

Bid Delivery:
IFB-CO-15049-BITI.Bids@ncia.nato.int

Questions/Clarifications:
IFB-CO-15049-BITI.Communication@ncia.nato.int

Bid Guarantee:
TreasuryVendorBank.Finance@ncia.nato.int

2.7.2. All correspondence related to the IFB shall be sent to the contact details in paragraph 2.7.1 above.

2.8. Request for IFB Clarifications

2.8.1.   Bidders, at the earliest stage possible during the the solicitation period, are encouraged to seek clarification of any matters of an administrative or contractual, price, or technical in nature pertaining to this IFB.

2.8.2.   All questions and requests for clarification shall be submitted via email (no phone calls) to the point of contact identified in paragraph 2.7.1 using the Clarification Request Form provided at ANNEX C of this Book 1.

2.8.3.   Such questions and requests for clarification shall be submitted not later than seventeen (17) calendar days prior to the stated "Bid Closing Date". The Purchaser is under no obligation to answer questions submitted after this time.   Requests for clarification must address the totality of the concerns of the Bidder, as the Bidder will not be permitted to revisit areas of the IFB for additional clarification except as noted in paragraph 2.8.4 below.

2.8.4.   Additional requests for clarification are limited only to the information provided as answers by the Purchaser to Bidder's requests for clarification. Such additional requests shall arrive not later than seventeen (17) calendar days before the established bid closing date.

2.8.5.   Bidders are advised that additional request for clarifications shall be answered on a discretionary basis.

2.8.6.   It is the responsibility of the Bidders to ensure that all Clarification Requests submitted bear no mark, logo or any other form or sign that may lead to reveal the Bidders' identity in the language constituting the clarification itself. This prescription is not applicable to the mode used for the transmission of the clarification.

2.8.7.   The Purchaser declines all responsibilities associated to any and all circumstances regardless of the nature or subject matter arising from the Bidders' failure or inability to abide to the prescription in paragraph 2.8.6 above.

2.8.8.   Except as provided above, all questions will be answered by the Purchaser and the questions and answers (but not the identity of the questioner) will be issued in writing (via email) to all Prospective Bidders. The Bidders shall

immediately inform the Purchaser in the event that submitted questions are not reflected in the answers published.

2.8.9.   Where the extent of the changes implied by the response to a clarification request is of such a magnitude that the Purchaser deems necessary to issue revised documentation, the Purchaser will do so by the means of the issuance of a formal IFB amendment in accordance with paragraph 2.10.

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

2.8.11.   The published responses issued by the Purchaser shall be regarded as the authoritative interpretation of the IFB. Any amendment to the language of the IFB included in the answers will be issued as an IFB Amendment and shall be incorporated by the Bidder in its offer.

2.9.   Requests for Waivers and Deviations

2.9.1.   Bidders are informed that requests for alteration to, waivers, or deviations from the terms and conditions of this IFB will not be considered after the request for clarification process. Requests for alterations to the other requirements, terms or conditions of the IFB may only be considered as part of the clarification process set forth in paragraph 2.8.

2.9.2.   Requests for alterations to the specifications, terms and conditions of the Contract which are included in a bid as submitted may be regarded by the Purchaser as a qualification or condition of the bid and may be grounds for a determination of non-compliance.

2.10.   Amendment of the Invitation for Bid

2.10.1.   The Purchaser may revise, amend or correct the terms, conditions and specifications and provisions of the IFB at any time prior to the Bid Closing Date. Any and all modifications will be transmitted to all Bidders by an official amendment designated as such and signed by the Contracting Authority. Such amendment will be accompanied by an acknowledgement of receipt which the Bidder shall complete and enclose as part of its submitted bid. This process may be part of the clarification procedures set

forth in paragraph 2.8 or may be an independent action on the part of the Purchaser.

2.10.2. All revisions or amendments issued by the Purchaser shall also be acknowledged by the Bidder in its bid by completing the "Acknowledgement of Receipt of IFB Amendments" at B.2 of this Book I. Failure to acknowledge receipt of all amendments may be grounds to determine the bid non-compliant.

2.10.3. The Purchaser will consider the potential impact of amendments on the ability of Prospective Bidders to prepare a proper bid within the allotted time. The Purchaser may extend the "Bid Closing Date" at its discretion and such extension will be set forth in the amendment document.

2.11.   Cancellation of Invitation for Bid

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

2.12.   Modification and Withdrawal of Bids

2.12.1. Bids, once submitted, may be modified by Bidders, but only to the extent that the modifications are in writing, conform to the requirements of the IFB, and are received by the Purchaser prior to the exact time and date established for bid closing. Such modifications shall be considered as an integral part of the submitted bid.

2.12.2. Modifications to bids which arrive after the bid closing date will be considered as "Late Modifications" and will be processed in accordance with the procedure set forth in paragraph 2.4 concerning "Late Bids". Except that unlike a "Late Bid", the Purchaser will retain the modification until a selection is made. A modification to a bid which is determined to be late will not be considered in the evaluation and selection process. If the Bidder submitting the modification is determined to be the successful Bidder on the basis of the unmodified bid, the modification may then be opened. If the modification makes the terms of the bid more favourable to the Purchaser, the modified bid may be used as the basis of Contract award. The Purchaser, however, reserves the right to award a Contract to

the apparent successful Bidder on the basis of the bid submitted and disregard the late modification.

2.12.3. A Bidder may withdraw its bid at any time prior to bid opening without penalty. In order to do so, an authorised agent or employee of the Bidder must provide an original statement of the firm's decision to withdraw the bid.

2.13. Bid Validity

2.13.1. Bidders shall be bound by the term of their bids for a period of twelve (12) months starting from the bid closing date specified in paragraph 2.3.1.

2.13.2. In order to comply with this requirement, the Bidder shall complete the Certificate of Bid Validity set forth in B.4. Bids offering less than this period of time, may be determined non-compliant.

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

2.13.4. Upon notification by the Purchaser of such a request for a time extension, the Bidders shall have the right to:

2.13.4.1. accept this extension of time in which case Bidders shall be bound by the terms of their offer for the extended period of time and the bid guarantee and Certificate of Bid Validity extended accordingly; or

2.13.4.2. refuse this extension of time and withdraw the bid without penalty.

2.13.5. Bidders shall not have the right to modify their bids due to a Purchaser request for extension of the bid validity unless expressly stated in such request.

2.14. Bid Guarantee

2.14.1. The Bid Guarantee shall be submitted by email to the Purchaser either directly by a banking institution or from the Bidder to the email address specified in paragraph 2.7.1. In either case, the Bidder shall provide an additional copy of the Bid Guarantee in the Bid Administration Volume.

2.14.2. An original paper copy of the Bid Guarantee shall be submitted to the Purchaser by post/courier to the following address:

NCI Agency
Financial Management Office
Treasury
NATO HQ
Boulevard Léopold III
B-1110, Brussels
Belgium

2.14.3. The Bidder shall furnish with his Bid a guarantee in an amount equal to three Hundred Thousand Euro (€300,000). The Bid Guarantee shall be substantially similar to ANNEX D as an irrevocable, unqualified and unconditional Standby Letter of Credit (SLC) issued by a Belgian banking institution fully governed by Belgian legislation or issued by a non-Belgian financial institution and confirmed by a Belgian banking institution fully governed by Belgian legislation. In the latter case signed original letters from both the issuing institution and the confirming institution must be provided. The confirming Belgian bank shall clearly state that it will guarantee the funds, the drawing against can be made by the NCI Agency at its premises in Belgium. Bid Guarantees shall be made payable to the Treasurer, NCI Agency.

2.14.4. "**Standby Letter of Credit**" or "SLC" as used herein, means a written commitment by a Belgian financial institution either on its own behalf or as a confirmation of the Standby Letter of Credit issued by a non-Belgian bank to pay all or part of a stated amount of money, until the expiration date of the letter, upon presentation by the Purchaser of a written demand therefore. Neither the financial institution nor the Contractor can revoke or condition the Standby Letter of Credit. The term "Belgian financial institution" includes non-Belgian financial institutions licensed to operate in Belgium.

2.14.5. Alternatively, a Bidder may elect to post the required Guarantee by certified cheque. If the latter method is selected, Bidders are informed that the Purchaser will cash the cheque on the Bid Closing Date or as soon as possible thereafter.

2.14.6. If the Bid Closing Date is extended after a Bidder's financial institution has issued a Bid Guarantee, it is the obligation of the Bidder to have such Bid Guarantee (and confirmation, as applicable) extended to reflect the revised Bid Validity date occasioned by such extension.

2.14.7.   Failure to furnish the required Bid Guarantee in the proper amount, and/or in the proper form and/or for the appropriate duration by the Bid Closing Date may be cause for the Bid to be determined non-compliant.

2.14.8.   The Purchaser will make withdrawals against the amount stipulated in the Bid Guarantee under the following conditions:

2.14.8.1.   The Bidder has submitted a Bid and, after Bid Closing Date (including extensions thereto) and prior to the selection of the successful bid, withdraws his Bid, or states that he does not consider his Bid valid or agree to be bound by his Bid, or

2.14.8.2.   The Bidder has submitted a successful Bid, but the Bidder declines to sign the Contract offered by the Agency, such Contract being consistent with the terms of the solicitation documents.

2.14.8.3.   The Purchaser has offered the Bidder the Contract for execution but the Bidder has been unable to demonstrate compliance with the security requirements of the Contract at the date of contract signature,

2.14.8.4.   The Purchaser has entered into the Contract with the Bidder but the Bidder has been unable or unwilling to provide the Performance Guarantee required under the terms of the Contract within the time frame required.

2.14.9.   Bid Guarantees will be returned to Bidders as follows:

2.14.9.1. To non-compliant Bidders forty-five (45) days after notification by the Purchaser of a non-compliant Bid (except where such determination is challenged by the Bidder; in which case the Bid Guarantee will be returned forty-five (45) days after a final determination of non-compliance);

2.14.9.2. To all other unsuccessful Bidders within thirty (30) days following the award of the Contract to the successful Bidder;

2.14.9.3. To the successful Bidder upon submission of the Performance Guarantee required by the Contract or, if there is no requirement for such a Performance Guarantee, upon Contract execution by both parties.

2.14.9.4. pursuant to paragraph 2.13.4.2.

2.15. Electronic Transmission of Information and Data

2.15.1. The Purchaser will endeavour to communicate answers to requests for clarification and amendments to this IFB to the Prospective Bidders as soon as practicable.

2.15.2. Bidders are cautioned that the Purchaser will rely exclusively on this email address IFB-CO-15049-BITI.Communication@ncia.nato.int to manage all correspondence related to this IFB, including IFB amendments and clarifications.

2.15.3. Bidders are cautioned that electronic transmission of documentation which contains classified information is not permissible.

2.16. Supplemental Agreements and Export Controlled Information

2.16.1. Bidders are required, in accordance with the certificate at B.7 of this Book I, to disclose any prospective Supplemental Agreements that are required by national governments to be executed by NATO/NCI Agency as a condition of Contract performance.

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

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

2.17. Notice of Limitations on Use of Intellectual Property Delivered to the Purchaser

2.17.1. Bidders are instructed to review Clause 18 of the Contract Special Provisions and Clause 30 of the Contract General Provisions. These Clauses set forth the definitions, terms and conditions regarding the rights of the Parties concerning Intellectual Property (IP) developed and/or delivered under this Contract or used as a basis of development under this Contract.

2.17.2. All Contract deliverables are governed by a distinct set of Intellectual Property Rights (IPR) and Title and Ownership provisions, detailed in Book II, Prospective Contract.

2.17.3. All Contract deliverables are governed by a distinct set of Intellectual Property Rights (IPR) and Title and Ownership provisions, detailed in Book II, Prospective Contract.

2.17.4. Bidders are required to disclose, in accordance with Annexes B.9, B.10, and B.11 of this Book I, the IP proposed to be used by the Bidder that will be delivered with either Background Intellectual Property Rights (IPR) or Third Party IPR. Bidders are required to identify such IP and the basis on which the claim of Background or Third Party IP is made.

2.17.5. The identification of Bidders' Background and/or Third Party IP shall be limited to those IPs associated with products and/or documentation which is indispensable in order to deliver, install and operate, support, maintain the system and to provide training and which are not related to products and/or documentation needed for internal processes only.

2.17.6. Bidders are further required to identify any restrictions on Purchaser use of the IP that is not in accordance with the definitions and rights set forth in the provisions of the Book II's Prospective Contract concerning use or dissemination of such IP.

2.17.7. Bidders are informed that any restriction on use or dissemination of IP conflicting with the terms and conditions of Book II or with the objectives and purposes of the Purchaser as stated in the Prospective Contract shall render the bid non-compliant.

2.18. Mandatory Quality Assurance and Quality Control Standards

2.18.1. Bidders are requested to note that, in accordance with the Certificate at Annex B.16 to this Book I – Bidding Instructions, Bidders shall provide documentary evidence that the Bidder possesses a current certification compliant with the requirements of Allied Quality Assurance Publication 2110, ISO 9001:2015 or an equivalent QA/QC regime.

2.18.2. Bidders shall further demonstrate that such regime is applied within the Bidder's internal organisation as well as extended to its relationships with sub-contractors.

2.18.3. If the Bidder is offering a QA/QC regime that is claimed to be equivalent to AQAP 2110 or ISO 9001:2015, the burden of proof of such equivalency shall be on the Bidder and such evidence of equivalency shall be submitted with the Certificate at Annex B.16 in the Bid Administration Package.

2.18.4. Failure to execute this certificate or to provide documentary evidence of compliance with this requirement may result in a determination of non-compliance of the submitted bid.

END OF SECTION 2

SECTION 3   BID PREPARATION INSTRUCTIONS

3.1.   General

3.1.1.   Bids shall be prepared and submitted in accordance with the instructions set forth herein. Failure to comply with these instructions may result in the Bid being declared non-compliant by Purchaser and eliminated from further consideration.

3.1.2.   Bidders shall prepare a complete Bid which comprehensively addresses all requirements stated herein. The Bid shall demonstrate the Bidder's understanding of the IFB and its ability to provide all the deliverables and services listed in the Schedule of Supplies and Services in a timely manner.

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

3.1.4.   Although the Purchaser may request clarification of the bid, it is not required to do so and may make its determination on the content of the bid as written. Therefore, Bidders shall assume that inconsistencies, omissions, errors, lack of detail and other qualitative deficiencies in the submitted bid will have a negative impact on the final rating.

3.1.5.   Partial bids and bids containing conditional statements will be declared non-compliant.

3.1.6.   Bidders are advised that the Purchaser reserves the right to incorporate the successful Bidder's Offer in whole or in part by reference in the resulting Contract.

3.1.7.   The specific format for each volume is stated in paragraph 3.3.

3.1.8.   All documentation submitted as part of the bid shall be classified at a level not higher than "NATO RESTRICTED".

3.2. Language Of Bid

3.2.1. All notices and communications regarding this IFB shall be written and conducted in English.

3.2.2. All bids shall be submitted in English.

3.3. Bid Package Content

3.3.1. The complete bid shall consist of three distinct and separated volumes described in the following subparagraphs. Detailed requirements for the structure and content of each of these packages are contained in these bidding instructions.

    3.3.1.1. Volume 1: Bid Administration (paragraph 3.4)
    3.3.1.2. Volume 2: Price Proposal (paragraph 3.5)
    3.3.1.3. Volume 3: Technical Proposal (paragraph 3.6)

3.3.2. The proposal shall be sent via three separate e-mails to the Bid Delivery email address specified in section 2.7. The e-mails shall have the following subject lines:

- For the first e-mail the subject line shall read: "IFB-CO-15049-BITI – Official Bid for [company name] – Volume 1 - Administrative Envelope".

- For the second e-mail the subject line shall read: "IFB-CO-15049-BITI – Official Bid for [company name] – Volume 2 - Price Proposal".

- For the third e-mail the subject line shall read: "IFB-CO-15049-BITI – Official Bid for [company name] – Volume 3 – Technical Proposal".

3.3.3. The Bid Guarantee shall be sent by email to the email address specified in section 2.7. This email should clearly reference the company name and IFB number.

3.3.4. Detailed requirements for the structure and content of each of these volumes are contained in these Bidding Instructions.

3.4.   Part 1: Bid Administration E-mail

3.4.1.   Quantity: one (1) file in pdf format containing all the documents specified in paragraph 3.4.3 and one copy of the Bid Guarantee submitted by email as mentioned in paragraph 3.4.3.17. Additionally, a copy of the Bid Guarantee shall be included in this volume.

3.4.2.   No information disclosing or contributing to disclose the Bid Price shall be made part of the Bid Administration E-mail. Failure to abide to this prescription shall result in the bid being declared non-compliant.

3.4.3.   The Bid Administration E-mail shall include the following Certificates, signed in the original by an authorised representative of the Bidder:

3.4.3.1.   B.1 Certificate of Legal Name of Bidder
3.4.3.2.   B.2: Acknowledgement of Receipt of IFB Amendments
3.4.3.3.   B.3: Certificate of Independent Determination
3.4.3.4.   B.4: Certificate of Bid Validity
3.4.3.5.   B.5: Certificate of Exclusion of Taxes, Duties, and Charges
3.4.3.6.   B.6: Comprehension and Acceptance of Contract Special and General Provisions
3.4.3.7.   B.7: Disclosure of requirements for NCI Agency Execution of Supplemental Agreements (as applicable)
3.4.3.8.   B.8: List of Prospective Subcontractors
3.4.3.9.   B.9: Bidder Background IPR
3.4.3.10.   B.10: List of Subcontractor IPR
3.4.3.11.   B.11: List of Third Party IPR
3.4.3.12.   B.12: Certificate of Origin of Equipment, Services, and Intellectual Property
3.4.3.13.   B.13: List of Proposed Key Personnel
3.4.3.14.   B.14: Disclosure of Involvement of Former NCI Agency Employment
3.4.3.15.   B.15: Information only. Not required to be submitted.
3.4.3.16.   B.16: Certificate of AQAP 2110 or ISO 9001:2015 Compliance or Equivalent
3.4.3.17.   ANNEX D: Bid Guarantee-Standby Letter of Credit. Bidders are reminded that the Bid Guarantee shall reflect any extensions to the Bid Validity Date due to extensions in the Bid Closing Date.

Further, the Bid Guarantee shall be sent by email to the email address specified in paragraph 2.7.1. This email should clearly reference the company name and IFB reference no.

3.4.4.   Concerning Certificate B.7, Disclosure of Requirements for NCI Agency Execution of Supplemental Agreements, Bidders shall note especially the following:

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

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

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

3.2.5   Concerning Certificate B.8, the Contractor shall identify by name, project role, and country of origin, all sub-contractors whose sub-contract value is expected to equal or exceed EUR 125,000, if any. A list of consortium members shall also be completed and included. If there are no sub- contractors/consortium members involved, the Bidder shall state this separately. **The subcontractors listed in this certificate shall be traceable in the Bidding Sheets.**

3.5.   Part 2: Price Proposal E-mail

3.5.1.   Quantity: one (1) electronic MS Excel format file "2_IFB-CO-15049-BITI_Book I-Annex A Bidding Sheets.xlsx" issued as part of this IFB, duly filled and which can be manipulated (i.e. not an image) and be the full and complete Price Quotation.

3.5.2.   **General Rules**

3.5.2.1.   Section A.3. (Instructions for the preparation of Bidding Sheets) to the present Book I illustrates the price bid requirements associated with the completion of the Bidding Sheets. All prescriptions illustrated therein are to be regarded as mandatory. Failure to abide to these prescriptions may lead to the bid being declared non-compliant.

3.5.2.2. Bidders shall prepare their Price Quotation by completing the Bidding Sheets referenced in paragraph 3.5.1, in accordance with the instructions specified in Book I Section A.3. Such documentation constitutes an integral part of this IFB and prescriptions contained therein shall be referred to for the purpose of the evaluation set forth in paragraph 4.4.

3.5.2.3. The structure of the Bidding Sheets shall not be changed (other than as indicated elsewhere) nor should any quantity or item description in the Bidding Sheets. The currency(ies) of each Contract Line Item and sub-item shall be shown. The prices provided shall be intended as the comprehensive total price offered for the fulfilment of all requirements as expressed in the IFB documentation to include those expressed in the SOW.

3.5.2.4. When completing the Bidding Sheets, the Bidder shall insert information in all yellow cells of the Bidding Sheets "CLIN Summary" and complete the "Offer Summary" as instructed. A price for each specified element needs to be supplied on each CLIN. Prices should not be grouped. The prices and quantities entered on the document shall reflect the total items required to meet the Contractual requirements.

3.5.2.5. The total price shall be indicated in the appropriate columns and in the currency quoted. If the price of a line item is expressed in different currencies, these shall be identified, and there shall be as many totals on that line item as there are currencies. In preparing the Price Quotation, Bidders shall ensure that the prices of the Sub-items total the price of the major item of which they constitute a part.

3.5.2.6. Bidders shall **furnish Firm Fixed Prices** in accordance with the format set forth in the instructions for preparation of the Bidding Sheets; and

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

3.5.2.8. Bidders are responsible for the accuracy of their Price Quotations. Price Quotations that have apparent computational errors may have such errors resolved in the Purchaser's favour or, in the case of gross omissions, inconsistencies or errors, may be determined to be non-compliant.

3.5.2.9. Bidders shall quote in their own national currency or in EURO. Bidders may also submit bids in multiple currencies including other NATO member states' currencies under the following conditions:

3.5.2.9.1. the currency is of a "participating country" in the project, **and**

3.5.2.9.2. the Bidder can demonstrate, either through sub-Contract arrangements or in its proposed work methodology, that it will have equivalent expenses in that currency. All major subcontracts and their approximate anticipated value should be listed on a separate sheet and included with the Price Quotation.

3.5.2.10. Bidders are informed that the Purchaser is exempt from all direct taxes (including VAT), and all customs duties on merchandise imported or exported based on Article IX and X of the Ottawa Agreement on the status of the North Atlantic Treaty Organization, National Representative and International Staff.

3.5.2.10.1. Bidders shall therefore **exclude** from their price bid all taxes, duties and customs charges from which the Purchaser is exempted by international agreement and are required to certify that they have done so through execution of the Certificate at Annex B.5.

3.5.2.11. Unless otherwise specified in the instructions for the preparation of Bidding Sheets in A.3., all prices quoted in the proposal shall be on the basis that all deliverable items shall be delivered "Delivery Duty Paid (DDP)" in accordance with the International Chamber of Commerce INCOTERMS ® 2010.

3.5.2.12. All prices bid shall be clearly traceable in the detailed Bidding Sheets.

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

3.5.2.14. The Bidder's attention is directed to the fact that Price Quotation shall contain no document and/or information other than the priced copies of the Bidding Sheets. Any other document will not be considered for evaluation.

3.6.   Part 3: Technical Proposal Package

3.6.1.   Quantity: One Zip file submitted by email, containing files listed in Section 3.6.6.

3.6.2.   The Technical Volume is comprised of three (3) parts. Each of the parts shall be self-contained as a separate electronic file, named as described in section 3.6.3.

   3.6.2.1.   **Part 1: Management Proposal**, as described in paragraph 3.6.5.1.4.
   3.6.2.2.   **Part 2: Engineering Proposal**, as described in paragraph 3.6.5.1.5.
   3.6.2.3.   **Part 3: Supportability Proposal**, as described in paragraph 3.6.5.1.6.

3.6.3.   **No information disclosing or contributing to disclose the Bid Price shall be made part of the Technical Proposal Package. Failure to abide to this prescription shall result in the bid being declared non-compliant.**

3.6.4.   It is of utmost importance that Bidders respond to all of the technical requirements contained in the IFB Statement of Work (including all Annexes) and all the bidding instructions, not only with an affirmation of compliance but also with an explanation of how each requirement will be met. A simple copy / paste of the requirements from the IFB into a proposal will not be constitute sufficient grounds of compliance and may lead to a determination of non-compliance.

3.6.5.   "Arial" fonts in size 12 shall be used for normal text, and "Arial Narrow" fonts not smaller than size 10 for tables and graphics.

3.6.6.   **TECHNICAL PROPOSAL PACKAGE CONTENT:**

   3.6.6.1.   The Technical Proposal shall include:

   3.6.6.1.1.   **Table of Contents:** which lists not only the section headings but also the major sub-sections, and topic headings required set forth in these instructions or implicit in the organization of the Technical Proposal.

   3.6.6.1.2.   **Cross Reference - Traceability Matrix:** Following the Table of Contents, the Bidder shall include a completed Technical Proposal Cross Reference - Traceability Matrix. The Bidder shall confirm that it accepts and will perform the requirements described in the Statement of Work, if awarded the Contract, by completing and

submitting the Cross Reference - Traceability Matrix as detailed in ANNEX F. The Bidder shall complete Column four (4) (Bid Reference) of the Table, citing the appropriate section of the Technical Proposal that corresponds to each paragraph of these Instructions for the Preparation of the Technical Proposal that describes how the respective requirements will be met. The completed Table serves as an index for the Purchaser's Technical Evaluation and also as an aide-memoire to the Bidder to ensure that all the required information has been provided in the Technical Proposal.

3.6.6.1.3. **Executive summary:** Bidders shall provide an overview of the salient features of their technical proposal in the form of an executive summary. The Executive Summary is not mandatory and shall not be evaluated. This summary (if included) shall not exceed 1 page.

3.6.6.1.4. **MANAGEMENT PROPOSAL** (47-page limit excluding Table of Content)

3.6.6.1.4.1. All areas of the management proposal shall comprehensively demonstrate feasibility and reasonableness of the proposed approach.

3.6.6.1.4.2. The Management Proposal shall include:

3.6.6.1.4.3. **Table of Contents**

3.6.6.1.4.3.1. Bidders shall compile a detailed Table of Contents which lists not only the section headings but also the major sub-sections, and topic headings required set forth in these instructions or implicit in the organization of the Management Proposal.

3.6.6.1.4.4. **Draft Project Management Plan (PMP) (30 page limit)**

3.6.6.1.4.4.1. The Bidder shall provide a draft PMP in accordance with Book II, Part IV, Statement of Work Section 4, to include all management aspects of the project such as the Contractor's team's project management structure and project management methodology, control processes and tools/environments, and external dependencies, assumptions and relationship with the Purchaser necessary to provide the capability as required by this Contract.

3.6.6.1.4.5. **Bidder Qualifications (17-page limit)**

3.6.6.1.4.5.1. The Bidder shall demonstrate relevant corporate experience in at least two (2) recent contracts within the last five (5) years for which the Bidder has delivered the same(Scope, Budget and Timeline) as or substantially similar to the proposed effort, with at least one intelligence or military or law enforcement customer. The Bidder shall provide a description of the necessary experiences to support the Project and System Lifecycle of the referenced project(s), thus proving in a measurable way the similarity with the proposed Balkans IT refresh.

3.6.6.1.4.5.2. For each referenced previous project(s) above, the Bidder shall provide a description of the solution deployed/delivered and migration strategy, highlighting similarities to the proposed solution; the purchaser(s) of these system(s); the user(s) of these system(s); the Contract number(s); the start date and end date of the Contract; a point of contact for verification purposes.

3.6.6.1.4.5.3. For each of the proposed key personnel, the Bidder shall provide the CV of each individual in accordance with the format in Bidding Instructions ANNEX E, clearly demonstrating their education and experience as required in Book II, Part IV, Statement of Work, Annex C.

3.6.6.1.4.5.4. For each of the proposed key personnel, the Bidder shall provide an attestation of security clearance of each individual at NATO SECRET level valid for a minimum of one year after the bid closing date.

3.6.6.1.5. **SYSTEM ENGINEERING PROPOSAL** (90-page limit excluding Table of Content and Requirements Traceability Matrix)

3.6.6.1.5.1. All areas of the engineering proposal shall comprehensively demonstrate feasibility and reasonableness of the proposed solution.

3.6.6.1.5.2. The Engineering Proposal shall include:

3.6.6.1.5.3. **Table of Contents**

3.6.6.1.5.3.1. Bidders shall compile a detailed Table of Contents which lists not only the section headings but also the major sub-sections, and

topic headings required set forth in these instructions or implicit in the organization of the Engineering Proposal.

3.6.6.1.5.4. System Design Specification (SDS)

3.6.6.1.5.4.1. The Bidder shall provide support to develop an SDS in accordance with the requirements for an SDS as specified in the Book II, Part IV, Statement of Work, paragraph 4.2.

3.6.6.1.5.4.2. The Bidder shall provide confirmation of support on development of the SDS and a description of the collaboration plan.

3.6.6.1.5.5. Requirements Traceability Matrix (RTM) (no page limit)

3.6.6.1.5.5.1. The Bidder shall provide a Requirement Traceability Matrix (RTM) in accordance with SOW clearly identifying how it aims to fulfil each requirement.

3.6.6.1.5.5.2. The RTM shall relate all SRS requirements to the system elements. The RTM with no-page limit shall be provided in the form of the attached excel file duly filled up: 2 _IFB-CO-15049-BITI_Book I-Requirements Traceability Matrix.xls

3.6.6.1.5.5.3. The Bidder shall provide a description for each type of equipment or software in the SRS (ANNEX A Hardware and Software REQUIREMNTS) matching the SRS table format for each specific item.

3.6.6.1.5.5.4. This RTM shall demonstrate a mature solution which enable to achieve system implementation within the requested milestones in Book II, Part IV, Statement of Work. .

3.6.6.1.5.6. Testing (10-page limit)

3.6.6.1.5.6.1. The Bidder shall provide a draft Test Plan which clearly addresses the objectives stated in Book II, Part IV, Statement of Work.

3.6.6.1.6. **SUPPORTABILITY PROPOSAL** (30-page limit excluding Table of Content)

3.6.6.1.6.1. All areas of the Supportability proposal shall comprehensively demonstrate feasibility and reasonableness of the proposed solution.

3.6.6.1.6.2. The Supportability Proposal shall include

3.6.6.1.6.3. Table of Contents

3.6.6.1.6.3.1. Bidders shall compile a detailed Table of Contents which lists not only the section headings but also the major sub-sections, and topic headings required set forth in these instructions or implicit in the organization of the Supportability Proposal.

3.6.6.1.6.4. Draft Integrated Logistic Support Plan (ILSP) (30-page limit)

3.6.6.1.6.4.1. The Bidder shall provide an Integrated Logistic Support Plan (ILSP) as described in Book II, Part IV, Statement of Work Section 5, demonstrating the Bidder's capabilities in supporting the implementation of the future capability.

3.7. Bidder's Check-List

3.7.1. The tables below provide an overview of all items to be delivered by the Bidder as part of this bid. Bidders are invited to use these tables to verify the completeness of their proposal.

Part 1: Bid Administration Package

	Item	Format	Page Limit
1	B.1: Certificate of Legal Name of Bidder		
2	B.2: Acknowledgment of Receipt of IFB Amendments		
3	B.3: Certificate of Independent Determination		
4	B.4: Certificate of Bid Validity		
5	B.5: Certificate of Exclusion of Taxes, Duties, and Charges		
6	B.6: Comprehension and Acceptance of Contract Special and General Provisions	PDF	No larger than 20 MB -No-page Limit
7	B.7: Disclosure of Requirements for the NCI Agency Execution of Supplemental Agreements		
8	B.8: List of Prospective Sub-Contractors		
9	B.9: Bidder Background IPR		
10	B.10: List of Sub-Contractor IPR		
11	B.11: List of Third Party IPR		
12	B.12: Certificate of Origin of Equipment, Services, and Intellectual Property		
13	B.13: List of Proposed Key Personnel		

14	B.14: Disclosure of Involvement of Former NCI Agency Employment		
15	B.15: Information only. Not required to be submitted		
16	B.16: Certificate of AQAP 2110 or ISO 9001:2008 Compliance or Equivalent		
17	Bid Guarantee		

Volume 2: Price Proposal

	Item	Format	Page Limit
1			No larger than 20 MB - No-page Limit
2	Completed Set of Sheets contained in 2_IFB-CO-15049-BITI Book I Annex A-Bidding Sheets.xlsx	shall be in MS Excel format which can be manipulated (i.e. not an image) and be the full and complete Price Quotation	
3	Offer Summary tab from the Bidding Sheets file	One (1) PDF copy of just the Offer Summary tab from the Bidding Sheets	

Volume 3: Technical Proposal E-mail

	Item	Format	Page Limit
1	**Executive Summary**		1-page limit
2	**Table of Contents**		No-page limit
3	**Cross Reference - Traceability Matrix (1 PDF file)**		No-page limit
5	**Management Proposal**		47-page limit
	a. Table of Contents (No-page limit)		
	b. Draft Project Management Plan (PMP) (30-page limit)		
	c. Bidder Qualifications (17-page limit)		
4	**Engineering Proposal**		90-page limit
	a. Table of Contents (No page limit)		
	b. System Design Specification (SDS) (No page limit)		
	c. Requirements Traceability Matrix (RTM) (no page limit)		
	d. Testing (10-page limit)		

6	**Supportability Proposal**		30-page limit
	a. Table of Contents (No-page limit)		
	b. Draft Integrated Logistic Support Plan (ILSP) (30-page limit)		

END OF SECTION 3

SECTION 4 BID EVALUATION AND CONTRACT AWARD

4.1.   General

4.1.1.   The evaluation of bids will be made by the Purchaser solely on the basis of the requirements in this IFB. Failure to address any of the bidding requirements in this IFB or omission of the critical information may result in a determination of non-compliance for the entire Bid.

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

4.1.3.   To ensure that sufficient information is available, the Bidder shall furnish with its bid all information appropriate to provide a complete description of the work which will be performed and/or the supplies to be delivered. The information provided shall be to a level of detail necessary for the Purchaser to determine exactly what the Bidder proposes to furnish and whether the offer meets the technical, administrative and contractual requirements of this IFB.

4.1.4.   During the evaluation, the Purchaser may request clarification of the bid from the Bidder and the Bidder shall provide sufficient detailed information in connection with such requests as to permit the Purchaser to make a final assessment of the bid based upon the facts. The purpose of such clarifications will be to resolve ambiguities in the bid and to permit the Bidder to state its intentions regarding certain statements contained therein. The purpose of the clarification stage is not to elicit additional information from the Bidder that was not contained in the original submission or to allow the Bidder to supplement cursory answers or omitted aspects of the bid. The Bidder is not permitted any cardinal alteration of the bid regarding technical matters and shall not make any change to its price quotation at any time.

4.1.5.   The Bidder's prompt response to the Purchaser's clarification requests is important and therefore failure to provide the requested clarifications within the time-limits set forth in the specific Clarification Requests (minimum 24 hours next working day) may cause the Bid to be deemed non-compliant

4.1.6. The Purchaser reserves the right, during the evaluation and selection process, to verify any statements made concerning experience and facilities, by making a physical inspection of the Bidder's facilities and capital assets and by interviewing proposed Key Personnel. Physical inspections and interviews shall also apply to assertions in the proposal made on behalf of proposed Subcontractors. The Bidder shall be responsible for providing access to its own or Subcontractors' facilities and personnel.

4.1.7. The evaluation will be conducted in accordance with the Use of Alliance Operations and Missions NSIP Procurement Regulations by the NATO Communications and Information Agency (NCI Agency) set forth in the NATO document AC/4-D(2011)0009-FINAL.

4.2.   Evaluation Procedure

4.2.1.   The evaluation will be done in a 4-step process, as described below:

4.3.   Step 1: Administrative Compliance Evaluation

4.3.1.   Prior to commencement of the Price and Technical evaluation, Bids shall be reviewed for administrative compliance in accordance with paragraph 3.4 of this IFB. The evaluation of the Bid Administrative Package will be made on its completeness, conformity and compliance to the requested information. This evaluation is made to determine if a bid complies with the requirements of the Bidding Instructions and Prospective Contract. Specifically, the following requirements shall be verified:

4.3.1.1.   The Bid was received by the Bid Closing Date and Time.
4.3.1.2.   The Bid Administration Package contains the documentation listed in paragraph 3.4.3, in the proper quantity, and is properly marked.
4.3.1.3.   The Bidder has not taken exception to the Terms and Conditions of the Bidding Instructions and the Prospective Contract or has not qualified or otherwise conditioned its offer on a modification or alteration of the Terms and Conditions or the language of the SOW.

4.3.2.   Subject to the stipulation of paragraph 4.3.1.1 through 4.3.1.3, bids failing to conform to the above requirements may be declared non-compliant and may not undergo further evaluation. Bids that are determined to be administratively compliant will proceed to Step 2, Price Evaluation.

4.3.3.   Notwithstanding paragraph 4.3.2 above, if it is later discovered in the evaluation of the Price Quotation or Technical Proposal that the Bidder has taken exception to the Terms and Conditions of the Bidding Instructions and the Prospective Contract, or has qualified and/or otherwise conditioned its offer on a modification or alteration of the Terms and Conditions or the language of the SOW, the Bidder may be determined to have submitted a non-compliant bid at the point in time of discovery.

4.4.   Step 2: Price Evaluation

4.4.1.   All bids having successfully passed Step 1 shall have their Price Quotation evaluated for the lowest compliant price as follows:

4.4.1.1. Compliance with the requirements for preparation and submission of the Price Quotation in accordance with paragraph 3.5.

4.4.1.2. All pricing data, i.e., quantities, unit prices, unit price currencies, should be provided as reflected in the Bidding Sheets (at A.1).

4.4.1.3. Bid prices include all costs for items supplied, delivered, and supported.

4.4.1.4. The Bidder must have provided accurate unit price and the unit price currency of each of the sub-items added (if any).

4.4.1.5. The Bidder must have provided accurate unit price, unit price currency and total price for each line item.

4.4.1.6. The grand total shall be accurate.

4.4.1.7. All prices should be accurately entered into appropriate columns, and accurately totaled.

4.4.1.8. Bidders shall indicate that in accordance with the treaties governing the terms of business with NATO, exclude from their prices all taxes, duties and customs charges from which the Purchaser has been exempted.

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

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

4.4.1.11. The Price Quotation meets requirements for price realism as described below in paragraph 4.4.3.

4.4.2. Basis of Price Comparison

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

4.4.2.2. The price comparison will be based on the offered Grand Total Firm Fixed Price (i.e. base contract CLINs 1-7) plus evaluated optional CLINs 8-12 in the Offer Summary tab from the Bidding Sheets file including the modelled labour element for engineering support.

4.4.2.3. An award shall be made on the basis of CLIN 1 through 13.

4.4.3. Price Realism

4.4.3.1. In those cases in which the prices quoted in relation with this IFB appear to be unreasonably low in relation to the performance required under the prospective contract and/or the level of effort associated with the tasks, the Purchaser will reserve the right to request the Bidder clarifications aimed to demonstrate the rationale for such circumstances.

4.4.3.2. Indicators of an unrealistically low bid may be the following, amongst others:

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

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

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

4.4.3.3. If the Purchaser has reason to suspect that a Bidder has artificially debased its prices in order to secure contract award, the Purchaser will request clarification of the bid in this regard and the Bidder shall provide explanation on one of the following bases:

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

4.4.3.3.2. The Bidder has a competitive advantage due to prior experience or industrial/technological processes that demonstrably reduce the costs of Bidder performance and therefore the price offered is realistic. Such an argument must support the technical proposal offered and convincing and objectively describe the competitive advantage and the net savings achieved by this advantage over standard market practices and technology.

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

4.4.3.4. If a Bidder fails to submit a comprehensive and compelling response on one of the bases above, the Purchaser may determine the Bid submitted as non-compliant.

4.4.3.5. If the Bidder responds on the basis of paragraph 4.4.3.3.1 above and requests to withdraw from the competition, the Purchaser may, depending on the nature and gravity of the mistake, allow the Bidder to withdraw with or without penalty.

4.4.3.6. If the Purchaser accepts the Bidder's explanation of mistake in paragraph 4.4.3.3.1 and allows the Bidder to accept the Contract at the offered price, or the Purchaser accepts the Bidder's explanation pursuant to paragraph 4.4.3.3.3 above, the Bidder shall agree that the supporting pricing data submitted with his Bid will be incorporated by reference in the resultant contract. The Bidder shall agree as a condition of contract signature, that the pricing data will be the basis of determining fair and reasonable pricing for all subsequent negotiations for modifications of or additions to the contract and that no revisions of proposed prices will be made.

4.4.3.7. If the Bidder presents a convincing rationale pursuant to paragraph 4.4.3.3.2 above, no additional action will be warranted. The Purchaser, however, reserves its right to reject such an argument if the rationale is not compelling or capable of objective analysis. In such a case the Bid may be determined to be non-compliant.

4.5. Step 3: Technical Compliance Evaluation

4.5.1. Upon determination of the lowest-priced and administrative compliant Bid as described above, that Bid shall be evaluated to confirm compliance with criteria associated with the respective sections of the Technical Proposal.

4.5.2. In order for a Bid to be determined to be compliant, the Bidder shall have submitted a Technical Proposal which has met, after evaluation by the Purchaser, all the criteria which are set forth below. All criteria will be evaluated by default also regarding comprehensiveness, feasibility and reasonableness.

4.5.3. As well, the Cross Reference - Traceability Matrix as detailed in ANNEX F shall clearly indicate full compliance with all listed project technical requirements stipulated in the Book II, Part IV, Statement of Work and its Annex A: System Requirements Specification (SRS).

4.5.3.1. **MANAGEMENT PROPOSAL** (47-page limit excluding table of content) with the following information provided:

4.5.3.1.1. **Table of Contents**

4.5.3.1.1.1. A detailed Table of Contents which lists not only the section headings but also the major sub-sections, and topic headings required set forth in these instructions or implicit in the organization of the Management Proposal was provided.

4.5.3.1.2. **Draft Project Management Plan (PMP) (30-page limit)**

4.5.3.1.2.1. The Bidder has provided a draft PMP in accordance with Book II, Part IV, Statement of Work, to include all aspects of the project such as the Contractor's project management structure and project management methodology, control processes and tools/environments, and external relationships and relationship with the Purchaser necessary to provide the capability as required by this Contract.

4.5.3.1.3. **Bidder Qualifications (17-page limit)**

4.5.3.1.3.1. The Bidder has described and demonstrated relevant corporate experience in at least Two (2) recent contract within the last five (5) years for which the Bidder has delivered the same as or substantially similar to the proposed BITI project, with at least one intelligence, military or law enforcement customer. The Bidder has provided a description of the necessary experiences to support the Project and System Lifecycle of the referenced project(s).

4.5.3.1.3.2. For each referenced previous projects above, the Bidder has provided a description of the solution deployed/delivered, highlighting similarities to the proposed solution and migration strategy; the purchaser(s) of these system(s); the user(s) of these system(s); the Contract number(s); the start date and end date of the Contract; a point of contact for verification purposes.

4.5.3.1.3.3. For each of the proposed key personnel, the Bidder has provided the CV of each individual in accordance with the format in ANNEX E, clearly demonstrating their education and experience as required in Book II, Part IV, Statement of Work Annex C.

4.5.3.1.3.4. For each of the proposed key personnel, the Bidder has provided an attestation of security clearance of each individual at NATO SECRET level valid for a minimum of one year after the bid closing date.

4.5.3.2. **ENGINEERING PROPOSAL** (90-page limit excluding table of content and RTM) with the following information provided:

4.5.3.2.1. **Table of Contents (No-page limit)**

4.5.3.2.1.1. A detailed Table of Contents which lists not only the section headings but also the major sub-sections, and topic headings required set forth in these instructions or implicit in the organisation of the Engineering Proposal was provided.

4.5.3.2.2. **System Design Specification (SDS) (no page limit)**

4.5.3.2.2.1.1. The Bidder has provided confirmation of support on development of the SDS and a description of the collaboration plan.

4.5.3.2.2.2. **Requirements Traceability Matrix (RTM) (no page limit)**

4.5.3.2.2.2.1. The Bidder has provided a Requirement Traceability Matrix (RTM) in accordance with SOW clearly identifying how it aims to fulfil each requirement.

4.5.3.2.2.2.2. The RTM has related all SRS requirements to the system elements. The RTM with no-page limit has been provided in the form of an excel file duly filled out in the same format of the SRS Annex A Hardware and Software REQUIREMNTS and named: 2 _IFB-CO-15049-BITI_Book I-Requirements Traceability Matrix.xls

4.5.3.2.2.2.3. The Bidder has provided a description for each type of equipment or software in the SRS (ANNEX A Hardware and Software Requirements) matching the SRS table format for each specific item.

4.5.3.2.2.2.4. This RTM has demonstrated a mature solution which enable to achieve system implementation within the requested milestones in Book II, Part IV, Statement of Work.

4.5.3.2.2.3. **Testing (page limit 10)**

4.5.3.2.2.3.1.   The Bidder has provided a draft Test Plan which clearly addresses the objectives stated in Book II, Part IV, Statement of Work.

4.5.3.3.   **SUPPORTABILITY PROPOSAL** (30-page limit excluding Table of Content) with the following information provided:

4.5.3.3.1.   **Table of Contents**

4.5.3.3.1.1.   A detailed Table of Contents which lists not only the section headings but also the major sub-sections, and topic headings required set forth in these instructions or implicit in the organization of the Supportability Proposal was provided.

4.5.3.3.1.2.   **Draft Integrated Logistic Support Plan (ILSP) (30-page limit)**

4.5.3.3.1.2.1.   The Bidder has provided a draft Integrated Logistic Support Plan (ILSP) as described in Book II, Part IV, Statement of Work., demonstrating the Bidder's capabilities in supporting the implementation of the future capability.

4.6.   **Step 4: Contract Award**

4.6.1.   The contract resulting from this IFB will be awarded to the Bidder whose offer, as evaluated by the Purchaser, is the lowest priced bid in compliance with the requirements of this IFB.

4.6.2.   Bidders that are determined to have submitted non-compliant bids will be so notified and will have an opportunity to challenge such a determination. In such a case, the administrative proposal and the technical proposal of the Bidder who has submitted the apparent second lowest compliant priced bid will be evaluated. The Bidder who has offered the lowest compliant priced, technically compliant bid will then be offered the contract for award.

END OF SECTION 4

ANNEX A   **BIDDING SHEETS**

A.1.   **Bidding Sheets**

<u>IFB-CO-15049-BITI</u>

On behalf of the firm stated below I hereby offer the Purchaser (the NCI Agency) with the services and deliverables (collectively referred as "ITEMS") set forth in the attached schedules, at the specified prices, and subject to the terms and conditions stated in the referenced IFB.

_____   _____

 Date   Signature of Authorised Representative

                                          _____

                                          Printed Name

                                          _____

                                          Title

                                          _____

                                          Company

                                          _____

                                          Bid Reference

A.2.   Bidding Sheets Workbook File

A.2.1.   The Bidding Sheets are attached in the separate Book I Excel Workbook file: "2_ IFB-CO-14049-BITI_Book I Annex A Bidding Sheets.xlsx".

A.3.   Instructions for the Preparation of Bidding Sheets

A.3.1.   Introduction

A.3.1.1.   Bid pricing requirements as addressed in this Annex are mandatory. Failure to abide to the prescriptions of bid submission referred in this section may lead to the bid being declared non-compliant and not being taken into consideration for award.

A.3.1.2.   No alteration of the bidding sheets including but not limited to quantity indications, descriptions or titles are allowed with the sole exception of those explicitly indicated as allowed in this document. Additional price columns may be added if multiple currencies are bid, including extra provisions for all totals.

A.3.2.   General Pricing Requirements

A.3.2.1.   Unless explicitly indicated by the Purchaser through a clarification issued in accordance with the prescriptions of Book I, SECTION 2, paragraph 2.8, the structure of the bidding sheets shall not be altered or otherwise modified in any of its parts. This prescription is to be regarded as applicable also, but not limited to, indicated quantities, item descriptions, references, Purchaser's inserted Not To Exceed (NTE) amounts (if applicable) or any other indication or instruction provided in the Bidding Sheets.

A.3.2.2.   If the Bidder identifies an error in the spreadsheet, it should notify the Purchaser who will make a correction and notify all the Bidders of the update.

A.3.2.3.   Bidders shall indicate Firm Fixed Prices for all CLINs in the bidding sheets.

A.3.2.4.   Offered prices shall not be made conditional in nature nor contain any expressed or implied limitations which conflicts or otherwise amends any of the prescriptions of the IFB.

A.3.2.5. All CLINs (1 through 14) in the Bidding Sheets shall be quoted.

A.3.2.6. Bidders shall fill only yellow marked cells in the Bidding Sheets tab "Offer Summary" and tab "CLIN Summary" and all relevant blue or white cells in the other tabs (Material, Labour, Travel, ODC, Rates).

A.3.2.7. The prices entered on the document shall reflect the total items required to meet the Contractual requirements. The total price shall be indicated in the appropriate columns.

A.3.2.8. In preparing the Bidding Sheets, Bidders shall ensure that the prices of the Sub-items total the price of the major item of which they constitute a part.

A.3.2.9. Should the bid be in other than EURO currency, the award of the Contract will be made in the currency(ies) of the bid.

A.3.2.10. The Purchaser, by virtue of its status under the terms of Article IX and X of the Ottawa Agreement, is exempt from all direct and indirect taxes (incl. VAT) and all customs duties on merchandise imported or exported.

A.3.2.11. Bidders shall therefore exclude from their price bid all taxes, duties and customs charges from which the Purchaser is exempted by international agreement and are required to certify that they have done so through execution of the Certificate at Annex B.5.

ANNEX B   **PRESCRIBED ADMINISTRATIVE FORMS AND CERTIFICATES**

B.1.   Certificate of Legal Name of Bidder

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

Full Name of Corporation: _____

                                 _

Division (If Applicable):   _____

                                 _

Sub Division (If Applicable):   _____

                                 _

Official Mailing Address

E-Mail Address: _____

                                 _

Point of Contact Regarding this bid:
Name: _____

                                 _
Position: _____

                                 _
Telephone: _____

                                 _

Alternative Point of Contact:
Name: _____

                                 _
Position: _____

                                 _
Telephone: _____

                                 _

_____   _____
Date   Signature of Authorised Representative

_____
Printed Name

_____
Title

_____
Company

B.2. Acknowledgement of Receipt of IFB Amendments

Amendment No.	Date of Issued	Date of receipt	Initials

I confirm that the following amendments to Invitation for Bid n° IFB-CO-15049-BITI have been received and the bid, as submitted, reflects the content of such amendments.

_____   _____
 Date   Signature of Authorised Representative

                             _____
                             Printed Name

                             _____
                             Title

                             _____
                             Company

B.3.   Certificate of Independent Determination

It is hereby stated that:

a. We have read and understand all documentation issued as part of IFB-CO-15049-BITI. Our bid submitted in response to the referred solicitation is fully compliant with the provisions of the IFB and the Prospective Contract.

b. Our bid has been arrived at independently, without consultation, communication or agreement, for the purpose of restricting competition, with any other Bidder or with any competitor;

c. The contents of our bid have not been knowingly disclosed by the Bidder and will not knowingly be disclosed by the Bidder prior to award, directly or indirectly to any other Bidder or to any competitor; and

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

_____   _____
 Date   Signature of Authorised Representative

                                                     _____
                                                     Printed Name

                                                     _____
                                                     Title

                                                     _____
                                                     Company

B.4.   Certificate of Bid Validity

I, the undersigned, as an authorised representative of the firm submitting this bid, do hereby certify that the pricing and all other aspects of our bid will remain valid for a period of twelve (12) months from the bid closing date of this Invitation for Bid.

_____   _____
 Date   Signature of Authorised Representative

                                        _____
                                        Printed Name

                                        _____
                                        Title

                                        _____
                                        Company

B.5. Certificate of Exclusion of Taxes, Duties and Charges

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

_____
 Date

_____
Signature of Authorised Representative

_____
Printed Name

_____
Title

_____
Company

B.6.   Comprehension and Acceptance of Contract Special and Contract General Provisions

The Bidder hereby certifies that it has reviewed the Contract Special Provisions and the NCI Agency Contract General Provisions set forth in the Prospective Contract, Book II of this Invitation for Bid. The Bidder hereby provides its confirmation that it fully comprehends the rights, obligations and responsibilities of the Contractor as set forth in the Articles and Clauses of the Prospective Contract. The Bidder additionally certifies that the offer submitted by the Bidder is without prejudice, qualification or exception to any of the Terms and Conditions and it will accept and abide by the stated Special and General Provisions if awarded the Contract as a result of this Invitation for Bid.

_____   _____
  Date   Signature of Authorised Representative

                                     _____
                                     Printed Name

                                     _____
                                     Title

                                     _____
                                     Company

B.7.   Disclosure of Requirements for NCI Agency Execution of Supplemental Agreements

I, the undersigned, as an authorised representative of _____, certify the following statement:

All supplemental agreements, defined as agreements, documents and/or permissions outside the body of the Contract but are expected to be required by my Government, and the governments of my subcontractors, to be executed by the NCI Agency as a condition of my firm's performance of the Contract, have been identified, as part of the bid.

These supplemental agreements are listed as follows:

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

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

We recognise that additional supplemental agreements, documents and permissions presented as a condition of Contract performance or Memorandum of Understanding (MOU) signature after our firm would be selected as the successful bidder may be cause for the NCI Agency to determine the submitted bid to be non-compliant with the requirements of the IFB.

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

_____   _____
Date   Signature of Authorised Representative

                                                         _____

Printed Name

_____ _____
Title   Company

B.8. List of Prospective Subcontractors

Name and Address of Sub-Bidder	DUNS Number[1]	Primary Location of Work	Items/Services to be Provided	Estimated Value of Sub-Contract

_____
Date

_____
Signature of Authorised Representative

_____
Printed Name

_____
Title

_____
Company

_____
Bid Reference

---

[1] Data Universal Numbering System (DUNS). Bidders are requested to provide this data in order to help NCI Agency to correctly identify Subcontractors. If a Subcontractor's DUNS is not known this field may be left blank.

B.9. Bidder Background IPR

I, the undersigned, as an authorised representative of Bidder
_____, warrant, represent, and undertake that:

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

Item	Description / IP Ownership	Indicate if COTS[1]

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

c. The Background IPR stated above complies with the terms specified in Clause 24
    of the Contract Special Provisions and shall be licensed to the Purchaser
    according to the terms and conditions specified therein and in Clause 30 of the
    Contract General Provisions.

_____   _____
 Date   Signature of Authorised Representative

                         _____
                         Printed Name

                         _____
                         Title

                         _____
                         Company

                         _____
                         Bid Reference

Indicate whether the IPR is applicable to a COTS product as defined in the Contract General Provisions.

B.10.   List of Subcontractor IPR

I, the undersigned, as an authorised representative of Bidder
_____, warrant, represent, and undertake that:

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

Item	Description / IP Ownership	Indicate if COTS[2]

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

c. The Subcontractor IPR stated above complies with the terms specified in Clause 24 of the Contract Special Provisions and shall be licensed to the Purchaser according to the terms and conditions specified therein and in Clause 30 of the Contract General Provisions.

_____

 Date

_____

Signature of Authorised Representative

_____

Printed Name

_____

Title

_____

Company

_____

---

[2] Indicate whether the IPR is applicable to a COTS product as defined in the General Contract Provisions.

Bid Reference

B.11.   List of Third Party IPR

I, the undersigned, as an authorised representative of Bidder
_____, warrant, represent, and undertake that:

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

Item	Description / IP Ownership	Indicate If COTS[1]

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

c. The Third Party IPR stated above complies with the terms specified in Clause 24 of the Contract Special Provisions and shall be licensed to the Purchaser according to the terms and conditions specified therein and in Clause 30 of the Contract General Provisions.

_____
  Date

_____
Signature of Authorised Representative

_____
Printed Name

_____
Title

_____
Company

_____
Bid Reference

Indicate whether the IPR is applicable to a COTS product as defined in the General Contract Provisions

B.12.   Certificate of Origin of Equipment, Services, and Intellectual Property

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

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

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

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

_____   _____
 Date   Signature of Authorised Representative

                                                        _____
                                                        Printed Name

                                                        _____
                                                        Title

                                                        _____
                                                        Company

                                                        _____
                                                        Bid Reference

B.13.   List of Proposed Key Personnel

Position	SOW Reference(s)	Labour Category	Name	Designation Period
Project Manager	Annex C.1	*To be completed by the Bidder*	*To be completed by the Bidder*	EDC through End of Contract
Technical Lead	Annex C.1	*To be completed by the Bidder*	*To be completed by the Bidder*	EDC through End of Contract
Technical Writer / Author ILS Manager	Annex C.1	*To be completed by the Bidder*	*To be completed by the Bidder*	EDC through End of Contract
VMware Certified Professional (VCP)	Annex C.1	*To be completed by the Bidder*	*To be completed by the Bidder*	EDC through End of Contract

*EDC : Effective Date of Contract

B.14. Disclosure of Involvement of Former NCI Agency Employment

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

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

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

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

☐ Has obtained a signed statement from the former NCI Agency personnel below, who departed the NCI Agency within the last two years, that they were not previously involved in the project under competition (as defined in the extract of the NCI Agency Code of Conduct provided in Annex B-15 of this IFB):

Employee Name	Former NCI Agency Position	Current Company Position

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

Date: ....

Signature: ....

Name & Title :   ....

Company: ....

Bid Reference   :   ....

B.15.   NCI Agency AD. 05.00, Code of Conduct: Post Employment Measures

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

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

3. In addition to paragraph 2 above, former NCI Agency Personnel at grades A5 and above or ranks OF-5 and above are prohibited during twelve months following the end of their employment with the NCI Agency to engaging in negotiations, representational communications and/or advisory activities with the NCI Agency on behalf of a private entity, unless this has been agreed in advance by the NCI Agency General Manager and notified to the Agency Supervisory Board (ASB).

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

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

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

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

B.16.   Certificate of Compliance AQAP 2110 or ISO 9001:2015 or Equivalent

I hereby certify that _____(name of Company) possesses and applies Quality Assurance Procedures/Plans that are equivalent to the AQAP 2110 or ISO 9001:2015 as evidenced through the attached documentation[1].
.

_____   _____

  Date   Signature of Authorised Representative

                                                   _____
                                                   Printed Name

                                                   _____
                                                   Title

                                                   _____
                                                   Company

---

[1] Bidders must attach copies of any relevant quality certification.

ANNEX C   **CLARIFICATION REQUEST FORM**

IFB-CO-15049-BITI

Company Name:
Submission Date:

ADMINISTRATIVE or CONTRACTUAL			
Serial#	**IFB Ref.**	**Bidder's Question**	**NCI Agency's Response**
A.1			
A.2			
A.3			

IFB-CO-15049-BITI

Company Name:
Submission Date:

		PRICE	
Serial#	**IFB Ref.**	**Bidder's Question**	**NCI Agency's Response**
P.1			
P.2			
P.3			

IFB-CO-15049-BITI

Company Name:
Submission Date:

TECHNICAL			
Serial#	**IFB Ref.**	**Bidder's Question**	**NCI Agency's Response**
T.1			
T.2			
T.3			

ANNEX D   BID GUARANTEE - STANDBY LETTER OF CREDIT

Standby Letter of Credit Number:

Issue Date: _____

Beneficiary: NCI Agency,
                 Financial Management Resource Centre,
                 Boulevard Leopold III,
                 B-1110 Brussels,
                 Belgium

Expiry Date: _____

1. We, (issuing bank) hereby establish in your favour our irrevocable standby letter of credit number {number} by order and for the account of (NAME AND ADDRESS OF BIDDER) in the original amount of €300,000.00 (Three Hundred Thousand Euro). We are advised this Guarantee fulfils a requirement under Invitation for Bid IFB-CO-15049-BITI dated _____.

2. Funds under this standby letter of credit are available to you upon first demand and without question or delay against presentation of a certificate from the NCI Agency Contracting Officer that:

a) (NAME OF BIDDER) has submitted a Bid and, after Bid Closing Date (including extensions thereto) and prior to the selection of the lowest priced, technically compliant Bid, has withdrawn his Bid, or stated that he does not consider his Bid valid or agree to be bound by his Bid, or

b) (NAME OF BIDDER) has submitted a Bid determined by the Agency to be the lowest priced, technically compliant Bid, but (NAME OF BIDDER) has declined to execute the Contract offered by the Agency, such Contract being consistent with the terms of the Invitation for Bid, or

c) The NCI Agency has offered (NAME OF BIDDER) the Contract for execution but (NAME OF BIDDER) has been unable to demonstrate compliance with the security requirements of the Contract within a reasonable time, or

d) The NCI Agency has entered into the Contract with (NAME OF BIDDER) but (NAME OF BIDDER) has been unable or unwilling to provide the Performance Guarantee required under the terms of the Contract within the time frame required.

3. This Letter of Credit is effective the date hereof and shall expire at our office located at (Bank Address) on _____. All demands for payment must be made prior to the expiry date.

4.   It is a condition of this letter of credit that the expiry date will be automatically extended without amendment for a period of sixty (60) calendar days from the current or any successive expiry date unless at least thirty (30) calendar days prior to the then current expiry date the NCI Agency Contracting Officer notifies us that the Letter of Credit is not required to be extended or is required to be extended for a shorter duration.

5.   We may terminate this letter of credit at any time upon sixty (60) calendar days notice furnished to both (NAME OF BIDDER) and the NCI Agency by registered mail.

6.   In the event we (the issuing bank) notify you that we elect not to extend the expiry date in accordance with paragraph 4 above, or, at any time, to terminate the letter of credit, funds under this credit will be available to you without question or delay against presentation of a certificate signed by the NCI Agency Contracting Officer which states:

"The NCI Agency has been notified by {issuing bank} of its election not to automatically extend the expiry date of letter of credit number {number} dated {date} pursuant to the automatic renewal clause (or to terminate the letter of credit).   As of the date of this certificate, no suitable replacement letter of credit, or equivalent financial guarantee has been received by the NCI Agency from, or on behalf of (NAME OF BIDDER), and the NCI Agency, as beneficiary, hereby draws on the standby letter of credit number _____ in the amount of € (Amount up to the maximum available under the LOC), such funds to be transferred to the account of the Beneficiary number _____ (to be identified when certificate is presented)."

Such certificate shall be accompanied by the original of this letter of credit and a copy of the letter from the issuing bank that it elects not to automatically extend the standby letter of credit, or terminating the letter of credit.

7.   The Beneficiary may not present the certificate described in paragraph 6 above until 20 (twenty) calendar days prior to a) the date of expiration of the letter of credit should {issuing bank} elect not to automatically extend the expiration date of the letter of credit, b) the date of termination of the letter of credit if {issuing bank} notifies the Beneficiary that the letter of credit is to be terminated in accordance with paragraph 6 above.

 8. Multiple drawings are allowed.

 9. Drafts drawn hereunder must be marked, "Drawn under {issuing bank} Letter of Credit No. {number}" and indicate the date hereof.

10. This letter of credit sets forth in full the terms of our undertaking, and this undertaking shall not in any way be modified, amended, or amplified by reference to any document, instrument, or agreement referred to herein (except the International Standby Practices (ISP 98) hereinafter defined) or in which this letter of credit is referred to or to which this letter of credit relates, and any such reference shall not be deemed to incorporate herein by reference any document, instrument, or agreement.

11. We hereby engage with you that drafts drawn under and in compliance with the terms of this letter of credit will be duly honoured upon presentation of documents to us on or before the expiration date of this letter of credit.

12. This Letter of Credit is subject to The International Standby Practices-ISP98 (1998 Publication) International Chamber of Commerce Publication No.590.

ANNEX E   **CV/RESUME TEMPLATE**

Company name

Proposed Team: **Please select**
Clearance Level: **Please select**
Proposed Role: **Click here to enter text**
Key Personnel: ☐

Employment History		
Company (most recent first)	Position	Dates
Summary of role	Click here to enter text	
Summary of relevance	Click here to enter text	
Company	Position	Dates
Summary of role	Click here to enter text	
Summary of relevance	Click here to enter text	
Company	Position	Dates
Summary of role	Click here to enter text	
Summary of relevance	Click here to enter text	
Summary of other experience		
Click here to enter text		

Education, Qualifications and Professional Membership			
Year	Qualification	Institution	Grade/Level

Relevant Experience
Describe experience and specify level of experience as Expert, Extensive, Familiar, or Limited[1])
Summary of experience and capability areas
Role-Specific Skills and Experience *(describe experience and specify level of experience as Expert, Extensive, Familiar, or Limited[1])*
Summary of skills and experience relevant to the proposed role
Tools and Methodologies *(describe experience and specify level of experience as Expert, Extensive, Familiar, or Limited[1])*
Summary of experience with relevant tools and methodologies
International Working Environments
Summary of experience working in international working environments

Language Proficiency *(as defined in STANAG 6001)*				
	Listening	Speaking	Reading	Writing
English (working language)	Select Level	Select Level	Select Level	Select Level
French	Select Level	Select Level	Select Level	Select Level

[1] **Expert** – is recognized by peers as a subject matter expert through experience, published work, and/or qualifications

Extensive – has direct experience accumulated over a number of years, and relevant qualifications where applicable

Familiar – has some direct experience, more extensive experience in a related area, and/or has undertaken relevant training

Limited – has awareness through indirect experience or related work

ANNEX F   CROSS REFERENCE – TRACEABILITY MATRIX

Bidders shall complete column "BID REFERENCE" with Bid references that locate the technical proposal documentation required by the IFB, e.g. section, paragraph, table *(if applicable)*, page number etc. Copy of the duly completed Cross Reference/ Traceability Matrix is to be included in the Bid Technical Proposal Package. Table must identify the IFB portions for the Equipment Categories for which the Bid is submitted. The Bid shall follow the instructions in paragraph 3.6, and will be evaluated according to the instructions in paragraph 4.5.

Book I Bidding Instructions Ref	Book II Reference	EVALUATION FACTORS AND CRITERIA	BID REFERENCE
3.6.5.1.1		Table of contents.	To be completed by the Bidder
3.6.5.1.2	SOW & SRS	Cross reference - Traceability matrix: shall clearly indicate full compliance with all listed project technical requirements stipulated in the SOW and SRS.	To be completed by the Bidder
Management			
		Table of contents	To be completed by the Bidder
3.6.5.1.4.4.1	SOW	The Bidder provided a draft PMP in accordance with Book II, Part IV, Statement Of Work Section 4, to include all aspects of the project such as the Contractor's project management structure and project management methodology, control processes and tools/environments, and external relationships and relationship with the Purchaser	To be completed by the Bidder

Book I Bidding Instructions Ref	Book II Reference	EVALUATION FACTORS AND CRITERIA	BID REFERENCE
		necessary to provide the capability as required by this Contract.	
3.6.5.1.4.5	SOW	The Bidder has described and demonstrated relevant corporate experience in at least Two (2) recent contract within the last five (5) years for which the Bidder has delivered the same as or substantially similar to the proposed BITI project, with at least one intelligence, military or law enforcement customer. The Bidder has provided a description of the necessary experiences to support the Project and System Lifecycle of the referenced project(s). For each referenced previous projects above, the Bidder has provided a description of the solution deployed/delivered, highlighting similarities to the proposed solution and migration strategy; the purchaser(s) of these system(s); the user(s) of these system(s); the Contract number(s); the start date and end date of the Contract; a point of contact for verification purposes. For each of the proposed key personnel, the Bidder has provided the CV of each individual in accordance	To be completed by the Bidder

Book I Bidding Instructions Ref	Book II Reference	EVALUATION FACTORS AND CRITERIA	BID REFERENCE
		with the format in ANNEX E, clearly demonstrating their education and experience as required in Book II, Part IV, Statement of Work Annex B. For each of the proposed key personnel, the Bidder has provided an attestation of security clearance of each individual at NATO SECRET level valid for a minimum of one year after the bid closing date.	
System Engineering			
3.6.5.1.5.3		Table of content	To be completed by the Bidder
3.6.5.1.5.4.	SOW and all annexes	The Bidder has provided confirmation of support on development of the SDS as per SOW and a description of the collaboration plan.	To be completed by the Bidder
3.6.5.1.5.5.	SOW and SRS	The Bidder has provided a Requirement Traceability Matrix (RTM) in accordance with SOW clearly identifying how it aims to fulfil each requirement. The RTM has related all SRS requirements to the system elements. The RTM with no-page limit has been provided in the form of an excel file duly filled	To be completed by the Bidder

Book I Bidding Instructions Ref	Book II Reference	EVALUATION FACTORS AND CRITERIA	BID REFERENCE
		out in the same format of the SRS Annex A Hardware and Software REQUIREMNTS and named: 2 _IFB-CO-15049-BITI_Book I-Requirements Traceability Matrix.xls The Bidder has provided a description for each type of equipment or software in the SRS (ANNEX A Hardware and Software REQUIREMNTS) matching the SRS table format for each specific item.	
3.6.5.1.5.6	SOW	The Bidder has provided a draft Test Plan which clearly addresses the objectives stated in Book II, Part IV, Statement of Work.	To be completed by the Bidder
Supportability			
3.6.5.1.6.3		Table of content	To be completed by the Bidder
3.6.5.1.6.4	SOW Section 5	The Bidder has provided a draft Integrated Logistic Support Plan (ILSP) as described in Book II, Part IV, Statement of Work., demonstrating the Bidder's capabilities in supporting the implementation of the future capability.	To be completed by the Bidder

END OF BOOK I

Bidding Sheets Instructions

INTRODUCTION & IMPORTANT NOTES

| | **Bidders should note that NCIA has recently updated its bidding sheet template and are encouraged to read the instructions in full for this new version before completing the bidding sheets.**

All bidders are required to submit pricing details to demonstrate the Purchaser's Pricing Principles are being applied as part of their bids. All data submitted in these sheets shall be complete, verifiable and factual and include the required details. Any exclusions may render the bid as non compliant thus removing the bidder from the bidding process.

Bidders are **REQUIRED** to complete the following tabs:
- **"Offer Summary"**,
- **"CLIN Summary"**,
- **"Labour"**,
- **"Material"**,
- **"Travel"**,
- **"ODC"**,
- **"Rates"**.
Note that input cells in the "Offer Summary" and the "CLIN Summary" tabs are colour coded YELLOW.

The instructions for the detailed tabs can be found below, as well as in the green boxes within each detailed tab. G&A, Overhead, material handling and other indirect rates do not need to be separately calculated in the detail sheets but must be included in the totals for each category (Labour/Material/Travel/ODC) as appropriate. A list of the direct and indirect rates applied in the bid must also be provided in the "Rates" tab, although they do not need to be linked to any and the detailed calculations. The list of these rates will be requested in pre-contract award from the winning bidder. |

Note: any information found within GREEN boxes throughout the entire document is provided as an instruction and/or example only.

Any formulas provided in these bidding sheets are intended only to assist the bidder. Any changes in formula can be made at the bidder's discretions, as long as the detailed costs are clear, traceable and accurate as required. Ultimately the bidder is responsible for **ALL** values, formulas and calculations within the bidding sheets that are submitted to the Agency.

Bids in MULTIPLE CURRENCIES should follow the following instructions:
- For the "Offer Summary" tab bidders must add "Firm Fixed Price" column to the right of the current table for each additional currency.
- For the "CLIN Summary" tab, Bidders have 2 options: A) Two columns "Unit Price" and "Total Firm Fixed Price" may be added to the right of the current table for each additional currency of the bid; B) Bidders may duplicate the CLIN Summary tab for each currency bid.
- For the Detailed tabs Bidders have 2 options: A) Provide all the detailed data for all currencies in the table provided, selecting the individual currencies from the dropdown lists and summing only common currencies together in CLIN Summary/Offer Summary Sheets B) Duplicate the CLIN Summary tab for each currency bid.

DETAILED TABs	DESCRIPTION
MATERIAL **LABOUR** **TRAVEL** **ODCs**	The detailed tables are to be completed by the bidder with all columns populated, and shall be expanded to include as many rows as necessary to provide the detail requested. Any unnecessary rows should be deleted (no blank entries). The bidder is required to identify for each item the CLIN it is associated with from the drop down menu. Each column should then be populated using the column- specific instructions in the first row. Bidder may not delete columns within tables, or omit information from columns, but may add columns if necessary, although it's not anticipated this will be needed. Note CLINs with no costs associated with that item should also be selected within the table, and noted that there is no cost within that table for the CLIN. For example, if there is no labour associated with CLIN X.1, Select CLIN X.1 in the first column and then in the second column note "No Labour is associated with this CLIN". This will help to ensure that all the proper detail has been accounted for and properly allocated. Important Note: The Total sum of the "fully burdened" cost column should equal the grand total cost for each category (Labour, Material, etc.) to include profit as well as all indirect rates (G&A/Overhead/Material handling/etc.) associated with that category. These indirect rates must be included in the total firm fixed price on the appropriate detailed tab but are no longer required to be shown as separate calculations at the bidding stage. However, the bidder is required to include the associated indirect costs in the totals of the detailed tab in the base unit costs. Alternatively, the bidder may choose to show these as separate calculations by expanding the table columns to show the additional costs due to these indirect rates (similar to the way profit is calculated). Note again although the detailed indirect rate calculations are not required at the bidding stage, this information will be requested from the winning bidder during pre-contract award discussions.

RATES	As discussed previously in these instructions, the detailed indirect rate calculations are not required to be included in the bidding sheets, although the bidders may chose to do so. However, ALL bidders are required to state the G&A/OH/Material handling and any other indirect rates that they have applied to the bid.

CLIN Number	CLIN DESCRIPTION	Firm Fixed Price
	Declare Currency =>	
Grand Total Firm fixed Price - Base Contract		-
Grand Total Firm fixed Price - Base Contract + Evaluated Options		-
Grand Total Firm fixed Price - Base Contract + Evaluated Options + Non-Evaluated Options		-
CLIN 1	Project Management Activities	-
CLIN 2	Site Survey	-
CLIN 3	Achieve PSA	-
CLIN 4	System Acceptance(FSA)	-
CLIN 5	ILS	-
CLIN 6	Procurment HW/SW	-
CLIN 7	Engineering Support	-
Total Firm Fixed Price Base Contract		**-**
CLIN 8	Project Management Activities	-
CLIN 9	Achieve PSA	-
CLIN 10	System Acceptance (FSA)	-
CLIN 11	ILS	-
CLIN 12	Procurment HW/SW	-
Total Firm Fixed Price Evaluated Options		**-**
CLIN 13	CUR 1904	-
CLIN 14	CUR 2025	-
Total Firm Fixed Price Non-Evaluated Options		**-**

IFB-CO-15049-BITI CLIN Summary **BASIC CONTRACT**							
CLIN	**Description**	**SOW Reference**	**Required Completion Date**	**Delivery Destination**	**Unit of measure**	**Quantity**	**Unit Price**	**Total Firm Fixed Price**	**Optional Comments (Mandatory for zero costs lines)**
							Declare Currency =>		
1	**Project Management Activities**								
1.1	Project Management	SOW Section 4.1	All project lifecyle	NCIA	Lot	1	-	-	
1.2	PMP KFOR HQ	SOW Section 4.1	EDC + 8 weeks	NCIA	Lot	1	-	-	
1.3	PMP all approved locations	SOW Section 4.1	EDC + 20 weeks	NCIA	Lot	1	-	-	
TOTAL PRICE CLIN 1								-	
2	**Site Survey**								
2.1	Site Survey Pristina	SOW Section 3 & 4	EDC + 4 weeks	NCIA and Required location	Lot	1	-	-	
2.2	Site Survey Sarajevo	SOW Section 3 & 4	EDC + 12 weeks	NCIA and Required location	Lot	1	-	-	
2.3	Site Survey Skopje	SOW Section 3 & 4	EDC + 12 weeks	NCIA and Required location	Lot	1	-	-	
2.4	Site Survey Thessaloniki	SOW Section 3 & 4	EDC + 12 weeks	NCIA and Required location	Lot	1	-	-	
2.5	Site Survey Belgrade	SOW Section 3 & 4	EDC + 12 weeks	NCIA and Required location	Lot	1	-	-	
2.6	Site Survey SHAPE	SOW Section 3 & 4	EDC + 12 weeks	NCIA and Required location	Lot	1	-	-	
2.7	Site Survey Naples	SOW Section 3 & 4	EDC + 12 weeks	NCIA and Required location	Lot	1	-	-	
TOTAL PRICE CLIN 2								-	
3	**Achieve PSA**								
3.1	SDS KFOR HQ	SOW Section 4	EDC + 8 weeks	NCIA	Lot	1	-	-	
3.2	SDS All other approved locations	SOW Section 4	EDC + 20 weeks	NCIA	Lot	1	-	-	
3.3	SIDP KFOR HQ	SOW Section 4	EDC + 8 weeks	NCIA	Lot	1	-	-	
3.4	SIDP All other approved locations	SOW Section 4	EDC + 20 weeks	NCIA	Lot	1	-	-	
3.5	Achieve PSA KFOR HQ	SOW Section 3 & 4	EDC + 22 weeks	NCIA and Pristina - Camp Film City	Lot	1	-	-	
3.6	Achieve PSA NHQSA HQ	SOW Section 3 & 4	EDC + 39 weeks	NCIA and Sarajevo - Camp Butmir	Lot	1	-	-	
3.7	Achieve PSA NHQ Skopje	SOW Section 3 & 5	EDC + 44 weeks	NCIA and Skopje NLO	Lot	1	-	-	
3.8	Achieve PSA Commz	SOW Section 3 & 4	EDC + 48 weeks	NCIA and Thessaloniki - COMM-Z	Lot	1	-	-	
3.9	Achieve PSA Belgrade	SOW Section 3 & 4	EDC + 53 weeks	NCIA and Belgrade MLO	Lot	1	-	-	
3.10	Achieve PSA KFOR Remotes	SOW Section 3 & 4	EDC + 31 weeks	NCIA and Pristina	Lot	1	-	-	
3.11	Achieve PSA NHQSA Remotes	SOW Section 3 & 4	EDC + 57 weeks	NCIA and SHAPE, Naples	Lot	1	-	-	
TOTAL PRICE CLIN 3								-	
4	**Final System Acceptance (FSA)**								
4.1	Test Documentation KFOR HQ	SOW Section 6	EDC + 10 weeks	NCIA	Lot	1	-	-	
4.2	Test Plan Documentation of all other aproved locations	SOW Section 6	EDC +26 weeks	NCIA	Lot	1	-	-	
4.3	Systems Acceptance (FSA) KFOR HQ	SOW Section 3 & 4	EDC + 64 weeks	NCIA			-	-	
4.4	Systems Acceptance (FSA) of all other aproved locations	SOW Section 3 & 4	EDC + 64 weeks	NCIA	Lot	1	-	-	
TOTAL PRICE CLIN 4								-	
5	**ILS**								
5.1	Integrated Logistics Support Plan KFOR HQ	SOW Section 5	EDC + 8 weeks	NCIA	Lot	1	-	-	
5.2	Integrated Logistics Support Plan All other approved locations	SOW Section 5	EDC + 20 weeks	NCIA	Lot	1	-	-	
5.3	ILS, Support&Maintenance concept, LSA&RMA data, SWDL; KFOR HQ	SOW Section 5	EDC + 8 weeks	NCIA	Lot	1	-	-	
5.4	ILS, Support&Maintenance concept, LSA&RMA data, SWDL; All other approved locations	SOW Section 5	EDC + 20 weeks	NCIA	Lot	1	-	-	
5.5	Supply Support ,Technical Documentation (incl. Manuals, ABDs); KFOR HQ	SOW Section 5	EDC + 22 weeks	NCIA and Delivery Destination	Lot	1	-	-	
5.6	Supply Support ,Technical Documentation (incl. Manuals, ABDs); All other approved locations	SOW Section 5	EDC + 31; EDC + 39; EDC+44; EDC+48; EDC+53; EDC+57; weeks	NCIA and Delivery Destination	Lot	1	-	-	
5.7	Packaging, Handling, Storage and Transportation; KFOR HQ	SOW Section 5	EDC+10 weeks	Delivery Destination	Lot	1	-	-	
5.8	Packaging, Handling, Storage and Transportation; All other approved locations	SOW Section 5	EDC + 26 weeks	Delivery Destination	Lot	1	-	-	
5.9	Configuration Management (incl. CMDB, baselines and PCAs) KFOR HQ	SOW Section 8	EDC + 22 weeks	NCIA	Lot	1	-	-	
5.10	Configuration Management (incl. CMDB, baselines and PCAs) all other approved locations	SOW Section 8	EDC + 31; EDC + 39; EDC+44; EDC+48; EDC+53; EDC+57 weeks	NCIA	Lot	1	-	-	
5.11	Training (incl. courses, on-site T3 Trg, Training material and documentation)	SOW Section 5	EDC+22 weeks, EDC+39 weeks	NCIA	Lot	1	-	-	
5.12	Warranty PSA to FSA +12 month; KFOR HQ	SOW Section 5	FSA + 12 month	NCIA	Lot	1	-	-	
5.13	Warranty PSA to FSA +12 month; All other approved locations	SOW Section 5	FSA + 12 month	NCIA	Lot	1	-	-	
TOTAL PRICE CLIN 5								-	
6	**Procurment HW/SW**								
6.1	**KFOR HQ (MS, NS, NU)**								
6.1.1	Router Large COTS	A.1.1.1	EDC+10 weeks	Pristina - Camp Film City	each	1	-	-	
6.1.2	Router License for IPSEC	A.1.1.7	EDC + 26 weeks	Pristina - Camp Film City	each	1	-	-	
6.1.3	Router Small Tempest C	A.1.1.2	EDC + 26 weeks	Pristina - Camp Film City	each	3	-	-	
6.1.4	Data Center Switch TOR (SFP) Tempest C	A.1.2.2	EDC+10 weeks	Pristina - Camp Film City	each	2	-	-	
6.1.5	Data Center Switch TOR (SFP) COTS	A.1.2.2	EDC+10 weeks	Pristina - Camp Film City	each	2	-	-	

6.1.6	Core Switch Tempest C	A.1.3.1	EDC+10 weeks	Pristina - Camp Film City	each	4	-	-
6.1.7	Core Switch COTS	A.1.3.1	EDC+10 weeks	Pristina - Camp Film City	each	2	-	-
6.1.8	Access Switch Large (SFP) Tempest C	A.1.3.2	EDC+10 weeks	Pristina - Camp Film City	each	17	-	-
6.1.9	Access Switch Small (SFP) Tempest C	A.1.3.3	EDC+10 weeks	Pristina - Camp Film City	each	6	-	-
6.1.10	Access Switch Large (SFP) COTS	A.1.3.2	EDC+10 weeks	Pristina - Camp Film City	each	2	-	-
6.1.11	Access Switch Small (SFP) COTS	A.1.3.3	EDC+10 weeks	Pristina - Camp Film City	each	3	-	-
6.1.12	Access Switch Large (UTP) COTS	A.1.3.4	EDC+10 weeks	Pristina - Camp Film City	each	5	-	-
6.1.13	Access Switch Small (UTP) COTS	A.1.3.5	EDC+10 weeks	Pristina - Camp Film City	each	5	-	-
6.1.14	SFP Modules (Access 1Gb short)	A.1.7.3	EDC+10 weeks	Pristina - Camp Film City	each	595	-	-
6.1.15	SFP Modules (Interconnect 10Gb, short)	A.1.7.5	EDC+10 weeks	Pristina - Camp Film City	each	8	-	-
6.1.16	SFP Modules (Interconnect 10Gb, medium)	A.1.7.6	EDC+10 weeks	Pristina - Camp Film City	each	100	-	-
6.1.17	Virtual Host Server and storage (Large) Tempest C	A.1.8	EDC+10 weeks	Pristina - Camp Film City	each	8	-	-
6.1.18	Virtual Host Server and storage (Medium) Tempest C	A.1.9	EDC+10 weeks	Pristina - Camp Film City	each	6	-	-
6.1.19	Virtual Host Server and storage (Medium) COTS	A.1.9	EDC+10 weeks	Pristina - Camp Film City	each	6	-	-
6.1.20	Virtual Host Witness Server Tempest C	A.1.12	EDC+10 weeks	Pristina - Camp Film City	each	1	-	-
6.1.21	Virtual Host witness server COTS	A.1.12	EDC+10 weeks	Pristina - Camp Film City	each	1	-	-
6.1.22	Physical Server (Domain Controller) Tempest C	A.1.13	EDC+10 weeks	Pristina - Camp Film City	each	2	-	-
6.1.23	Physical Server (Domain Controller) COTS	A.1.13	EDC+10 weeks	Pristina - Camp Film City	each	1	-	-
6.1.24	Backup Server (Large) Tempest C	A.1.14	EDC+10 weeks	Pristina - Camp Film City	each	1	-	-
6.1.25	Backup Server (Small) Tempest C	A.1.15	EDC+10 weeks	Pristina - Camp Film City	each	2	-	-
6.1.26	Backup Servers (Small) COTS	A.1.15	EDC+10 weeks	Pristina - Camp Film City	each	2	-	-
6.1.27	GEO Datastore (10 TB, low performance) Tempest	A.1.16	EDC+10 weeks	Pristina - Camp Film City	each	2	-	-
6.1.28	Tape Library Tempest C	A.1.17	EDC+10 weeks	Pristina - Camp Film City	each	3	-	-
6.1.29	Tape Library COTS	A.1.17	EDC+10 weeks	Pristina - Camp Film City	each	2	-	-
6.1.30	Tape Media Tempest C	A.1.18	EDC+10 weeks	Pristina - Camp Film City	each	3	-	-
6.1.31	Tape Media COTS	A.1.18	EDC+10 weeks	Pristina - Camp Film City	each	2	-	-
6.1.32	Mailguards + 1 Year Support	A.1.21	EDC+10 weeks	Pristina - Camp Film City	each	2	-	-
6.1.33	NIPS License COTS	A.1.22	EDC+10 weeks	Pristina - Camp Film City	each	6	-	-
6.1.34	XML-Labelling Guard + 1 Year Support	A.1.23	EDC+10 weeks	Pristina - Camp Film City	each	2	-	-
6.1.35	Intentionally Blank	A.1.24	EDC+10 weeks	Pristina - Camp Film City	each	0	-	-
6.1.36	Rack (incl. PDU, Fans)	A.1.26	EDC+10 weeks	Pristina - Camp Film City	each	10	-	-
6.1.37	Rack Peripherals (KVM, KVM Switch) Tempest C	A.1.27	EDC+10 weeks	Pristina - Camp Film City	each	4	-	-
6.1.38	Rack Peripherals (KVM, KVM Switch) COTS	A.1.27	EDC+10 weeks	Pristina - Camp Film City	each	2	-	-
6.1.39	Rack UPS (Large, server rooms) Tempest C	A.1.28	EDC+10 weeks	Pristina - Camp Film City	each	12	-	-
6.1.40	Rack UPS (Large, server rooms) COTS	A.1.28	EDC+10 weeks	Pristina - Camp Film City	each	8	-	-
6.1.41	Rack UPS (Small, equipment rooms) Tempest C	A.1.29	EDC+10 weeks	Pristina - Camp Film City	each	24	-	-
6.1.42	Rack UPS (Small, equipment rooms) COTS	A.1.29	EDC+10 weeks	Pristina - Camp Film City	each	12	-	-
6.1.43	Patch cables (LC-LC) 5m	A.1.30	EDC+10 weeks	Pristina - Camp Film City	each	595m	-	-
6.1.44	A4 Printer Tempest C	A.1.33	EDC+10 weeks	Pristina - Camp Film City	each	7	-	-
6.1.45	A3 Printer Tempest C	A.1.34	EDC+10 weeks	Pristina - Camp Film City	each	35	-	-
6.1.46	A3 Printer COTS	A.1.32	EDC+10 weeks	Pristina - Camp Film City	each	40	-	-
6.1.47	A3 Printer Tempest B	A.1.34	EDC+10 weeks	Pristina - Camp Film City	each	1	-	-
6.1.48	A0 Plotter/Scanner Combi Device + Media Converters 1000 Base-SX Media	A.1.35	EDC+10 weeks	Pristina - Camp Film City	each	1	-	-
6.1.49	A0 Plotter + Media Converters 100 Base-SX Tempest C	A.1.36	EDC+10 weeks	Pristina - Camp Film City	each	1	-	-
6.1.50	Digital Sender Tempest C	A.1.37	EDC+10 weeks	Pristina - Camp Film City	each	17	-	-
6.1.51	Projector (Medium, 3000-5000 Lumens) COTS	A.1.39	EDC+10 weeks	Pristina - Camp Film City	each	15	-	-
6.1.52	External Media (GIS CW)	A.1.41	EDC+10 weeks	Pristina - Camp Film City	each	4	-	-
6.1.53	1Gb SFP Network Interface Card Tempest C	A.1.59	EDC+10 weeks	Pristina - Camp Film City	each	595	-	-
6.1.54	Laptop (Windows, including Tempest B)	A.1.46	EDC+10 weeks	Pristina - Camp Film City	each	37	-	-
6.1.55	Veeam Backup & Replication Enterprise PLUS for Vmware	A.1.50	EDC+10 weeks	Pristina - Camp Film City	each	9	-	-
6.1.56	SAFECOM Enterprise Server License (unlimited servers)	A.1.51	EDC+10 weeks	Pristina - Camp Film City	each	3	-	-
6.1.57	SAFECOM Software Maintenance & Support, 1 year	A.1.52	EDC+10 weeks	Pristina - Camp Film City	each	3	-	-
6.2	**KFOR Remotes (NU/MS/NS)**							
6.2.1	Router Small COTS	A.1.1.2	EDC + 26 weeks	Pristina - Camp Film City	each	6	-	-
6.2.2	Router License for IPSEC	A.1.1.7	EDC + 26 weeks	Pristina - Camp Film City	each	6	-	-
6.2.3	Router Small Tempest C	A.1.1.2	EDC + 26 weeks	Pristina - Camp Film City	each	11	-	-
6.2.4	Access Switch Small (UTP) COTS	A.1.3.4	EDC + 26 weeks	Pristina - Camp Film City	each	5	-	-
6.2.5	Access Switch Small (SFP) COTS	A.1.3.5	EDC + 26 weeks	Pristina - Camp Film City	each	1	-	-
6.2.6	Access Switch Large (SFP) Tempest C	A.1.3.2	EDC + 26 weeks	Pristina - Camp Film City	each	3	-	-
6.2.7	Access Switch Small (SFP) Tempest C	A.1.3.3	EDC + 26 weeks	Pristina - Camp Film City	each	9	-	-
6.2.8	Patch cables (LC-LC) 5m	A.1.30	EDC + 26 weeks	Pristina - Camp Film City	each	169m	-	-
6.2.9	SFP Modules (Access 1Gb short)	A.1.7.3	EDC + 26 weeks	Pristina - Camp Film City	each	169	-	-
6.2.10	Rack UPS (Small, equipment rooms) Tempest C	A.1.29	EDC + 26 weeks	Pristina - Camp Film City	each	14	-	-
6.3	**Commz (NU/NS)**							
6.3.1	Router Small COTS	A.1.1.2	EDC + 26 weeks	Thessaloniki - COMM-Z	each	1	-	-
6.3.2	Router License for IPSEC	A.1.1.7	EDC + 26 weeks	Thessaloniki - COMM-Z	each	1	-	-
6.3.3	Router Small Tempest C	A.1.1.2	EDC + 26 weeks	Thessaloniki - COMM-Z	each	1	-	-
6.3.4	Access Switch Small (UTP) COTS	A.1.3.5	EDC + 26 weeks	Thessaloniki - COMM-Z	each	1	-	-
6.3.5	Access Switch Small (SFP) Tempest C	A.1.3.3	EDC + 26 weeks	Thessaloniki - COMM-Z	each	1	-	-
6.3.6	SFP Modules (Access 1Gb short)	A.1.7.3	EDC + 26 weeks	Thessaloniki - COMM-Z	each	10	-	-
6.3.7	Rack UPS (Small, equipment rooms) Tempest C	A.1.29	EDC + 26 weeks	Thessaloniki - COMM-Z	each	2	-	-

6.3.8	Patch cables (LC-LC) 5m	A.1.30	EDC + 26 weeks	Thessaloniki - COMM-Z	each	10	-	-
6.3.9	Symantec Mail protection (license per mailbox)	A.1.49	EDC + 26 weeks	Thessaloniki - COMM-Z	each	40	-	-
6.3.10	SAFECOM Enterprise Server License (unlimited servers)	A.1.51	EDC + 26 weeks	Thessaloniki - COMM-Z	each	1	-	-
6.3.11	SAFECOM Software Maintenance & Support, 1 year	A.1.52	EDC + 26 weeks	Thessaloniki - COMM-Z	each	1	-	-
6.4	NHQ Skopje (NU)							
6.4.1	Router Small COTS	A.1.1.2	EDC + 26 weeks	Skopje -NLO	each	2	-	-
6.4.2	Router License for IPSEC	A.1.1.7	EDC + 26 weeks	Skopje -NLO	each	2	-	-
6.4.3	Access Switch (UTP) COTS	A.1.3.5	EDC + 26 weeks	Skopje -NLO	each	2	-	-
6.4.4	Virtual Host Server and storage (small) COTS	A.1.10	EDC + 26 weeks	Skopje -NLO	each	2	-	-
6.4.5	Physical Server (Domain Controller) COTS	A.1.13	EDC + 26 weeks	Skopje -NLO	each	1	-	-
6.4.6	Backup Servers (Small) COTS	A.1.15	EDC + 26 weeks	Skopje -NLO	each	1	-	-
6.4.7	Tape Library COTS	A.1.17	EDC + 26 weeks	Skopje -NLO	each	1	-	-
6.4.8	Tape Media COTS	A.1.18	EDC + 26 weeks	Skopje -NLO	each	1	-	-
6.4.9	Firewall (IEG-C & SPN +1 Year Support) COTS	A.1.20	EDC + 26 weeks	Skopje -NLO	each	1	-	-
6.4.10	Rack (incl. PDU, Fans)	A.1.26	EDC + 26 weeks	Skopje -NLO	each	1	-	-
6.4.11	Rack Peripherals (KVM, KVM Switch) COTS	A.1.27	EDC + 26 weeks	Skopje -NLO	each	1	-	-
6.4.12	Rack UPS (Large, server rooms) COTS	A.1.28	EDC + 26 weeks	Skopje -NLO	each	2	-	-
6.4.13	Rack UPS (Small, equipment rooms) COTS	A.1.29	EDC + 26 weeks	Skopje -NLO	each	2	-	-
6.4.14	Symantec Mail protection (license per mailbox)	A.1.49	EDC + 26 weeks	Skopje -NLO	each	40	-	-
6.4.15	Veeam Backup & Replication Enterprise PLUS for VMware	A.1.50	EDC + 26 weeks	Skopje -NLO	each	2	-	-
6.4.16	SAFECOM Enterprise Server License (unlimited servers)	A.1.51	EDC + 26 weeks	Skopje -NLO	each	1	-	-
6.4.17	SAFECOM Software Maintenance & Support, 1 year	A.1.52	EDC + 26 weeks	Skopje -NLO	each	1	-	-
6.5	MLO Belgrade (NU)							
6.5.1	Router Small COTS	A.1.1.2	EDC + 26 weeks	Belgrade - MLO	each	1	-	-
6.5.2	Router License for IPSEC	A.1.1.7	EDC + 26 weeks	Belgrade - MLO	each	1	-	-
6.5.3	Access Switch Small (UTP) COTS	A.1.3.5	EDC + 26 weeks	Belgrade - MLO	each	1	-	-
6.5.4	SFP Modules (Interconnect 10Gb, short)	A.1.7.5	EDC + 26 weeks	Belgrade - MLO	each	4	-	-
6.5.5	Virtual Host Server and storage (small) COTS	A.1.10	EDC + 26 weeks	Belgrade - MLO	each	2	-	-
6.5.6	Physical Server (Domain Controller) COTS	A.1.13	EDC + 26 weeks	Belgrade - MLO	each	1	-	-
6.5.7	Backup Servers (Small) COTS	A.1.15	EDC + 26 weeks	Belgrade - MLO	each	1	-	-
6.5.8	Rack (incl. PDU, Fans)	A.1.26	EDC + 26 weeks	Belgrade - MLO	each	1	-	-
6.5.9	Rack Peripherals (KVM, KVM Switch) COTS	A.1.27	EDC + 26 weeks	Belgrade - MLO	each	1	-	-
6.5.10	Rack UPS (Large, server rooms) COTS	A.1.28	EDC + 26 weeks	Belgrade - MLO	each	2	-	-
6.5.11	Rack UPS (Small, equipment rooms) COTS	A.1.29	EDC + 26 weeks	Belgrade - MLO	each	2	-	-
6.5.12	Symantec Mail protection (license per mailbox)	A.1.49	EDC + 26 weeks	Belgrade - MLO	each	40	-	-
6.5.13	Veeam Backup & Replication Enterprise PLUS for VMware	A.1.50	EDC + 26 weeks	Belgrade - MLO	each	2	-	-
6.5.14	SAFECOM Enterprise Server License (unlimited servers)	A.1.51	EDC + 26 weeks	Belgrade - MLO	each	1	-	-
6.5.15	SAFECOM Software Maintenance & Support, 1 year	A.1.52	EDC + 26 weeks	Belgrade - MLO	each	1	-	-
6.6	NHQSA HQ (NU/NS)							
6.6.1	Router Large COTS	A.1.1.1	EDC + 26 weeks	Sarajevo - Camp Butmir	each	2	-	-
6.6.2	Router License for IPSEC	A.1.1.7	EDC + 26 weeks	Sarajevo - Camp Butmir	each	2	-	-
6.6.3	Router License for Collaboration	A.1.1.8	EDC + 26 weeks	Sarajevo - Camp Butmir	each	2	-	-
6.6.4	Router Large PVDM module	A.1.1.3	EDC + 26 weeks	Sarajevo - Camp Butmir	each	1	-	-
6.6.5	Router Large E1 card	A.1.1.5	EDC + 26 weeks	Sarajevo - Camp Butmir	each	1	-	-
6.6.6	Router Small Tempest	A.1.1.2	EDC + 26 weeks	Sarajevo - Camp Butmir	each	1	-	-
6.6.7	Router Small PVDM module	A.1.1.4	EDC + 26 weeks	Sarajevo - Camp Butmir	each	1	-	-
6.6.8	Router License for SRST	A.1.1.9	EDC + 26 weeks	Sarajevo - Camp Butmir	each	350	-	-
6.6.9	Data Ceter Switch TOR (SFP) Tempest C	A.1.2.2	EDC + 26 weeks	Sarajevo - Camp Butmir	each	2	-	-
6.6.10	Data Ceter Switch TOR (SFP) COTS	A.1.2.2	EDC + 26 weeks	Sarajevo - Camp Butmir	each	2	-	-
6.6.11	Core Switch Tempest C	A.1.3.1	EDC + 26 weeks	Sarajevo - Camp Butmir	each	2	-	-
6.6.12	Core Switch COTS	A.1.3.1	EDC + 26 weeks	Sarajevo - Camp Butmir	each	2	-	-
6.6.13	Access Switch Large (SFP) Tempest C	A.1.3.2	EDC + 26 weeks	Sarajevo - Camp Butmir	each	4	-	-
6.6.14	Access Switch Large (SFP) COTS	A.1.3.2	EDC + 26 weeks	Sarajevo - Camp Butmir	each	1	-	-
6.6.15	Access Switch Large (PoE) COTS	A.1.3.6	EDC + 26 weeks	Sarajevo - Camp Butmir	each	23	-	-
6.6.16	Access Switch Small (SFP) Tempest C	A.1.3.3	EDC + 26 weeks	Sarajevo - Camp Butmir	each	2	-	-
6.6.17	Access Switch Small (SFP) COTS	A.1.3.3	EDC + 26 weeks	Sarajevo - Camp Butmir	each	4	-	-
6.6.18	Access Switch Small (PoE) COTS	A.1.3.7	EDC + 26 weeks	Sarajevo - Camp Butmir	each	6	-	-
6.6.19	SFP Modules (Access 100Mb short)	A.1.7.2	EDC + 26 weeks	Sarajevo - Camp Butmir	each	96	-	-
6.6.20	SFP Modules (Access 1Gb short)	A.1.7.3	EDC + 26 weeks	Sarajevo - Camp Butmir	each	150	-	-
6.6.21	SFP Modules (Interconnect 10Gb, short)	A.1.7.5	EDC + 26 weeks	Sarajevo - Camp Butmir	each	16	-	-
6.6.22	SFP Modules (Interconnect 10Gb, medium)	A.1.7.6	EDC + 26 weeks	Sarajevo - Camp Butmir	each	2	-	-
6.6.23	SFP Modules (Interconnect, 10Gb long)	A.1.7.7	EDC + 26 weeks	Sarajevo - Camp Butmir	each	72	-	-
6.6.24	Analogue Voice gateway (large) COTS	A.1.4.1	EDC + 26 weeks	Sarajevo - Camp Butmir	each	4	-	-
6.6.25	Analogue Voice gateway (medium) COTS	A.1.4.2	EDC + 26 weeks	Sarajevo - Camp Butmir	each	2	-	-
6.6.26	NU VOIP phone (NATO Users only)	A.1.5	EDC + 26 weeks	Sarajevo - Camp Butmir	each	127	-	-
6.6.27	NU Analogue phone (NATO Users only)	A.1.6	EDC + 26 weeks	Sarajevo - Camp Butmir	each	29	-	-
6.6.28	Virtual Host Server and storage (Medium) COTS	A.1.9	EDC + 26 weeks	Sarajevo - Camp Butmir	each	4	-	-
6.6.29	Virtual Host Server and storage (small) Tempest C	A.1.10	EDC + 26 weeks	Sarajevo - Camp Butmir	each	4	-	-
6.6.30	Virtual Host witness server NS Tempest	A.1.12	EDC + 26 weeks	Sarajevo - Camp Butmir	each	1	-	-
6.6.31	Virtual Host witness server NU COTS	A.1.12	EDC + 26 weeks	Sarajevo - Camp Butmir	each	1	-	-
6.6.32	Patch cables (LC-LC) 5m	A.1.30	EDC + 26 weeks	Sarajevo - Camp Butmir	each	1	-	-

CLIN	Description	SOW Reference	Required Completion Date	Delivery Destination	Unit of measure	Quantity	Unit Price	Total Firm Fixed Price	Optional Comments
6.6.33	Physical Server (Domain Controller) Tempest C	A.1.13	EDC + 26 weeks	Sarajevo - Camp Butmir	each	1	-	-	
6.6.34	Physical Server (Domain Controller) COTS	A.1.13	EDC + 26 weeks	Sarajevo - Camp Butmir	each	1	-	-	
6.6.35	Backup Servers (Large) COTS	A.1.14	EDC + 26 weeks	Sarajevo - Camp Butmir	each	1	-	-	
6.6.36	Backup Servers (Small) Tempest C	A.1.15	EDC + 26 weeks	Sarajevo - Camp Butmir	each	2	-	-	
6.6.37	GEO Datastore (10 TB, low performance) Tempest C	A.1.16	EDC + 26 weeks	Sarajevo - Camp Butmir	each	2	-	-	
6.6.38	GEO Datastore (10 TB, low performance) COTS	A.1.16	EDC + 26 weeks	Sarajevo - Camp Butmir	each	2	-	-	
6.6.39	Tape Library Tempest C	A.1.17	EDC + 26 weeks	Sarajevo - Camp Butmir	each	2	-	-	
6.6.40	Tape Library COTS	A.1.17	EDC + 26 weeks	Sarajevo - Camp Butmir	each	1	-	-	
6.6.41	Tape Media TEMPEST C	A.1.18	EDC + 26 weeks	Sarajevo - Camp Butmir	each	2	-	-	
6.6.42	Tape Media COTS	A.1.18	EDC + 26 weeks	Sarajevo - Camp Butmir	each	1	-	-	
6.6.43	Firewall (IEG-C & SPN +1 Year Support) Tempest C	A.1.20	EDC + 26 weeks	Sarajevo - Camp Butmir	each	2	-	-	
6.6.44	Firewall (IEG-C & SPN +1 Year Support) COTS	A.1.20	EDC + 26 weeks	Sarajevo - Camp Butmir	each	2	-	-	
6.6.45	NIPS License COTS	A.1.22	EDC + 26 weeks	Sarajevo - Camp Butmir	each	4	-	-	
6.6.46	Proxy device	A.1.25	EDC + 26 weeks	Sarajevo - Camp Butmir	each	1	-	-	
6.6.47	Rack (incl. PDU, Fans)	A.1.26	EDC + 26 weeks	Sarajevo - Camp Butmir	each	4	-	-	
6.6.48	Rack Peripherals (KVM, KVM Switch) Tempest C	A.1.27	EDC + 26 weeks	Sarajevo - Camp Butmir	each	2	-	-	
6.6.49	Rack Peripherals (KVM, KVM Switch) COTS	A.1.27	EDC + 26 weeks	Sarajevo - Camp Butmir	each	2	-	-	
6.6.50	Rack UPS (Large, server rooms) Tempest C	A.1.28	EDC + 26 weeks	Sarajevo - Camp Butmir	each	4	-	-	
6.6.51	Rack UPS (Large, server rooms) COTS	A.1.28	EDC + 26 weeks	Sarajevo - Camp Butmir	each	4	-	-	
6.6.52	Rack UPS (Small, equipment rooms) Tempest C	A.1.29	EDC + 26 weeks	Sarajevo - Camp Butmir	each	4	-	-	
6.6.53	Rack UPS (Small, equipment rooms) COTS	A.1.29	EDC + 26 weeks	Sarajevo - Camp Butmir	each	6	-	-	
6.6.54	Patch cables (LC-LC) 5m	A.1.30	EDC + 26 weeks	Sarajevo - Camp Butmir	each	70	-	-	
6.6.55	A4 Printers Tempest C	A.1.33	EDC + 26 weeks	Sarajevo - Camp Butmir	each	7	-	-	
6.6.56	A3 Printers Tempest C	A.1.34	EDC + 26 weeks	Sarajevo - Camp Butmir	each	3	-	-	
6.6.57	Digital Sender Tempest C	A.1.37	EDC + 26 weeks	Sarajevo - Camp Butmir	each	6	-	-	
6.6.58	Projectors (large, 5000 Lumens) Tempest C	A.1.38	EDC + 26 weeks	Sarajevo - Camp Butmir	each	3	-	-	
6.6.59	Projectors (Medium, 3000-5000 Lumens) Tempest C	A.1.39	EDC + 26 weeks	Sarajevo - Camp Butmir	each	3	-	-	
6.6.60	Projectors (small, portable) Tempest C	A.1.40	EDC + 26 weeks	Sarajevo - Camp Butmir	each	12	-	-	
6.6.61	1Gb SFP Network Interface Card Tempest C	A.1.59	EDC + 26 weeks	Sarajevo - Camp Butmir	each	150	-	-	
6.6.62	Laptop (MacBook)	A.1.48	EDC + 26 weeks	Sarajevo - Camp Butmir	each	2	-	-	
6.6.63	Laptop (Windows)	A.1.46	EDC + 26 weeks	Sarajevo - Camp Butmir	each	24	-	-	
6.6.64	Symantec Mail protection (license per mailbox)	A.1.49	EDC + 26 weeks	Sarajevo - Camp Butmir	each	202	-	-	
6.6.65	Veeam Backup & Replication Enterprise PLUS for VMware	A.1.50	EDC + 26 weeks	Sarajevo - Camp Butmir	each	6	-	-	
6.6.66	SAFECOM Enterprise Server License (unlimited servers)	A.1.51	EDC + 26 weeks	Sarajevo - Camp Butmir	each	2	-	-	
6.6.67	SAFECOM Software Maintenance & Support, 1 year	A.1.52	EDC + 26 weeks	Sarajevo - Camp Butmir	each	2	-	-	
6.6.68	McAfee DLP License	A.1.53	EDC + 26 weeks	Sarajevo - Camp Butmir	each	435	-	-	
6.7	**Sarajevo MOD BLD1 (NU)**								
6.7.1	Router Small COTS	A.1.1.2	EDC + 26 weeks	Sarajevo - MOD Bistrik	each	2	-	-	
6.7.2	Router Small PVDM module	A.1.1.4	EDC + 26 weeks	Sarajevo - MOD Bistrik	each	1	-	-	
6.7.3	Router Small E1 card	A.1.1.6	EDC + 26 weeks	Sarajevo - MOD Bistrik	each	1	-	-	
6.7.4	Router License for IPSEC	A.1.1.7	EDC + 26 weeks	Sarajevo - MOD Bistrik	each	2	-	-	
6.7.5	Router License for Collaboration	A.1.1.8	EDC + 26 weeks	Sarajevo - MOD Bistrik	each	2	-	-	
6.7.6	Router License for SRST	A.1.1.9	EDC + 26 weeks	Sarajevo - MOD Bistrik	each	50	-	-	
6.7.7	Access Switch Large (PoE) COTS	A.1.3.6	EDC + 26 weeks	Sarajevo - MOD Bistrik	each	3	-	-	
6.7.8	Analogue Voice gateway (medium) COTS	A.1.4.2	EDC + 26 weeks	Sarajevo - MOD Bistrik	each	1	-	-	
6.7.9	Virtual Host Server and storage (small) COTS	A.1.10	EDC + 26 weeks	Sarajevo - MOD Bistrik	each	2	-	-	
6.7.10	Backup Servers (Large) COTS	A.1.14	EDC + 26 weeks	Sarajevo - MOD Bistrik	each	1	-	-	
6.7.11	GEO Datastore (10 TB, low performance) COTS	A.1.16	EDC + 26 weeks	Sarajevo - MOD Bistrik	each	1	-	-	
6.7.12	Rack (incl. PDU, Fans)	A.1.26	EDC + 26 weeks	Sarajevo - MOD Bistrik	each	1	-	-	
6.7.13	Rack Peripherals (KVM, KVM Switch) COTS	A.1.27	EDC + 26 weeks	Sarajevo - MOD Bistrik	each	1	-	-	
6.7.14	Rack UPS (Large, server rooms) COTS	A.1.28	EDC + 26 weeks	Sarajevo - MOD Bistrik	each	2	-	-	
6.7.15	Rack UPS (Small, equipment rooms) COTS	A.1.29	EDC + 26 weeks	Sarajevo - MOD Bistrik	each	2	-	-	
6.7.16	Veeam Backup & Replication Enterprise PLUS for Vmware	A.1.50	EDC + 26 weeks	Sarajevo - MOD Bistrik	each	2	-	-	
6.7.17	McAfee DLP License	A.1.53	EDC + 26 weeks	Sarajevo - MOD Bistrik	each	20	-	-	
TOTAL PRICE CLIN 6								-	
7	**Engineering Support**								
7.1	Engineering Support	SOW Section 4	All project lifecyle	All approved locations	Lot	1	-	-	Please provide Engineering support breakdown into the Labour tab accordingly to the proposed man days under CLIN 7.1.
7.2	Engineering Support EUFOR	SOW Section 4	All project lifecyle	All approved locations	Lot	1	-	-	Please provide Engineering support breakdown into the Labour tab accordingly to the proposed man days under CLIN 7.2.
TOTAL PRICE CLIN 7								-	
Total Firm Fixed Price- Base Contract								-	

			OPTIONAL CLINS - Evaluated						
CLIN	Description	SOW Reference	Required Completion Date	Delivery Destination	Unit of measure	Quantity	Unit Price	Total Firm Fixed Price	Optional Comments (Mandatory for zero costs lines)
							Declare Currency =>		
8	**Project Management Activities**								

8.1	Project Management EUFOR	SOW Section 4.1	All project lifecycle	NCIA	Lot	1	-	-	
8.2	PMP EUFOR	SOW Section 4.1	EDC + 20 weeks	NCIA	Lot	1	-	-	
TOTAL PRICE CLIN 8								-	
9	**Achieve PSA**								
9.1	SDS EUFOR HQ, EUSG SHAPE, EUCE Naples	SOW Section 4	EDC + 20 weeks	NCIA	Lot	1	-	-	
9.2	SIDP EUFOR HQ, EUSG SHAPE, EUCE Naples	SOW Section 4	EDC + 20 weeks	NCIA	Lot	1	-	-	
9.3	Achieve PSA in EUFOR HQ	SOW Section 3 & 4	EDC + 39 weeks	NCIA and Sarajevo - Camp Butmir	Lot	1	-	-	
9.4	Achieve PSA EUSG SHAPE	SOW Section 3 & 4	EDC + 57 weeks	NCIA and SHAPE - EUSG	Lot	1	-	-	
9.5	Achieve PSA EUCE Naples	SOW Section 3 & 4	EDC + 57 weeks	NCIA and Lago Patria - EUCE	Lot	1	-	-	
9.6	Achieve PSA CUR 1911	SOW Section 3 & 4	EDC + 22 weeks	NCIA and Pristina - Camp Film City	Lot	1	-	-	
TOTAL PRICE CLIN 9								-	
10	**System Acceptance (FSA)**								
10.1	Test Documentation EUFOR HQ, EUSG SHAPE, EUCE Naples	SOW Section 6	EDC +26 weeks	NCIA	Lot	1	-	-	
10.2	Systems Acceptance(FSA) EUFOR HQ, EUSG SHAPE, EUCE Naples	SOW Section 3 & 4	EDC + 64 weeks	NCIA	Lot	1	-	-	
TOTAL PRICE CLIN 10								-	
11	**ILS**								
11.1	**EUFOR HQ, EUSG SHAPE, EUCE Naples**								
11.1.1	Integrated Logistics Support Plan EUFOR HQ, EUSG SHAPE, EUCE Naples	SOW Section 5	EDC + 20 weeks	NCIA	Lot	1	-	-	
11.1.2	ILS, Support&Maintenance concept, LSA&RMA data, SWDL; for EUFOR HQ, EUSG SHAPE, EUCE Naples	SOW Section 5	EDC + 20 weeks	NCIA	Lot	1	-	-	
11.1.3	Supply Support ,Technical Documentation (incl. Manuals, ABDs); for EUFOR HQ, EUSG SHAPE, EUCE Naples	SOW Section 5	EDC+39; EDC+57; weeks	NCIA and Delivery Destination	Lot	1	-	-	
11.1.4	Packaging, Handling, Storage and Transportation; for EUFOR HQ, EUSG SHAPE, EUCE Naples	SOW Section 5	EDC + 26 weeks	Delivery Destination	Lot	1	-	-	
11.1.5	Configuration Management (incl. CMDB, baselines and PCAs) for EUFOR HQ, EUSG SHAPE, EUCE Naples	SOW Section 8	EDC+39; EDC+57; weeks	NCIA	Lot	1	-	-	
11.1.6	Warranty PSA to FSA +12 month; for EUFOR HQ, EUSG SHAPE, EUCE Naples	SOW Section 5	FSA + 12 month	NCIA	Lot	1	-	-	
11.2	**CUR 1911**								
11.2.1	Integrated Logistics Support Plan CUR 1911	SOW Section 5	EDC + 8 weeks	NCIA	Lot	1	-	-	
11.2.2	ILS, Support&Maintenance concept, LSA&RMA data, SWDL; for CUR 1911	SOW Section 5	EDC + 8 weeks	NCIA	Lot	1	-	-	
11.2.3	Supply Support ,Technical Documentation (incl. Manuals, ABDs) for CUR 1911	SOW Section 5	EDC+22weeks	NCIA and Delivery Destination	Lot	1	-	-	
11.2.4	Packaging, Handling, Storage and Transportation for CUR 1911	SOW Section 5	EDC + 10 weeks	Delivery Destination	Lot	1	-	-	
11.2.5	Configuration Management (incl. CMDB, baselines and PCAs) for CUR 1911	SOW Section 8	EDC+22weeks	NCIA	Lot	1	-	-	
11.2.6	Warranty PSA to FSA +12 month; for CUR 1911	SOW Section 5	FSA + 12 month	NCIA	Lot	1	-	-	
TOTAL PRICE CLIN 11								-	
12	**Procurment HW/SW**								
12.1	**EUFOR MS HQ**								
12.1.1	Router Small Tempest C	A.1.1.2	EDC + 26 weeks	Sarajevo - Camp Butmir	each	1	-	-	
12.1.2	Data Center Switch (SFP) Tempest C	A.1.2.1	EDC + 26 weeks	Sarajevo - Camp Butmir	each	2	-	-	
12.1.3	Data Center TOR (SFP) Tempest C	A.1.2.2	EDC + 10 weeks	Sarajevo - Camp Butmir	each	4	-	-	
12.1.4	Core Switch Tempest C	A.1.3.1	EDC + 26 weeks	Sarajevo - Camp Butmir	each	2	-	-	
12.1.5	Access Switch Large (SFP) Tempest C	A.1.3.2	EDC + 26 weeks	Sarajevo - Camp Butmir	each	9	-	-	
12.1.6	Access Switch Small (SFP) Tempest C	A.1.3.3	EDC + 26 weeks	Sarajevo - Camp Butmir	each	8	-	-	
12.1.7	SFP Modules (Access 100Mb short)	A.1.7.2	EDC + 26 weeks	Sarajevo - Camp Butmir	each	60	-	-	
12.1.8	SFP Modules (Access 1Gb short)	A.1.7.3	EDC + 26 weeks	Sarajevo - Camp Butmir	each	216	-	-	
12.1.9	SFP Modules (Interconnect 10Gb, short)	A.1.7.5	EDC + 26 weeks	Sarajevo - Camp Butmir	each	4	-	-	
12.1.1	SFP Modules (Interconnect 10Gb, medium)	A.1.7.6	EDC + 26 weeks	Sarajevo - Camp Butmir	each	2	-	-	
12.1.1	SFP Modules (Interconnect, 10Gb long)	A.1.7.7	EDC + 26 weeks	Sarajevo - Camp Butmir	each	42	-	-	
12.1.1	Virtual Host Server and storage (Medium) Tempest C	A.1.9	EDC + 26 weeks	Sarajevo - Camp Butmir	each	6	-	-	
12.1.1	NU VOIP phone (EUFOR Users only)	A.1.5	EDC + 26 weeks	Sarajevo - Camp Butmir	each	254	-	-	
12.1.1	NU Analogue phone (EUFOR Users only)	A.1.6	EDC + 26 weeks	Sarajevo - Camp Butmir	each	287	-	-	
12.1.1	Virtual Host witness server NS Tempest C	A.1.12	EDC + 26 weeks	Sarajevo - Camp Butmir	each	1	-	-	
12.1.1	Physical Server (Domain Controller) Tempest C	A.1.13	EDC + 26 weeks	Sarajevo - Camp Butmir	each	1	-	-	
12.1.1	Backup Servers (Small) Tempest C	A.1.15	EDC + 26 weeks	Sarajevo - Camp Butmir	each	2	-	-	
12.1.1	Tape Library Tempest C	A.1.17	EDC + 26 weeks	Sarajevo - Camp Butmir	each	2	-	-	
12.1.1	Tape Media	A.1.18	EDC + 26 weeks	Sarajevo - Camp Butmir	each	2	-	-	
12.1.2	Virtual Loadbalancers	A.1.19	EDC + 26 weeks	Sarajevo - Camp Butmir	each	2	-	-	
12.1.2	Firewalls (IEG-C & SPN +1 Year Support)	A.1.20	EDC + 26 weeks	Sarajevo - Camp Butmir	each	2	-	-	
12.1.2	Mailguards + 1 Year Support	A.1.21	EDC + 26 weeks	Sarajevo - Camp Butmir	each	2	-	-	
12.1.2	NIPS License COTS	A.1.22	EDC + 26 weeks	Sarajevo - Camp Butmir	each	2	-	-	
12.1.2	Rack (incl. PDU, Fans)	A.1.26	EDC + 26 weeks	Sarajevo - Camp Butmir	each	4	-	-	
12.1.2	Rack Peripherals (KVM, KVM Switch) Sugestion: Tempest C	A.1.27	EDC + 26 weeks	Sarajevo - Camp Butmir	each	2	-	-	
12.1.2	Rack UPS (Large, server rooms) Tempest C	A.1.28	EDC + 26 weeks	Sarajevo - Camp Butmir	each	8	-	-	
12.1.2	Rack UPS (Small, equipment rooms) Tempest C	A.1.29	EDC + 26 weeks	Sarajevo - Camp Butmir	each	8	-	-	
12.1.2	Patch cables (LC-LC) 5m	A.1.30	EDC + 26 weeks	Sarajevo - Camp Butmir	each	276	-	-	
12.1.2	1Gb SFP Network Interface Card	A.1.59	EDC + 26 weeks	Sarajevo - Camp Butmir	each	216	-	-	
12.1.3	Symantec Mail protection (license per mailbox)	A.1.49	EDC + 26 weeks	Sarajevo - Camp Butmir	each	686	-	-	

CLIN	Description	SOW Reference	Required Completion Date	Delivery Destination	Unit of measure	Quantity	Unit Price	Total Firm Fixed Price	
12.1.3	Veeam Backup & Replication Enterprise PLUS for VMware	A.1.50	EDC + 26 weeks	Sarajevo - Camp Butmir	each	1	-	-	
12.1.3	SAFECOM Enterprise Server License (unlimited servers)	A.1.51	EDC + 26 weeks	Sarajevo - Camp Butmir	each	1	-	-	
12.1.3	SAFECOM Software Maintenance & Support, 1 year	A.1.52	EDC + 26 weeks	Sarajevo - Camp Butmir	each	1	-	-	
12.1.3	McAfee DLP License	A.1.53	EDC + 26 weeks	Sarajevo - Camp Butmir	each	220	-	-	
12.2	**EUSG MS SHAPE**								
12.2.1	Router Small Tempest C	A.1.1.2	EDC + 26 weeks	SHAPE - EUSG	each	1	-	-	
12.2.2	Data Center switch TOR (SFP) TEMPEST C	A.1.2.2	EDC + 26 weeks	SHAPE - EUSG	each	1	-	-	
12.2.3	Access Switch Small (SFP) Tempest C	A.1.3.3	EDC + 26 weeks	SHAPE - EUSG	each	1	-	-	
12.2.4	SFP Modules (Access 1Gb short)	A.1.7.3	EDC + 26 weeks	SHAPE - EUSG	each	24	-	-	
12.2.5	Virtual Host Server and storage (small) Tempest C	A.1.10	EDC + 26 weeks	SHAPE - EUSG	each	2	-	-	
12.2.6	Physical Server (Domain Controller) Tempest C	A.1.13	EDC + 26 weeks	SHAPE - EUSG	each	1	-	-	
12.2.7	Backup Servers (Small) Tempest C	A.1.15	EDC + 26 weeks	SHAPE - EUSG	each	1	-	-	
12.2.8	Patch cables (LC-LC) 5m	A.1.30	EDC + 26 weeks	SHAPE - EUSG	each	24	-	-	
12.2.9	Symantec Mail protection (license per mailbox)	A.1.49	EDC + 26 weeks	SHAPE - EUSG	each	20	-	-	
12.2.1	Veeam Backup & Replication Enterprise PLUS for VMware	A.1.50	EDC + 26 weeks	SHAPE - EUSG	each	2	-	-	
12.2.1	McAfee DLP License	A.1.53	EDC + 26 weeks	SHAPE - EUSG	each	20	-	-	
12.2.1	1Gb SFP Network Interface Card Tempest C	A.1.59	EDC + 26 weeks	SHAPE - EUSG	each	24	-	-	
12.3	**EUCE MS Naples**								
12.3.1	Router Small Tempest C	A.1.1.2	EDC + 26 weeks	Lago Patria - EUCE	each	1	-	-	
12.3.2	Data Center switch TOR (SFP) TEMPEST C	A.1.2.2	EDC + 26 weeks	Lago Patria - EUCE	each	1	-	-	
12.3.3	Access Switch Small (SFP) Tempest C	A.1.3.3	EDC + 26 weeks	Lago Patria - EUCE	each	1	-	-	
12.3.4	SFP Modules (Access 1Gb short)	A.1.7.3	EDC + 26 weeks	Lago Patria - EUCE	each	14	-	-	
12.3.5	Virtual Host Server and storage (small) Tempest C	A.1.10	EDC + 26 weeks	Lago Patria - EUCE	each	2	-	-	
12.3.6	Physical Server (Domain Controller) Tempest C	A.1.13	EDC + 26 weeks	Lago Patria - EUCE	each	1	-	-	
12.3.7	Backup Servers (Small) Tempest C	A.1.15	EDC + 26 weeks	Lago Patria - EUCE	each	1	-	-	
12.3.8	Patch cables (LC-LC) 5m	A.1.30	EDC + 26 weeks	Lago Patria - EUCE	each	14	-	-	
12.3.9	Symantec Mail protection (license per mailbox)	A.1.49	EDC + 26 weeks	Lago Patria - EUCE	each	18	-	-	
12.3.1	Veeam Backup & Replication Enterprise PLUS for VMware	A.1.50	EDC + 26 weeks	Lago Patria - EUCE	each	2	-	-	
12.3.1	McAfee DLP License	A.1.53	EDC + 26 weeks	Lago Patria - EUCE	each	20	-	-	
12.3.1	1Gb SFP Network Interface Card Tempest C	A.1.59	EDC + 26 weeks	Lago Patria - EUCE	each	24	-	-	
12.4	**CUR 1911 (MS)**								
12.4.1	Data Center Switch (SFP) Tempest C	A.1.2.1	EDC + 10 weeks	Pristina - Camp Film City	each	2	-	-	
12.4.2	Data Center TOR (SFP) Tempest C	A.1.2.2	EDC + 10 weeks	Pristina - Camp Film City	each	4	-	-	
12.4.3	SFP Modules (Interconnect, 10Gb , short)	A.1.7.5	EDC + 10 weeks	Pristina - Camp Film City	each	4	-	-	
12.4.4	SFP Modules (Interconnect, 10Gb , medium)	A.1.7.6	EDC + 10 weeks	Pristina - Camp Film City	each	4	-	-	
12.4.5	Virtual Host Server and storage (Large) Tempest C	A.1.8	EDC + 10 weeks	Pristina - Camp Film City	each	6	-	-	
12.4.6	Virtual Host witness server NS Tempest C	A.1.12	EDC + 10 weeks	Pristina - Camp Film City	each	1	-	-	
12.4.7	Backup Servers (Large) Tempest C	A.1.14	EDC + 10 weeks	Pristina - Camp Film City	each	1	-	-	
12.4.8	Tape Library Tempest C	A.1.17	EDC + 10 weeks	Pristina - Camp Film City	each	1	-	-	
12.4.9	Tape Media Tempest C	A.1.18	EDC + 10 weeks	Pristina - Camp Film City	each	1	-	-	
12.4.1	Virtual Loadbalancers	A.1.19	EDC + 10 weeks	Pristina - Camp Film City	each	2	-	-	
12.4.1	Firewalls (IEG-C & SPN +1 Year Support) Tempest C	A.1.20	EDC + 10 weeks	Pristina - Camp Film City	each	2	-	-	
12.4.1	Rack (incl. PDU, Fans)	A.1.26	EDC + 10 weeks	Pristina - Camp Film City	each	4	-	-	
12.4.1	Rack Peripherals (KVM, KVM Switch) Sugestion: Tempest C	A.1.27	EDC + 10 weeks	Pristina - Camp Film City	each	2	-	-	
12.4.1	Rack UPS (Large, server rooms) Tempest C	A.1.28	EDC + 10 weeks	Pristina - Camp Film City	each	8	-	-	
12.4.1	Veeam Backup & Replication Enterprise PLUS for VMware	A.1.50	EDC + 10 weeks	Pristina - Camp Film City	each	6	-	-	
TOTAL PRICE CLIN 12								-	
Total Firm Fixed Price- Evaluated Options								-	

OPTIONAL CLINS - Non Evaluated									
CLIN	**Description**	**SOW Reference**	**Required Completion Date**	**Delivery Destination**	**Unit of measure**	**Quantity**	**Unit Price**	**Total Firm Fixed Price**	**Optional Comments (Mandatory for zero costs lines)**
							Declare Currency =>		
13	**CUR 1904**								
13.1	Virtual Host Server and storage (Large) Tempest C	A.1.8	SOW Section 3 MS 3	Pristina - Camp Film City	each	1	-	-	
13.2	Virtual Host Server and storage (Medium) TempestC	A.1.9	SOW Section 3 MS 3	Pristina - Camp Film City	each	1	-	-	
13.3	Virtual Host Server and storage (Medium) COTS	A.1.9	SOW Section 3 MS 3	Pristina - Camp Film City	each	1	-	-	
13.4	Update Project documentation to reflect CUR 1904 scope and project	SOW Section 1 and 4	SOW Section 3 MS 2	Pristina - Camp Film City	Lot	1	-	-	
13.5	Design, Instalation, PSA, FSA activities merged with overall scope	SOW Section 1 and 4	SOW Section 3 aplicable	Pristina - Camp Film City	Lot	1	-	-	
TOTAL PRICE CLIN 13								-	
14	**CUR 2025**								
14.1	Iphone 11 Pro Max	A.1.54	SOW Section 3 MS 3.1	Sarajevo - Camp Butmir	Each	11	-	-	
14.2	Ipad Pro 12.9 inch	A.1.55	SOW Section 3 MS 3.1	Sarajevo - Camp Butmir	Each	5	-	-	
14.3	NU VTC System	A.1.56	SOW Section 3 MS 3.1	Sarajevo - Camp Butmir	Each	2	-	-	
14.4	NS VTC System – "small" room	A.1.57	SOW Section 3 MS 3.1	Sarajevo - Camp Butmir	Each	2	-	-	
14.5	NS VTC System – "large" room	A.1.58	SOW Section 3 MS 3.1	Sarajevo - Camp Butmir	Each	3	-	-	
14.6	Update Project documentation to reflect CUR 2025 scope and project	SOW Section 1 and 4	SOW Section 3 MS 2.1	Sarajevo - Camp Butmir	Lot	1	-	-	
14.7	Design, Instalation, PSA, FSA activities activities merged wiith overall scope	SOW Section 1 and 4	SOW Section 3 aplicable	Sarajevo - Camp Butmir	Lot	1	-	-	
TOTAL PRICE CLIN 14								-	

| Total Firm Fixed Price- Non-Evaluated Options | - | |

CLIN	Labour Category	Currency	Man-Days 2020	Man-Days 2021	Man-Days 2022	Man-Days 2023	Lab-rate 2020	Lab-rate 2021	Lab-rate 2022	Lab-rate 2023	Extended cost	Expat Allowance (ONLY if applicable)	Profit	Fully burdened cost	Subcontracted/ Name of Subcontractor
Example. CLIN 1.1.1	Systems Engineer	Euro (EUR)	25	20	15	10	50.00	51.00	52.00	53.00	3,580.00		358.00	3,938.00	No
1.1	Insert Labour category name here										-	-	0.00	0.00	
1.2	Insert Labour category name here										-	-	0.00	0.00	
1.3	Insert Labour category name here										-	-	0.00	0.00	
2.1	Insert Labour category name here										-	-	0.00	0.00	
2.2	Insert Labour category name here										-	-	0.00	0.00	
2.3	Insert Labour category name here										-	-	0.00	0.00	
2.4	Insert Labour category name here										-	-	0.00	0.00	
2.5	Insert Labour category name here										-	-	0.00	0.00	
2.6	Insert Labour category name here										-	-	0.00	0.00	
2.7	Insert Labour category name here										-	-	0.00	0.00	
3.1	Insert Labour category name here										-	-	0.00	0.00	
3.2	Insert Labour category name here										-	-	0.00	0.00	
3.3	Insert Labour category name here										-	-	0.00	0.00	
3.4	Insert Labour category name here										-	-	0.00	0.00	
3.5	Insert Labour category name here										-	-	0.00	0.00	
3.6	Insert Labour category name here										-	-	0.00	0.00	
3.7	Insert Labour category name here										-	-	0.00	0.00	
3.8	Insert Labour category name here										-	-	0.00	0.00	
3.9	Insert Labour category name here										-	-	0.00	0.00	
3.10	Insert Labour category name here										-	-	0.00	0.00	
3.11	Insert Labour category name here										-	-	0.00	0.00	
4.1	Insert Labour category name here										-	-	0.00	0.00	
4.2	Insert Labour category name here										-	-	0.00	0.00	
4.3	Insert Labour category name here										-	-	0.00	0.00	
4.4	Insert Labour category name here										-	-	0.00	0.00	
5.1	Insert Labour category name here										-	-	0.00	0.00	
5.2	Insert Labour category name here										-	-	0.00	0.00	
5.3	Insert Labour category name here										-	-	0.00	0.00	
5.4	Insert Labour category name here										-	-	0.00	0.00	
5.5	Insert Labour category name here										-	-	0.00	0.00	
5.6	Insert Labour category name here										-	-	0.00	0.00	
5.7	Insert Labour category name here										-	-	0.00	0.00	
5.8	Insert Labour category name here										-	-	0.00	0.00	
5.9	Insert Labour category name here										-	-	0.00	0.00	
5.10	Insert Labour category name here										-	-	0.00	0.00	
5.11	Insert Labour category name here										-	-	0.00	0.00	
5.12	Insert Labour category name here										-	-	0.00	0.00	
5.13	Insert Labour category name here										-	-	0.00	0.00	
6.1	Insert Labour category name here										-	-	0.00	0.00	
6.2	Insert Labour category name here										-	-	0.00	0.00	
6.3	Insert Labour category name here										-	-	0.00	0.00	
6.4	Insert Labour category name here										-	-	0.00	0.00	
6.5	Insert Labour category name here										-	-	0.00	0.00	
6.6	Insert Labour category name here										-	-	0.00	0.00	
6.7	Insert Labour category name here										-	-	0.00	0.00	
7.1	Insert Labour category name here										-	-	0.00	0.00	
7.1	Insert Labour category name here										-	-	0.00	0.00	
7.1	Insert Labour category name here										-	-	0.00	0.00	
7.1	Insert Labour category name here										-	-	0.00	0.00	
7.1	Insert Labour category name here										-	-	0.00	0.00	
7.1	Insert Labour category name here										-	-	0.00	0.00	
7.1	Insert Labour category name here										-	-	0.00	0.00	
7.1	Insert Labour category name here										-	-	0.00	0.00	
7.2	Insert Labour category name here										-	-	0.00	0.00	
7.2	Insert Labour category name here										-	-	0.00	0.00	
7.2	Insert Labour category name here										-	-	0.00	0.00	
7.2	Insert Labour category name here										-	-	0.00	0.00	
7.2	Insert Labour category name here										-	-	0.00	0.00	
7.2	Insert Labour category name here										-	-	0.00	0.00	

7.2	Insert Labour category name here	-	-	0.00	0.00
7.2	Insert Labour category name here	-	-	0.00	0.00
8.1	Insert Labour category name here	-	-	0.00	0.00
8.2	Insert Labour category name here	-	-	0.00	0.00
9.1	Insert Labour category name here	-	-	0.00	0.00
9.2	Insert Labour category name here	-	-	0.00	0.00
9.3	Insert Labour category name here	-	-	0.00	0.00
9.4	Insert Labour category name here	-	-	0.00	0.00
9.5	Insert Labour category name here	-	-	0.00	0.00
9.6	Insert Labour category name here	-	-	0.00	0.00
10.1	Insert Labour category name here	-	-	0.00	0.00
10.2	Insert Labour category name here	-	-	0.00	0.00
11.1.1	Insert Labour category name here	-	-	0.00	0.00
11.1.2	Insert Labour category name here	-	-	0.00	0.00
11.1.3	Insert Labour category name here	-	-	0.00	0.00
11.1.4	Insert Labour category name here	-	-	0.00	0.00
11.1.5	Insert Labour category name here	-	-	0.00	0.00
11.1.6	Insert Labour category name here	-	-	0.00	0.00
11.2.1	Insert Labour category name here	-	-	0.00	0.00
11.2.2	Insert Labour category name here	-	-	0.00	0.00
11.2.3	Insert Labour category name here	-	-	0.00	0.00
11.2.4	Insert Labour category name here	-	-	0.00	0.00
11.2.5	Insert Labour category name here	-	-	0.00	0.00
11.2.6	Insert Labour category name here	-	-	0.00	0.00
12.1	Insert Labour category name here	-	-	0.00	0.00
12.2	Insert Labour category name here	-	-	0.00	0.00
12.3	Insert Labour category name here	-	-	0.00	0.00
12.4	Insert Labour category name here	-	-	0.00	0.00
13.1	Insert Labour category name here	-	-	0.00	0.00
13.2	Insert Labour category name here	-	-	0.00	0.00
13.3	Insert Labour category name here	-	-	0.00	0.00
13.4	Insert Labour category name here	-	-	0.00	0.00
13.5	Insert Labour category name here	-	-	0.00	0.00
14.1	Insert Labour category name here	-	-	0.00	0.00
14.2	Insert Labour category name here	-	-	0.00	0.00
14.3	Insert Labour category name here	-	-	0.00	0.00
14.4	Insert Labour category name here	-	-	0.00	0.00
14.5	Insert Labour category name here	-	-	0.00	0.00
14.6	Insert Labour category name here	-	-	0.00	0.00
14.7	Insert Labour category name here	-	-	0.00	0.00
Total					**0.00**

CLIN	Equipment Name	Item Description	Currency	Quantity 2020	Quantity 2021	Quantity 2022	Quantity 2023	Unit cost 2020	Unit cost 2021	Unit cost 2022	Unit cost 2023	Extended cost	Profit	Fully burdened cost	Subcontracted/ Name of Subcontractor
Example. CLIN 1.1.1	EXAMPLE: BrandX Server: TS1593	Example: HT800003 (model number)	Euro (EUR)	10	20	25	5	150.00	155.00	160.00	165.00	9,425.00	471.25	9,896.25	No
6.1.1	Insert Purchased Equipment name	Insert Item Description/Model number										0.00	0.00	0.00	
6.1.2	Insert Purchased Equipment name	Insert Item Description/Model number										0.00	0.00	0.00	
6.1.3	Insert Purchased Equipment name	Insert Item Description/Model number										0.00	0.00	0.00	
6.1.4	Insert Purchased Equipment name	Insert Item Description/Model number										0.00	0.00	0.00	
6.1.5	Insert Purchased Equipment name	Insert Item Description/Model number										0.00	0.00	0.00	
6.1.6	Insert Purchased Equipment name	Insert Item Description/Model number										0.00	0.00	0.00	
6.1.7	Insert Purchased Equipment name	Insert Item Description/Model number										0.00	0.00	0.00	
6.1.8	Insert Purchased Equipment name	Insert Item Description/Model number										0.00	0.00	0.00	
6.1.9	Insert Purchased Equipment name	Insert Item Description/Model number										0.00	0.00	0.00	
6.1.10	Insert Purchased Equipment name	Insert Item Description/Model number										0.00	0.00	0.00	
6.1.11	Insert Purchased Equipment name	Insert Item Description/Model number										0.00	0.00	0.00	
6.1.12	Insert Purchased Equipment name	Insert Item Description/Model number										0.00	0.00	0.00	
6.1.13	Insert Purchased Equipment name	Insert Item Description/Model number										0.00	0.00	0.00	
6.1.14	Insert Purchased Equipment name	Insert Item Description/Model number										0.00	0.00	0.00	
6.1.15	Insert Purchased Equipment name	Insert Item Description/Model number										0.00	0.00	0.00	
6.1.16	Insert Purchased Equipment name	Insert Item Description/Model number										0.00	0.00	0.00	
6.1.17	Insert Purchased Equipment name	Insert Item Description/Model number										0.00	0.00	0.00	
6.1.18	Insert Purchased Equipment name	Insert Item Description/Model number										0.00	0.00	0.00	
6.1.19	Insert Purchased Equipment name	Insert Item Description/Model number										0.00	0.00	0.00	
6.1.20	Insert Purchased Equipment name	Insert Item Description/Model number										0.00	0.00	0.00	
6.1.21	Insert Purchased Equipment name	Insert Item Description/Model number										0.00	0.00	0.00	
6.1.22	Insert Purchased Equipment name	Insert Item Description/Model number										0.00	0.00	0.00	
6.1.23	Insert Purchased Equipment name	Insert Item Description/Model number										0.00	0.00	0.00	
6.1.24	Insert Purchased Equipment name	Insert Item Description/Model number										0.00	0.00	0.00	
6.1.25	Insert Purchased Equipment name	Insert Item Description/Model number										0.00	0.00	0.00	
6.1.26	Insert Purchased Equipment name	Insert Item Description/Model number										0.00	0.00	0.00	
6.1.27	Insert Purchased Equipment name	Insert Item Description/Model number										0.00	0.00	0.00	
6.1.28	Insert Purchased Equipment name	Insert Item Description/Model number										0.00	0.00	0.00	
6.1.29	Insert Purchased Equipment name	Insert Item Description/Model number										0.00	0.00	0.00	
6.1.30	Insert Purchased Equipment name	Insert Item Description/Model number										0.00	0.00	0.00	
6.1.31	Insert Purchased Equipment name	Insert Item Description/Model number										0.00	0.00	0.00	
6.1.32	Insert Purchased Equipment name	Insert Item Description/Model number										0.00	0.00	0.00	
6.1.33	Insert Purchased Equipment name	Insert Item Description/Model number										0.00	0.00	0.00	
6.1.34	Insert Purchased Equipment name	Insert Item Description/Model number										0.00	0.00	0.00	
6.1.35	Insert Purchased Equipment name	Insert Item Description/Model number										0.00	0.00	0.00	
6.1.36	Insert Purchased Equipment name	Insert Item Description/Model number										0.00	0.00	0.00	
6.1.37	Insert Purchased Equipment name	Insert Item Description/Model number										0.00	0.00	0.00	
6.1.38	Insert Purchased Equipment name	Insert Item Description/Model number										0.00	0.00	0.00	
6.1.39	Insert Purchased Equipment name	Insert Item Description/Model number										0.00	0.00	0.00	
6.1.40	Insert Purchased Equipment name	Insert Item Description/Model number										0.00	0.00	0.00	
6.1.41	Insert Purchased Equipment name	Insert Item Description/Model number										0.00	0.00	0.00	
6.1.42	Insert Purchased Equipment name	Insert Item Description/Model number										0.00	0.00	0.00	
6.1.43	Insert Purchased Equipment name	Insert Item Description/Model number										0.00	0.00	0.00	
6.1.44	Insert Purchased Equipment name	Insert Item Description/Model number										0.00	0.00	0.00	
6.1.45	Insert Purchased Equipment name	Insert Item Description/Model number										0.00	0.00	0.00	
6.1.46	Insert Purchased Equipment name	Insert Item Description/Model number										0.00	0.00	0.00	
6.1.47	Insert Purchased Equipment name	Insert Item Description/Model number										0.00	0.00	0.00	
6.1.48	Insert Purchased Equipment name	Insert Item Description/Model number										0.00	0.00	0.00	
6.1.49	Insert Purchased Equipment name	Insert Item Description/Model number										0.00	0.00	0.00	
6.1.50	Insert Purchased Equipment name	Insert Item Description/Model number										0.00	0.00	0.00	
6.1.51	Insert Purchased Equipment name	Insert Item Description/Model number										0.00	0.00	0.00	
6.1.52	Insert Purchased Equipment name	Insert Item Description/Model number										0.00	0.00	0.00	
6.1.53	Insert Purchased Equipment name	Insert Item Description/Model number										0.00	0.00	0.00	
6.1.54	Insert Purchased Equipment name	Insert Item Description/Model number										0.00	0.00	0.00	
6.1.55	Insert Purchased Equipment name	Insert Item Description/Model number										0.00	0.00	0.00	
6.1.56	Insert Purchased Equipment name	Insert Item Description/Model number										0.00	0.00	0.00	
6.1.57	Insert Purchased Equipment name	Insert Item Description/Model number										0.00	0.00	0.00	
6.2.1	Insert Purchased Equipment name	Insert Item Description/Model number										0.00	0.00	0.00	
6.2.2	Insert Purchased Equipment name	Insert Item Description/Model number										0.00	0.00	0.00	
6.2.3	Insert Purchased Equipment name	Insert Item Description/Model number										0.00	0.00	0.00	
6.2.4	Insert Purchased Equipment name	Insert Item Description/Model number										0.00	0.00	0.00	
6.2.5	Insert Purchased Equipment name	Insert Item Description/Model number										0.00	0.00	0.00	
6.2.6	Insert Purchased Equipment name	Insert Item Description/Model number										0.00	0.00	0.00	

6.2.7	Insert Purchased Equipment name	Insert Item Description/Model number	0.00	0.00	0.00
6.2.8	Insert Purchased Equipment name	Insert Item Description/Model number	0.00	0.00	0.00
6.2.9	Insert Purchased Equipment name	Insert Item Description/Model number	0.00	0.00	0.00
6.2.10	Insert Purchased Equipment name	Insert Item Description/Model number	0.00	0.00	0.00
6.3.1	Insert Purchased Equipment name	Insert Item Description/Model number	0.00	0.00	0.00
6.3.2	Insert Purchased Equipment name	Insert Item Description/Model number	0.00	0.00	0.00
6.3.3	Insert Purchased Equipment name	Insert Item Description/Model number	0.00	0.00	0.00
6.3.4	Insert Purchased Equipment name	Insert Item Description/Model number	0.00	0.00	0.00
6.3.5	Insert Purchased Equipment name	Insert Item Description/Model number	0.00	0.00	0.00
6.3.6	Insert Purchased Equipment name	Insert Item Description/Model number	0.00	0.00	0.00
6.3.7	Insert Purchased Equipment name	Insert Item Description/Model number	0.00	0.00	0.00
6.3.8	Insert Purchased Equipment name	Insert Item Description/Model number	0.00	0.00	0.00
6.3.9	Insert Purchased Equipment name	Insert Item Description/Model number	0.00	0.00	0.00
6.3.10	Insert Purchased Equipment name	Insert Item Description/Model number	0.00	0.00	0.00
6.3.11	Insert Purchased Equipment name	Insert Item Description/Model number	0.00	0.00	0.00
6.4.1	Insert Purchased Equipment name	Insert Item Description/Model number	0.00	0.00	0.00
6.4.2	Insert Purchased Equipment name	Insert Item Description/Model number	0.00	0.00	0.00
6.4.3	Insert Purchased Equipment name	Insert Item Description/Model number	0.00	0.00	0.00
6.4.4	Insert Purchased Equipment name	Insert Item Description/Model number	0.00	0.00	0.00
6.4.5	Insert Purchased Equipment name	Insert Item Description/Model number	0.00	0.00	0.00
6.4.6	Insert Purchased Equipment name	Insert Item Description/Model number	0.00	0.00	0.00
6.4.7	Insert Purchased Equipment name	Insert Item Description/Model number	0.00	0.00	0.00
6.4.8	Insert Purchased Equipment name	Insert Item Description/Model number	0.00	0.00	0.00
6.4.9	Insert Purchased Equipment name	Insert Item Description/Model number	0.00	0.00	0.00
6.4.10	Insert Purchased Equipment name	Insert Item Description/Model number	0.00	0.00	0.00
6.4.11	Insert Purchased Equipment name	Insert Item Description/Model number	0.00	0.00	0.00
6.4.12	Insert Purchased Equipment name	Insert Item Description/Model number	0.00	0.00	0.00
6.4.13	Insert Purchased Equipment name	Insert Item Description/Model number	0.00	0.00	0.00
6.4.14	Insert Purchased Equipment name	Insert Item Description/Model number	0.00	0.00	0.00
6.4.15	Insert Purchased Equipment name	Insert Item Description/Model number	0.00	0.00	0.00
6.4.16	Insert Purchased Equipment name	Insert Item Description/Model number	0.00	0.00	0.00
6.4.17	Insert Purchased Equipment name	Insert Item Description/Model number	0.00	0.00	0.00
6.5.1	Insert Purchased Equipment name	Insert Item Description/Model number	0.00	0.00	0.00
6.5.2	Insert Purchased Equipment name	Insert Item Description/Model number	0.00	0.00	0.00
6.5.3	Insert Purchased Equipment name	Insert Item Description/Model number	0.00	0.00	0.00
6.5.4	Insert Purchased Equipment name	Insert Item Description/Model number	0.00	0.00	0.00
6.5.5	Insert Purchased Equipment name	Insert Item Description/Model number	0.00	0.00	0.00
6.5.6	Insert Purchased Equipment name	Insert Item Description/Model number	0.00	0.00	0.00
6.5.7	Insert Purchased Equipment name	Insert Item Description/Model number	0.00	0.00	0.00
6.5.8	Insert Purchased Equipment name	Insert Item Description/Model number	0.00	0.00	0.00
6.5.9	Insert Purchased Equipment name	Insert Item Description/Model number	0.00	0.00	0.00
6.5.10	Insert Purchased Equipment name	Insert Item Description/Model number	0.00	0.00	0.00
6.5.11	Insert Purchased Equipment name	Insert Item Description/Model number	0.00	0.00	0.00
6.5.12	Insert Purchased Equipment name	Insert Item Description/Model number	0.00	0.00	0.00
6.5.13	Insert Purchased Equipment name	Insert Item Description/Model number	0.00	0.00	0.00
6.5.14	Insert Purchased Equipment name	Insert Item Description/Model number	0.00	0.00	0.00
6.5.15	Insert Purchased Equipment name	Insert Item Description/Model number	0.00	0.00	0.00
6.6.1	Insert Purchased Equipment name	Insert Item Description/Model number	0.00	0.00	0.00
6.6.2	Insert Purchased Equipment name	Insert Item Description/Model number	0.00	0.00	0.00
6.6.3	Insert Purchased Equipment name	Insert Item Description/Model number	0.00	0.00	0.00
6.6.4	Insert Purchased Equipment name	Insert Item Description/Model number	0.00	0.00	0.00
6.6.5	Insert Purchased Equipment name	Insert Item Description/Model number	0.00	0.00	0.00
6.6.6	Insert Purchased Equipment name	Insert Item Description/Model number	0.00	0.00	0.00
6.6.7	Insert Purchased Equipment name	Insert Item Description/Model number	0.00	0.00	0.00
6.6.8	Insert Purchased Equipment name	Insert Item Description/Model number	0.00	0.00	0.00
6.6.9	Insert Purchased Equipment name	Insert Item Description/Model number	0.00	0.00	0.00
6.6.10	Insert Purchased Equipment name	Insert Item Description/Model number	0.00	0.00	0.00
6.6.11	Insert Purchased Equipment name	Insert Item Description/Model number	0.00	0.00	0.00
6.6.12	Insert Purchased Equipment name	Insert Item Description/Model number	0.00	0.00	0.00
6.6.13	Insert Purchased Equipment name	Insert Item Description/Model number	0.00	0.00	0.00
6.6.14	Insert Purchased Equipment name	Insert Item Description/Model number	0.00	0.00	0.00
6.6.15	Insert Purchased Equipment name	Insert Item Description/Model number	0.00	0.00	0.00
6.6.16	Insert Purchased Equipment name	Insert Item Description/Model number	0.00	0.00	0.00
6.6.17	Insert Purchased Equipment name	Insert Item Description/Model number	0.00	0.00	0.00
6.6.18	Insert Purchased Equipment name	Insert Item Description/Model number	0.00	0.00	0.00
6.6.19	Insert Purchased Equipment name	Insert Item Description/Model number	0.00	0.00	0.00

6.6.20	Insert Purchased Equipment name	Insert Item Description/Model number	0.00	0.00	0.00
6.6.21	Insert Purchased Equipment name	Insert Item Description/Model number	0.00	0.00	0.00
6.6.22	Insert Purchased Equipment name	Insert Item Description/Model number	0.00	0.00	0.00
6.6.23	Insert Purchased Equipment name	Insert Item Description/Model number	0.00	0.00	0.00
6.6.24	Insert Purchased Equipment name	Insert Item Description/Model number	0.00	0.00	0.00
6.6.25	Insert Purchased Equipment name	Insert Item Description/Model number	0.00	0.00	0.00
6.6.26	Insert Purchased Equipment name	Insert Item Description/Model number	0.00	0.00	0.00
6.6.27	Insert Purchased Equipment name	Insert Item Description/Model number	0.00	0.00	0.00
6.6.28	Insert Purchased Equipment name	Insert Item Description/Model number	0.00	0.00	0.00
6.6.29	Insert Purchased Equipment name	Insert Item Description/Model number	0.00	0.00	0.00
6.6.30	Insert Purchased Equipment name	Insert Item Description/Model number	0.00	0.00	0.00
6.6.31	Insert Purchased Equipment name	Insert Item Description/Model number	0.00	0.00	0.00
6.6.32	Insert Purchased Equipment name	Insert Item Description/Model number	0.00	0.00	0.00
6.6.33	Insert Purchased Equipment name	Insert Item Description/Model number	0.00	0.00	0.00
6.6.34	Insert Purchased Equipment name	Insert Item Description/Model number	0.00	0.00	0.00
6.6.35	Insert Purchased Equipment name	Insert Item Description/Model number	0.00	0.00	0.00
6.6.36	Insert Purchased Equipment name	Insert Item Description/Model number	0.00	0.00	0.00
6.6.37	Insert Purchased Equipment name	Insert Item Description/Model number	0.00	0.00	0.00
6.6.38	Insert Purchased Equipment name	Insert Item Description/Model number	0.00	0.00	0.00
6.6.39	Insert Purchased Equipment name	Insert Item Description/Model number	0.00	0.00	0.00
6.6.40	Insert Purchased Equipment name	Insert Item Description/Model number	0.00	0.00	0.00
6.6.41	Insert Purchased Equipment name	Insert Item Description/Model number	0.00	0.00	0.00
6.6.42	Insert Purchased Equipment name	Insert Item Description/Model number	0.00	0.00	0.00
6.6.43	Insert Purchased Equipment name	Insert Item Description/Model number	0.00	0.00	0.00
6.6.44	Insert Purchased Equipment name	Insert Item Description/Model number	0.00	0.00	0.00
6.6.45	Insert Purchased Equipment name	Insert Item Description/Model number	0.00	0.00	0.00
6.6.46	Insert Purchased Equipment name	Insert Item Description/Model number	0.00	0.00	0.00
6.6.47	Insert Purchased Equipment name	Insert Item Description/Model number	0.00	0.00	0.00
6.6.48	Insert Purchased Equipment name	Insert Item Description/Model number	0.00	0.00	0.00
6.6.49	Insert Purchased Equipment name	Insert Item Description/Model number	0.00	0.00	0.00
6.6.50	Insert Purchased Equipment name	Insert Item Description/Model number	0.00	0.00	0.00
6.6.51	Insert Purchased Equipment name	Insert Item Description/Model number	0.00	0.00	0.00
6.6.52	Insert Purchased Equipment name	Insert Item Description/Model number	0.00	0.00	0.00
6.6.53	Insert Purchased Equipment name	Insert Item Description/Model number	0.00	0.00	0.00
6.6.54	Insert Purchased Equipment name	Insert Item Description/Model number	0.00	0.00	0.00
6.6.55	Insert Purchased Equipment name	Insert Item Description/Model number	0.00	0.00	0.00
6.6.56	Insert Purchased Equipment name	Insert Item Description/Model number	0.00	0.00	0.00
6.6.57	Insert Purchased Equipment name	Insert Item Description/Model number	0.00	0.00	0.00
6.6.58	Insert Purchased Equipment name	Insert Item Description/Model number	0.00	0.00	0.00
6.6.59	Insert Purchased Equipment name	Insert Item Description/Model number	0.00	0.00	0.00
6.6.60	Insert Purchased Equipment name	Insert Item Description/Model number	0.00	0.00	0.00
6.6.61	Insert Purchased Equipment name	Insert Item Description/Model number	0.00	0.00	0.00
6.6.62	Insert Purchased Equipment name	Insert Item Description/Model number	0.00	0.00	0.00
6.6.63	Insert Purchased Equipment name	Insert Item Description/Model number	0.00	0.00	0.00
6.6.64	Insert Purchased Equipment name	Insert Item Description/Model number	0.00	0.00	0.00
6.6.65	Insert Purchased Equipment name	Insert Item Description/Model number	0.00	0.00	0.00
6.6.66	Insert Purchased Equipment name	Insert Item Description/Model number	0.00	0.00	0.00
6.6.67	Insert Purchased Equipment name	Insert Item Description/Model number	0.00	0.00	0.00
6.6.68	Insert Purchased Equipment name	Insert Item Description/Model number	0.00	0.00	0.00
6.7.1	Insert Purchased Equipment name	Insert Item Description/Model number	0.00	0.00	0.00
6.7.2	Insert Purchased Equipment name	Insert Item Description/Model number	0.00	0.00	0.00
6.7.3	Insert Purchased Equipment name	Insert Item Description/Model number	0.00	0.00	0.00
6.7.4	Insert Purchased Equipment name	Insert Item Description/Model number	0.00	0.00	0.00
6.7.5	Insert Purchased Equipment name	Insert Item Description/Model number	0.00	0.00	0.00
6.7.6	Insert Purchased Equipment name	Insert Item Description/Model number	0.00	0.00	0.00
6.7.7	Insert Purchased Equipment name	Insert Item Description/Model number	0.00	0.00	0.00
6.7.8	Insert Purchased Equipment name	Insert Item Description/Model number	0.00	0.00	0.00
6.7.9	Insert Purchased Equipment name	Insert Item Description/Model number	0.00	0.00	0.00
6.7.10	Insert Purchased Equipment name	Insert Item Description/Model number	0.00	0.00	0.00
6.7.11	Insert Purchased Equipment name	Insert Item Description/Model number	0.00	0.00	0.00
6.7.12	Insert Purchased Equipment name	Insert Item Description/Model number	0.00	0.00	0.00
6.7.13	Insert Purchased Equipment name	Insert Item Description/Model number	0.00	0.00	0.00
6.7.14	Insert Purchased Equipment name	Insert Item Description/Model number	0.00	0.00	0.00
6.7.15	Insert Purchased Equipment name	Insert Item Description/Model number	0.00	0.00	0.00
6.7.16	Insert Purchased Equipment name	Insert Item Description/Model number	0.00	0.00	0.00
6.7.17	Insert Purchased Equipment name	Insert Item Description/Model number	0.00	0.00	0.00

12.1.1	Insert Purchased Equipment name	Insert Item Description/Model number	0.00	0.00	0.00
12.1.2	Insert Purchased Equipment name	Insert Item Description/Model number	0.00	0.00	0.00
12.1.3	Insert Purchased Equipment name	Insert Item Description/Model number	0.00	0.00	0.00
12.1.4	Insert Purchased Equipment name	Insert Item Description/Model number	0.00	0.00	0.00
12.1.5	Insert Purchased Equipment name	Insert Item Description/Model number	0.00	0.00	0.00
12.1.6	Insert Purchased Equipment name	Insert Item Description/Model number	0.00	0.00	0.00
12.1.7	Insert Purchased Equipment name	Insert Item Description/Model number	0.00	0.00	0.00
12.1.8	Insert Purchased Equipment name	Insert Item Description/Model number	0.00	0.00	0.00
12.1.9	Insert Purchased Equipment name	Insert Item Description/Model number	0.00	0.00	0.00
12.1.10	Insert Purchased Equipment name	Insert Item Description/Model number	0.00	0.00	0.00
12.1.11	Insert Purchased Equipment name	Insert Item Description/Model number	0.00	0.00	0.00
12.1.12	Insert Purchased Equipment name	Insert Item Description/Model number	0.00	0.00	0.00
12.1.13	Insert Purchased Equipment name	Insert Item Description/Model number	0.00	0.00	0.00
12.1.14	Insert Purchased Equipment name	Insert Item Description/Model number	0.00	0.00	0.00
12.1.15	Insert Purchased Equipment name	Insert Item Description/Model number	0.00	0.00	0.00
12.1.16	Insert Purchased Equipment name	Insert Item Description/Model number	0.00	0.00	0.00
12.1.17	Insert Purchased Equipment name	Insert Item Description/Model number	0.00	0.00	0.00
12.1.18	Insert Purchased Equipment name	Insert Item Description/Model number	0.00	0.00	0.00
12.1.19	Insert Purchased Equipment name	Insert Item Description/Model number	0.00	0.00	0.00
12.1.20	Insert Purchased Equipment name	Insert Item Description/Model number	0.00	0.00	0.00
12.1.21	Insert Purchased Equipment name	Insert Item Description/Model number	0.00	0.00	0.00
12.1.22	Insert Purchased Equipment name	Insert Item Description/Model number	0.00	0.00	0.00
12.1.23	Insert Purchased Equipment name	Insert Item Description/Model number	0.00	0.00	0.00
12.1.24	Insert Purchased Equipment name	Insert Item Description/Model number	0.00	0.00	0.00
12.1.25	Insert Purchased Equipment name	Insert Item Description/Model number	0.00	0.00	0.00
12.1.26	Insert Purchased Equipment name	Insert Item Description/Model number	0.00	0.00	0.00
12.1.27	Insert Purchased Equipment name	Insert Item Description/Model number	0.00	0.00	0.00
12.1.28	Insert Purchased Equipment name	Insert Item Description/Model number	0.00	0.00	0.00
12.1.29	Insert Purchased Equipment name	Insert Item Description/Model number	0.00	0.00	0.00
12.1.30	Insert Purchased Equipment name	Insert Item Description/Model number	0.00	0.00	0.00
12.1.31	Insert Purchased Equipment name	Insert Item Description/Model number	0.00	0.00	0.00
12.1.32	Insert Purchased Equipment name	Insert Item Description/Model number	0.00	0.00	0.00
12.1.33	Insert Purchased Equipment name	Insert Item Description/Model number	0.00	0.00	0.00
12.1.34	Insert Purchased Equipment name	Insert Item Description/Model number	0.00	0.00	0.00
12.2.1	Insert Purchased Equipment name	Insert Item Description/Model number	0.00	0.00	0.00
12.2.2	Insert Purchased Equipment name	Insert Item Description/Model number	0.00	0.00	0.00
12.2.3	Insert Purchased Equipment name	Insert Item Description/Model number	0.00	0.00	0.00
12.2.4	Insert Purchased Equipment name	Insert Item Description/Model number	0.00	0.00	0.00
12.2.5	Insert Purchased Equipment name	Insert Item Description/Model number	0.00	0.00	0.00
12.2.6	Insert Purchased Equipment name	Insert Item Description/Model number	0.00	0.00	0.00
12.2.7	Insert Purchased Equipment name	Insert Item Description/Model number	0.00	0.00	0.00
12.2.8	Insert Purchased Equipment name	Insert Item Description/Model number	0.00	0.00	0.00
12.2.9	Insert Purchased Equipment name	Insert Item Description/Model number	0.00	0.00	0.00
12.2.10	Insert Purchased Equipment name	Insert Item Description/Model number	0.00	0.00	0.00
12.2.11	Insert Purchased Equipment name	Insert Item Description/Model number	0.00	0.00	0.00
12.2.12	Insert Purchased Equipment name	Insert Item Description/Model number	0.00	0.00	0.00
12.3.1	Insert Purchased Equipment name	Insert Item Description/Model number	0.00	0.00	0.00
12.3.2	Insert Purchased Equipment name	Insert Item Description/Model number	0.00	0.00	0.00
12.3.3	Insert Purchased Equipment name	Insert Item Description/Model number	0.00	0.00	0.00
12.3.4	Insert Purchased Equipment name	Insert Item Description/Model number	0.00	0.00	0.00
12.3.5	Insert Purchased Equipment name	Insert Item Description/Model number	0.00	0.00	0.00
12.3.6	Insert Purchased Equipment name	Insert Item Description/Model number	0.00	0.00	0.00
12.3.7	Insert Purchased Equipment name	Insert Item Description/Model number	0.00	0.00	0.00
12.3.8	Insert Purchased Equipment name	Insert Item Description/Model number	0.00	0.00	0.00
12.3.9	Insert Purchased Equipment name	Insert Item Description/Model number	0.00	0.00	0.00
12.3.10	Insert Purchased Equipment name	Insert Item Description/Model number	0.00	0.00	0.00
12.3.11	Insert Purchased Equipment name	Insert Item Description/Model number	0.00	0.00	0.00
12.3.12	Insert Purchased Equipment name	Insert Item Description/Model number	0.00	0.00	0.00
12.4.1	Insert Purchased Equipment name	Insert Item Description/Model number	0.00	0.00	0.00
12.4.2	Insert Purchased Equipment name	Insert Item Description/Model number	0.00	0.00	0.00
12.4.3	Insert Purchased Equipment name	Insert Item Description/Model number	0.00	0.00	0.00
12.4.4	Insert Purchased Equipment name	Insert Item Description/Model number	0.00	0.00	0.00
12.4.5	Insert Purchased Equipment name	Insert Item Description/Model number	0.00	0.00	0.00
12.4.6	Insert Purchased Equipment name	Insert Item Description/Model number	0.00	0.00	0.00
12.4.7	Insert Purchased Equipment name	Insert Item Description/Model number	0.00	0.00	0.00
12.4.8	Insert Purchased Equipment name	Insert Item Description/Model number	0.00	0.00	0.00

12.4.9	Insert Purchased Equipment name	Insert Item Description/Model number	0.00	0.00	0.00
12.4.10	Insert Purchased Equipment name	Insert Item Description/Model number	0.00	0.00	0.00
12.4.11	Insert Purchased Equipment name	Insert Item Description/Model number	0.00	0.00	0.00
12.4.12	Insert Purchased Equipment name	Insert Item Description/Model number	0.00	0.00	0.00
12.4.13	Insert Purchased Equipment name	Insert Item Description/Model number	0.00	0.00	0.00
12.4.14	Insert Purchased Equipment name	Insert Item Description/Model number	0.00	0.00	0.00
12.4.15	Insert Purchased Equipment name	Insert Item Description/Model number	0.00	0.00	0.00
Total					**0.00**

CLIN	Origin/Destination	Year	Currency	Nr of trips	Nr of people	Nr of Days per trip	Cost per roundtrip	Per Diem	Extended cost	Profit	Total Cost
Example. CLIN 1.1.1	Rome/The Hague	2020	Euro (EUR)	4	3	5	600.00	150.00	16,200.00	810.00	17,010.00
1.1	Insert Origin/destination								-	0.00	0.00
1.2	Insert Origin/destination								-	0.00	0.00
1.3	Insert Origin/destination								-	0.00	0.00
2.1	Insert Origin/destination								-	0.00	0.00
2.2	Insert Origin/destination								-	0.00	0.00
2.3	Insert Origin/destination								-	0.00	0.00
2.4	Insert Origin/destination								-	0.00	0.00
2.5	Insert Origin/destination								-	0.00	0.00
2.6	Insert Origin/destination								-	0.00	0.00
2.7	Insert Origin/destination								-	0.00	0.00
3.1	Insert Origin/destination								-	0.00	0.00
3.2	Insert Origin/destination								-	0.00	0.00
3.3	Insert Origin/destination								-	0.00	0.00
3.4	Insert Origin/destination								-	0.00	0.00
3.5	Insert Origin/destination								-	0.00	0.00
3.6	Insert Origin/destination								-	0.00	0.00
3.7	Insert Origin/destination								-	0.00	0.00
3.8	Insert Origin/destination								-	0.00	0.00
3.9	Insert Origin/destination								-	0.00	0.00
3.10	Insert Origin/destination								-	0.00	0.00
3.11	Insert Origin/destination								-	0.00	0.00
4.1	Insert Origin/destination								-	0.00	0.00
4.2	Insert Origin/destination								-	0.00	0.00
4.3	Insert Origin/destination								-	0.00	0.00
4.4	Insert Origin/destination								-	0.00	0.00
5.1	Insert Origin/destination								-	0.00	0.00
5.2	Insert Origin/destination								-	0.00	0.00
5.3	Insert Origin/destination								-	0.00	0.00
5.4	Insert Origin/destination								-	0.00	0.00
5.5	Insert Origin/destination								-	0.00	0.00
5.6	Insert Origin/destination								-	0.00	0.00
5.7	Insert Origin/destination								-	0.00	0.00
5.8	Insert Origin/destination								-	0.00	0.00
5.9	Insert Origin/destination								-	0.00	0.00
5.10	Insert Origin/destination								-	0.00	0.00
5.11	Insert Origin/destination								-	0.00	0.00
5.12	Insert Origin/destination								-	0.00	0.00
5.13	Insert Origin/destination								-	0.00	0.00
6.1	Insert Origin/destination								-	0.00	0.00
6.2	Insert Origin/destination								-	0.00	0.00
6.3	Insert Origin/destination								-	0.00	0.00
6.4	Insert Origin/destination								-	0.00	0.00
6.5	Insert Origin/destination								-	0.00	0.00

6.6	Insert Origin/destination	-	0.00	0.00
6.7	Insert Origin/destination	-	0.00	0.00
7.1	Insert Origin/destination	-	0.00	0.00
7.2	Insert Origin/destination	-	0.00	0.00
8.1	Insert Origin/destination	-	0.00	0.00
8.2	Insert Origin/destination	-	0.00	0.00
9.1	Insert Origin/destination	-	0.00	0.00
9.2	Insert Origin/destination	-	0.00	0.00
9.3	Insert Origin/destination	-	0.00	0.00
9.4	Insert Origin/destination	-	0.00	0.00
9.5	Insert Origin/destination	-	0.00	0.00
9.6	Insert Origin/destination	-	0.00	0.00
10.1	Insert Origin/destination	-	0.00	0.00
10.2	Insert Origin/destination	-	0.00	0.00
11.1.1	Insert Origin/destination	-	0.00	0.00
11.1.2	Insert Origin/destination	-	0.00	0.00
11.1.3	Insert Origin/destination	-	0.00	0.00
11.1.4	Insert Origin/destination	-	0.00	0.00
11.1.5	Insert Origin/destination	-	0.00	0.00
11.1.6	Insert Origin/destination	-	0.00	0.00
11.2.1	Insert Origin/destination	-	0.00	0.00
11.2.2	Insert Origin/destination	-	0.00	0.00
11.2.3	Insert Origin/destination	-	0.00	0.00
11.2.4	Insert Origin/destination	-	0.00	0.00
11.2.5	Insert Origin/destination	-	0.00	0.00
11.2.6	Insert Origin/destination	-	0.00	0.00
12.1	Insert Origin/destination	-	0.00	0.00
12.2	Insert Origin/destination	-	0.00	0.00
12.3	Insert Origin/destination	-	0.00	0.00
12.4	Insert Origin/destination	-	0.00	0.00
13.1	Insert Origin/destination	-	0.00	0.00
13.2	Insert Origin/destination	-	0.00	0.00
13.3	Insert Origin/destination	-	0.00	0.00
13.4	Insert Origin/destination	-	0.00	0.00
13.5	Insert Origin/destination	-	0.00	0.00
14.1	Insert Origin/destination	-	0.00	0.00
14.2	Insert Origin/destination	-	0.00	0.00
14.3	Insert Origin/destination	-	0.00	0.00
14.4	Insert Origin/destination	-	0.00	0.00
14.5	Insert Origin/destination	-	0.00	0.00
14.6	Insert Origin/destination	-	0.00	0.00
14.7	Insert Origin/destination	-	0.00	0.00
Total				**0.00**

CLIN	Item Name	Item Description	Year	Currency	Unit Type	Quantity	Unit cost	Extended cost	Profit	Total Cost
Example. CLIN 1.1.1	Shipping	Shipping USA to BRU	2020	Euro (EUR)	Lot	2	3,000.00	6,000.00	300.00	6,300.00
1.1	Insert Other Direct Cost item							0.00	0.00	0.00
1.2	Insert Other Direct Cost item							0.00	0.00	0.00
1.3	Insert Other Direct Cost item							0.00	0.00	0.00
2.1	Insert Other Direct Cost item							0.00	0.00	0.00
2.2	Insert Other Direct Cost item							0.00	0.00	0.00
2.3	Insert Other Direct Cost item							0.00	0.00	0.00
2.4	Insert Other Direct Cost item							0.00	0.00	0.00
2.5	Insert Other Direct Cost item							0.00	0.00	0.00
2.6	Insert Other Direct Cost item							0.00	0.00	0.00
2.7	Insert Other Direct Cost item							0.00	0.00	0.00
3.1	Insert Other Direct Cost item							0.00	0.00	0.00
3.2	Insert Other Direct Cost item							0.00	0.00	0.00
3.3	Insert Other Direct Cost item							0.00	0.00	0.00
3.4	Insert Other Direct Cost item							0.00	0.00	0.00
3.5	Insert Other Direct Cost item							0.00	0.00	0.00
3.6	Insert Other Direct Cost item							0.00	0.00	0.00
3.7	Insert Other Direct Cost item							0.00	0.00	0.00
3.8	Insert Other Direct Cost item							0.00	0.00	0.00
3.9	Insert Other Direct Cost item							0.00	0.00	0.00
3.10	Insert Other Direct Cost item							0.00	0.00	0.00
3.11	Insert Other Direct Cost item							0.00	0.00	0.00
4.1	Insert Other Direct Cost item							0.00	0.00	0.00
4.2	Insert Other Direct Cost item							0.00	0.00	0.00
4.3	Insert Other Direct Cost item							0.00	0.00	0.00
4.4	Insert Other Direct Cost item							0.00	0.00	0.00
5.1	Insert Other Direct Cost item							0.00	0.00	0.00
5.2	Insert Other Direct Cost item							0.00	0.00	0.00
5.3	Insert Other Direct Cost item							0.00	0.00	0.00
5.4	Insert Other Direct Cost item							0.00	0.00	0.00
5.5	Insert Other Direct Cost item							0.00	0.00	0.00
5.6	Insert Other Direct Cost item							0.00	0.00	0.00
5.7	Insert Other Direct Cost item							0.00	0.00	0.00
5.8	Insert Other Direct Cost item							0.00	0.00	0.00
5.9	Insert Other Direct Cost item							0.00	0.00	0.00
5.10	Insert Other Direct Cost item							0.00	0.00	0.00
5.11	Insert Other Direct Cost item							0.00	0.00	0.00
5.12	Insert Other Direct Cost item							0.00	0.00	0.00
5.13	Insert Other Direct Cost item							0.00	0.00	0.00
6.1	Insert Other Direct Cost item							0.00	0.00	0.00
6.2	Insert Other Direct Cost item							0.00	0.00	0.00

6.3	Insert Other Direct Cost item	0.00	0.00	0.00
6.4	Insert Other Direct Cost item	0.00	0.00	0.00
6.5	Insert Other Direct Cost item	0.00	0.00	0.00
6.6	Insert Other Direct Cost item	0.00	0.00	0.00
6.7	Insert Other Direct Cost item	0.00	0.00	0.00
7.1	Insert Other Direct Cost item	0.00	0.00	0.00
7.2	Insert Other Direct Cost item	0.00	0.00	0.00
8.1	Insert Other Direct Cost item	0.00	0.00	0.00
8.2	Insert Other Direct Cost item	0.00	0.00	0.00
9.1	Insert Other Direct Cost item	0.00	0.00	0.00
9.2	Insert Other Direct Cost item	0.00	0.00	0.00
9.3	Insert Other Direct Cost item	0.00	0.00	0.00
9.4	Insert Other Direct Cost item	0.00	0.00	0.00
9.5	Insert Other Direct Cost item	0.00	0.00	0.00
9.6	Insert Other Direct Cost item	0.00	0.00	0.00
10.1	Insert Other Direct Cost item	0.00	0.00	0.00
10.2	Insert Other Direct Cost item	0.00	0.00	0.00
11.1.1	Insert Other Direct Cost item	0.00	0.00	0.00
11.1.2	Insert Other Direct Cost item	0.00	0.00	0.00
11.1.3	Insert Other Direct Cost item	0.00	0.00	0.00
11.1.4	Insert Other Direct Cost item	0.00	0.00	0.00
11.1.5	Insert Other Direct Cost item	0.00	0.00	0.00
11.1.6	Insert Other Direct Cost item	0.00	0.00	0.00
11.2.1	Insert Other Direct Cost item	0.00	0.00	0.00
11.2.2	Insert Other Direct Cost item	0.00	0.00	0.00
11.2.3	Insert Other Direct Cost item	0.00	0.00	0.00
11.2.4	Insert Other Direct Cost item	0.00	0.00	0.00
11.2.5	Insert Other Direct Cost item	0.00	0.00	0.00
11.2.6	Insert Other Direct Cost item	0.00	0.00	0.00
12.1	Insert Other Direct Cost item	0.00	0.00	0.00
12.2	Insert Other Direct Cost item	0.00	0.00	0.00
12.3	Insert Other Direct Cost item	0.00	0.00	0.00
12.4	Insert Other Direct Cost item	0.00	0.00	0.00
13.1	Insert Other Direct Cost item	0.00	0.00	0.00
13.2	Insert Other Direct Cost item	0.00	0.00	0.00
13.3	Insert Other Direct Cost item	0.00	0.00	0.00
13.4	Insert Other Direct Cost item	0.00	0.00	0.00
13.5	Insert Other Direct Cost item	0.00	0.00	0.00
14.1	Insert Other Direct Cost item	0.00	0.00	0.00
14.2	Insert Other Direct Cost item	0.00	0.00	0.00
14.3	Insert Other Direct Cost item	0.00	0.00	0.00
14.4	Insert Other Direct Cost item	0.00	0.00	0.00
14.5	Insert Other Direct Cost item	0.00	0.00	0.00

14.6	Insert Other Direct Cost item	0.00	0.00	0.00
14.7	Insert Other Direct Cost item	0.00	0.00	0.00
Total				**0.00**

Rate Name	Rate description*	Percentage
[Insert Rate Name]		0%
[Insert Rate Name]		0%
[Insert Rate Name]		0%

INVITATION FOR BID

IFB-CO-15049-BITI

Technical Refresh of Balkans IT Infrastructure

Project Serial No.:
2017/1CM03034 / 2019/1IS03035

BOOK II

PROSPECTIVE CONTRACT
COVER SHEET

NCI Agency Contract CO-15049-BITI

between

NATO Communications and Information Organisation (NCI Agency)

- represented by the General Manager, NCI Agency -

NCI Agency Headquarters
Boulevard Leopold III
B-1110, Brussels
Belgium

and

[TBD]

Technical Refresh of Balkans IT Infrastructure

Effective Date: [TBD]

Total Contract Value: [TBD]

IFB-CO-15049-BITI
Book II – Prospective contract

SIGNATURE SHEET

IN WITNESS WHEREOF the parties hereto have caused this agreement
to be executed by their duly authorised officers on the date shown hereunder:

FOR THE CONTRACTOR:	**FOR THE PURCHASER**:
…………………………………………….. **Signature**	…………………………………………….. **Signature**
…………………………………………….. **Printed Name**	…………………………………………….. **Printed Name**
…………………………………………….. **Title of Signer**	…………………………………………….. **Title of Signer**
…………………………………………….. **Date**	…………………………………………….. **Date**

INVITATION FOR BID

IFB-CO-15049-BITI

Technical Refresh of Balkans IT Infrastructure

BOOK II, Part I

SCHEDULE OF SUPPLIES AND SERVICES

IFB-CO-15049-BITI
Book II – Prospective Contract, Part I,
Schedule of Supplies and Services

To be inserted from Winning Bid

INVITATION FOR BID

IFB-CO-15049-BITI

**Authorisation Serial Nos.:
2017/1CM03034/2019/1IS03035**

BOOK II

PROSPECTIVE CONTRACT

CO-15049-BITI

TECHNICAL REFRESH OF BALKANS IT INFRASTRUCTURE

PART II - CONTRACT SPECIAL PROVISIONS

TABLE OF CONTENTS

1. INTERPRETATION, DEFINITIONS, AND ACRONYMS

1.1. This Clause supplements Clause 2 (Definitions of Terms and Acronyms) of the NATO Communications and Information Agency (NCI Agency) Contract General Provisions.

1.2. As used throughout this Contract, the following terms shall have the meanings specified below unless otherwise specified in the Contract:

1.2.1. **"**Compliance": strict conformity to the requirements and standards of the Prospective Contract.

1.2.2. "Contractor": the awardee which shall be responsible for the fulfilment of the requirements established in the Prospective Contract.

1.2.3. "Days": calendar days;

1.2.4. "Deliverables": the items, features or services to be delivered by the Contractor at a Milestone Date or at any other stage during the performance of this Contract as listed in Part I (Contract Schedules) and as more particularly described in the Statement of Work (SOW), the System Requirements Specification (SRS), the Technical Solution or any other relevant Contract document;

1.2.5. "NATO Participating Country": any of NATO nation that has undertaken to share the cost of the project, namely, (in alphabetical order): ALBANIA, BELGIUM, BULGARIA, CANADA, CROATIA, CZECH REPUBLIC, DENMARK, ESTONIA, FRANCE, GERMANY, GREECE, HUNGARY, ICELAND, ITALY, LATVIA, LITHUANIA, LUXEMBOURG, MONTENEGRO, THE NETHERLANDS, NORWAY, POLAND, PORTUGAL, ROMANIA, SLOVAKIA, SLOVENIA, SPAIN, TURKEY, THE UNITED KINGDOM and THE UNITED STATES OF AMERICA.

1.2.6. "Purchaser": The Purchaser is defined as the current NCI Agency or its legal successor.

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

2.1. For the purposes of this Contract, the Contract General Provisions are modified, supplemented, or replaced as follows.

2.1.1. Clause 1 (Interpretation, Definitions, And Acronyms) supplements Clause 2 (Definitions of Terms and Acronyms) of the Contract General Provisions.

2.1.2. Clause 7 (Invoices And Payment Terms) supplements and partly replaces Clause 25 (Invoices and Payment) of the Contract General Provisions.

2.1.3. Clause 8 (PRICING OF Task Orders ,CHANGES, AMENDMENTS AND CLAIMS) supplements Clause 19 (Pricing of Changes, Amendments and Claims) of the Contract General Provisions.

2.1.4. Clause 13 (Liquidated Damages) replaces Clauses 38 (Liquidated Damages) of the Contract General Provisions.

2.1.5. Clause 22 (Warranty (Exclusive Of Software)) supplements Clause 27 (Warranty of Work (Exclusive of Software)) of the Contract General Provisions.

2.1.6. Clause 23 (Software Warranty) supplements Clause 31 (Software Warranty) of the Contract General Provisions.

2.1.7. Clause 24 (Security) supplements Clause 11 (Security) of the Contract General Provisions.

3. SCOPE OF WORK

3.1. The Balkans IT Infrastructure capability procured under this Contract is described in the Statement of Work (Part IV) and annexes thereto of the present Contract.

3.2. The Contractor shall supply and install the Technical Refresh of Balkans IT Infrastructure to the requirements in the statement of work (Part IV).

3.3. The Contractor shall provide permanent on-site support and maintenance for the first year as part of the base Contract. Following years of support are included as options.

3.4. The Contractor shall provide operation and maintenance support between System Installation and successful Site Acceptance Testing (SAT).

4. TOTAL SYSTEM PERFORMANCE RESPONSIBILITY AND COMPREHENSION

4.1. The Contractor warrants that it has read, understood, and agreed to implement each and all terms, clauses, specifications (including interfaces), conditions and requirements specified in this Contract and that its signature of the Contract is an acceptance, without reservations, of the said Contract terms within their normal and common meaning.

4.2. The SOW and its Annex System Requirements Specification (SRS) of Part IV of this Contract 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 the Deliverables will meet the performance requirements of the said SOW and SRS.

4.3. The Contractor shall be fully responsible for the integration of all its sub-systems and components, and hereby agrees to make certain that any or all required inspection and Acceptance test procedures are accomplished and are sufficient to meet the specifications.

4.4. The Contractor hereby acknowledges that it has no right to assert against the Purchaser any claims or demands with respect to the aforesaid specifications as are in effect on the date of award of this Contract that are based upon impossibility of performance, defective, inaccurate, impracticable, insufficient or invalid specifications, implied warranties of suitability of such specifications, or otherwise derived from the aforesaid specifications, and hereby waives any claims or demands so based or derived as might otherwise arise.

4.5. Notwithstanding the "Changes" Clause (Clause 16 of the Contract General Provisions) or any other Clause of the Contract, the Contractor hereby agrees that no changes to the aforesaid SOW 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 fixed price as set forth in this Contract or to any extension of the delivery times for the work beyond the period of performance in the Schedule of Supplies and Services.

5. CONTRACT TYPE

5.1. This Clause replaces Clause 7 (Firm Fixed Price Contract) of the Contract General Provisions.

5.2. This is a Firm Fixed Price Contract.

5.3. The prices stated herein are not subject to any adjustment on the basis of the Contractor's cost experience in performing the Contract.

5.4. The total Firm Fixed Price of this Contract is stated on the Signature page of the Contract and is based on the price of Contract Line Item Numbers (CLINs) 1 through 6, unless revised by the Purchaser through formal Amendment to the Contract.

5.5. The Contract also contains Options (CLIN 8 to 14). These Options are not part of the fixed price of the Contract. These options may be exercised by the Purchaser at such time as the corresponding requirements and needs are fully developed under the Contract.

5.6. The Contract also contains the provision for ordering by task order for engineering support and spares at the firm fixed prices detailed in the appropriate tabs in the bid submission at reference in the Contract signature page.

5.7. The Purchaser assumes no liability for costs incurred by the Contractor in excess of the stated Total Price.

6. CONTRACT TERM

6.1. This Contract will begin on the Effective Date specified in the Signature Page and, unless terminated at an earlier date in accordance with other terms and conditions of the Contract or extended by virtue of a formal Contract amendment and will complete at the end of the warranty period i.e. FSA plus twelve months.

7. INVOICES AND PAYMENT TERMS

7.1. This Clause supplements and replaces Clause 25 (Invoices and Payment) of the Contract General Provisions. Specifically, Clauses 7.2 through 7.9 supplements Clause 25 (Invoices and Payment) of the Contract General Provisions while Clause 7.10 and 7.11 replaces Clause 25.5 of the of the Contract General Provisions.

7.2. Payment for supplies and services furnished under this Contract shall be made in the currency quoted by the Contractor for the relevant portion of the Contract.

7.3. Payments shall be made to the Contractor on achievement/delivery and prior written acceptance by the Purchaser of the CLINs as aggregated in the total price CLIN listed in the SSS.

7.4. Notwithstanding the above invoices will be accepted for at a Sub CLIN level for sub-clins 3.1 to 3.11 and 9.1 to 9.6.

7.5. Where Optional CLINs are exercised, payments shall be made when the optional CLINs are accepted and all related updated project documentation has been delivered and accepted. Payments will be made to the Contractor on achievement/delivery and prior written acceptance by the Purchaser of the CLINs as aggregated in the total price CLIN listed in the SSS.

7.6. Task Orders shall be invoiced and paid when the goods and services under the task order are rendered/delivered and accepted.

7.7. Payments for warranty CLIN 5.12, 5.13 and 11.6 shall be made at FSA

7.8. Payments for task orders will be made upon acceptance of the task order goods and services.

7.9. Payment for Project Management activities, CLIN 1 shall be made at the FSA.

7.10. No payment shall be made with respect to undelivered supplies, works not performed; services not rendered and/or incorrectly submitted invoices.

7.11. The Purchaser shall not be liable for any amount resulting from the performance of services or the delivery of equipment outside the scope of this Contract.

7.12. Payment to the Contractor will be made within 45 days of receipt of properly supported and documented invoices and upon acceptance in writing by the Purchaser.

7.13. All invoices shall refer to IFB-CO-15049-BITI and Purchase Order Number (line no, where applicable) [*to be inserted at Contract award*]. There are multiple sources of funding for this contract so it is particularly important that invoices clearly align Clins and Sub-Clins against Purchase Order numbers.

7.14. Invoices shall be properly supported with any necessary reports, certificates, statements, receipts, written evidence of acceptance by the Purchaser and any other required documentation in accordance with the terms of the Contract.

7.15. All invoices shall be sent electronically to:
accountspayable@ncia.nato.int

7.16. No paper invoices will be accepted.

8. PRICING OF TASK ORDERS ,CHANGES, AMENDMENTS AND CLAIMS

8.1. Task Orders for Engineering Support and spares issued under Clause 28 of the Contract Special Provisions will use the firm fixed man-day rates as detailed in the bidders proposal which will not alter for the duration of the Contract.

8.2. This Clause supplements Clause 19 (Pricing of Changes, Amendments and Claims) of the Contract General Provisions.

8.3. Contractor's pricing proposals for Changes, Amendments and Claims shall be priced in accordance with the schedules of forward labour rates and forward prices of material components which were submitted in the Contractor's bid incorporated in the Contract by reference.

8.4. Contractor price quotations and technical proposals for potential Contract changes or modifications shall be provided at no cost to the Purchaser and shall have a minimum validity period of six (6) months from Contractor submission to the Purchaser.

8.5. All cost and pricing information contained in the cost breakdown sheets submitted with the Bidding sheets as part of the Contractor's proposal, to include forward pricing, shall constitute the basis of reference for future negotiations related to any amendments to this Contract.

8.6. If new labour categories, not previously specified in are deemed necessary by the Purchaser during the course of this Contract; the prices for the new labour categories shall be within the range of 10% of rates listed for comparable labour services and skills in the Contract Schedule of Supplies and Services.

8.7. The Contractor shall be bound by the stated labour rates for the whole duration of this Contract.

9. OPTIONS

9.1. CLINs 8 to 14 are options which prices are not included in the firm fixed price mentioned on the signature page of the Contract.

9.2. The Purchaser's liabilities and obligations under this Contract at the time of its signature, and unless a formal Contract Amendment is issued in accordance with the terms of this Clause and Clause 16 (Changes) of the Contract General Provisions, are limited in scope and amount to performance and deliverables associated to CLINs 1 through 7 as described in the SSS and SOW.

9.3. CLINs 8 through 14 are optional and are available for unilateral exercise in writing by the Purchaser at any time and in any combination from Effective Date of Contract until the FSA plus 12 months.

9.4. The Contractor understands that there are no obligations under this Contract for the Purchaser to exercise any of the Options and that the Purchaser bears no liability should it decide not to exercise them (either totally or partially).

9.5. Further, the Purchaser reserves the right to order another Contractor (or the same), to perform the tasks described in the Options of the current Contract through a new Contract with other conditions.

10. SCHEDULE OF SITE INSTALLATIONS

10.1. The sequential order of any performance to be rendered at any sites listed at Part IV, the Statement of Work, Section 3.2 may be changed by the Purchaser on the basis of sites availability at no cost to the Purchaser provided that the notification of change is provided to the Contractor at least thirty (30) days prior to the scheduled date of site activity as illustrated in the most current Purchaser Approved Project Master Schedule.

10.2. Any change will be formally notified in writing by the Purchaser

11. CONTRACT ADMINISTRATION

11.1. The Purchaser is the NATO Communications and Information Agency (NCI Agency). The Purchaser is the Point of Contact for all Contractual and Technical issues.

11.2. The Contractor shall accept Contract modifications only in writing from the Purchaser's Contracting Authority.

11.3. 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 its 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.

11.4. All notices and communications between the Contractor and the Purchaser shall be written in English and may be personally delivered, mailed, or emailed at the following address:

11.4.1. Contractor Address:

Contractor:	Name:
	Attn:
	Title
	Address:
	Telephone:
	E-mail:

11.4.2. Purchaser Address:

NCI Agency:	Boulevard Leopold III
	B-1110 Brussels, Belgium
	Acquisition Directorate
	Attn: Mr. Graham Hindle (Senior Contracting Officer)
	Telephone: +32 2 707 8857
	E-mail: graham.hindle@ncia.nato.int

11.4.3. Such address as the Purchaser may from time to time designate in writing.

11.5. All contractual documentation (e.g. change proposals, invoices, etc.) shall be delivered electronically.

12. TECHNICAL DIRECTION

12.1. For the direct official control and coordination of requirements, the Purchaser designates the Project Manager specified below as the staff element that has the authority to coordinate, monitor, and control Contractor's performance under this Contract:

NCI Agency:	CES service Line
	SHAPE
	Casteau ,Belgium
	Attn: Andrei Mihai-Alexandru
	Telephone: +32 23605620
	E-mail: Mihai-Alexandru.Andrei@ncia.nato.int

12.2. The Purchaser may designate other staff elements as technical focal points for the execution of specific tasks and who will provide the Contractor with instruction and guidance, within the general scope of work, in performance of their duties and working schedule.

12.3. Notwithstanding the prescriptions of this Clause, neither the Purchaser's Project Manager, 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 work that is inconsistent with 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 under the authority of the Contract shall render any subsequent claim null and void.

12.4. Upon receipt of such notification above, the Purchaser's Contracting Authority will:

12.4.1. confirm the effort requested is within scope, or

12.4.2. confirm that the instructions received constitute a change and request a quotation for a modification of scope and/or price, or

12.4.3. rescind the instructions.

13. LIQUIDATED DAMAGES

13.1. This Clause replaces Clause 38 (Liquidated Damages) of the Contract General Provisions.

13.2. If the Contractor;

13.2.1.   Fails to meet the delivery schedule of the supplies and services or any applicable milestones specified in the SSS of the Contract, or any extension thereof, or

13.2.2.   Fails to obtain acceptance of the delivered Work as specified in the Contract, or, if no time for acceptance is specified in the Contract within a reasonable time after work is delivered;

13.3. The actual damage to the Purchaser for the delay will be difficult or impossible to determine. Therefore, in lieu of actual damages the Contractor shall pay to the Purchaser, for each day of delinquency in achieving the deadline or milestone, fixed and agreed liquidated damages of 0.2% (zero point two percent) per day of the associated payment set forth in Section II of the Contract SSS, as aggregated to the Total price for each CLIN.

13.4. In addition to the liquidated damages referred to above, the Purchaser shall have the possibility of terminating this Contract in whole or in part, as provided in Clause 39 (Termination for Default) of the Contract General Provisions. In the event of such termination, the Contractor shall be liable to pay the excess costs provided in Clause 39.5 of the Contract General Provisions.

13.5. The Contractor shall not be charged with liquidated damages when the delay arises out of causes beyond the control and without the fault or negligence of the Contractor as defined in Clause 39.6 (Termination for Default) of the Contract General Provisions. In such event, subject to the provisions of Clause 41 (Disputes) of the Contract General Provisions, the Purchaser shall extend the time for performance of the Contract when in his judgement the findings of the fact justify an extension.

13.6. Liquidated damages shall be payable from the first day of delinquency and shall accrue at the rate specified in Clause 13.3 above to 15% (fifteen percent) of the value of each aggregated total CLIN Price , not to exceed 10% (ten percent) of the total value of the Contract. These liquidated damages shall accrue automatically and without any further notice being required.

13.7. The rights and remedies of the Purchaser under this Clause are in addition to any other rights and remedies provided by law or under this Contract.

13.8. The Contractor acknowledges that any sums payable under this clause are in the nature of liquidated damages and not penalties, and represent a reasonable estimate of fair compensation for the losses that may be reasonably anticipated from such failure to perform obligations.

13.9. The amount of Liquidated Damages due by the Contractor shall be recovered by the Purchaser in the following order of priority:

13.10. By deducting such damages from the amounts due to the Contractor against the Contractor's invoices.

13.11. By drawing from the performance guarantee.

13.12. By reclaiming such damages through appropriate legal remedies.

14. COTS PRODUCTS REPLACEMENT

14.1. If any COTS products specified in the Contract are upgraded or discontinued by their original providers for commercial or technological reasons, the Contractor shall propose their substitution by the new versions that are intended as market replacement of the original products. The proposed items shall provide an equivalent or enhanced performance without a price or life-cycle support cost increase and the Contractor shall be responsible for the installation, integration and transition of data and information to the new version.

14.2. The Contractor shall provide price and performance data to support 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 Clause.

15. RISK OF LOSS OR DAMAGE

15.1. This Clause supplements Clause 24 (Ownership and Title) of the Contract General Provisions.

15.2. Risk of loss or damage to Deliverables covered by this Contract shall remain with the Contractor until, and shall pass to the Purchaser upon Acceptance by the Purchaser or receipt of the supplies by the Purchaser at the destination specified in the Contract, whichever is the later.

15.3. The risk of loss or damage to supplies which fail to conform to the requirements of the Contract shall remain with the Contractor until cure and Acceptance.

15.4. The Contractor shall not be liable for the loss of or damage to supplies caused by the negligence of officers, agents or employees of the Purchaser acting within the scope of their employment.

16. INDEPENDENT CONTRACTOR

16.1. The Contractor shall provide and pay, as required, qualified personnel as needed for the proper performance of the services required under this Contract; it shall strictly comply with all Host Nation Labour Laws, tariffs and social security and other regulations applicable to the employment of its personnel. The Personnel provided by the Contractor are at all times employees of the Contractor and not the Purchaser. In no case shall the 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.

16.2. 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 employees, agents, or representatives are not eligible for any diplomatic privileges nor NATO employee benefits.

16.3. The Contractor shall inform its employees, agents, and representatives under this Contract of the terms of the Contract and the conditions of the working environment.

16.4. 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.

17. KEY PERSONNEL

17.1. Contractor's employees or agents specifically identified in Annex A below shall be considered as key personnel for the performance of the Contract. Without prejudice to other applicable stipulations of the Contract, key personnel shall be subject to the terms and conditions specified below.

17.2. A key personnel assigned to this Contract shall remain working on the Contract for as long as required by the terms of the present Contract unless the Purchaser agrees to a replacement who is equal or better qualified. Such a replacement will be in accordance with paragraph 17.5 and is without extra cost to the Purchaser.

17.3. The Contractor shall guarantee that suitable backup personnel will be available to promptly remedy situations of key personnel non-availability that may endanger the performance of services or deliverables set in the Contract.

17.4. The Purchaser reserves the right to reject a Contractor's staff member after prior acceptance if the Purchaser determines during Contract performance that the individual is not providing the required level of support. The Purchaser will inform the Contractor in writing in case such a decision is taken, and the Contractor shall propose a replacement within fifteen (15) days after the Purchaser's written notification.

17.5. For the Key Personnel Project Manager, Technical Lead and ILS Manager, the Purchaser shall approve any replacement or additional key personnel according to the following procedure:

17.5.1. The Contractor shall provide the name(s) and qualifications statement(s) of a nominee(s) for review by the Purchaser a least twenty (20) days before the intended date of replacement or the date when the nominee(s) is/are required to start work under the Contract. If the Purchaser accepts the nominations, this acceptance will be notified in writing to the Contractor, who will be authorized to assign the nominated personnel to the Contract on the date(s) established in the stated notification.

17.5.2. If the Purchaser considers a nominee or nominees to be inappropriate for the required services, the Contractor will be so notified and shall have not more than ten (10) days to submit alternate nominees.

17.6. If the Contractor fails to provide in due time a compliant candidate, the Purchaser may terminate this Contract in whole or in part as provided in the first paragraph of Clause 39 (Termination For Default) of the Contract General Provisions, and in that event the Contractor shall be liable, in addition to the excess costs provided in second paragraph of the "Termination For Default" clause, for such liquidated damages accruing until such time as the Purchaser may reasonably obtain delivery or performance of similar services.

17.7. The delay stated above shall be counted from the day the Purchaser notifies the Contractor, in accordance with 13 above, that the alternate nominees are considered to be non-compliant or inappropriate for the required services according to the requirements of the Contract.

18. INTELLECTUAL PROPERTY

18.1. This Clause supplements Clause 30 (Intellectual Property) of the Contract General Provisions.

18.2. The Contractor intends to use the Background IPR stated in Annex C and Annex D hereto for the purpose of carrying out work pursuant to this Contract.

18.3. The Contractor warrants, undertakes, and represents that any derivative product created under this Contract from the stated Background IPR shall be considered as Foreground IPR and, therefore, shall be governed by the terms and conditions specified in Clause 30.3 (Foreground IPR) of the Contract General Provisions.

18.4. The Purchaser shall consider open source solutions alongside proprietary ones in developments provided that such solutions are fully compliant with the requirements of this Contract and, particularly, Clauses 9 (Participating Countries) and 30 (Intellectual Property) of the Contract General Provisions. The Contractor shall disclose, in advance, the open source licence associated with the contemplated open source solution. The Purchaser reserves the right to refuse the incorporation of open source solutions that are deemed inadequate for incorporation in a NATO application.

18.5. Any use of Contractor Background IPR for the purpose of carrying out work pursuant to the Contract shall, subject to any obligation on the part of the Contractor to make payments to any third party in respect of IPR which is licensed from such third party, be free of any charge to Purchaser. The Contractor hereby grants to the Purchaser a non-exclusive, royalty-free and irrevocable licence throughout NATO, NATO operations (including out of area operations) and its member nations to use and authorise others to use any Contractor Background IPR for the purpose of exploiting or otherwise using the Foreground IPR for any defence purpose.

18.6. In addition, the Purchaser shall have the right to further re-transfer this software to NATO companies eligible for NATO procurements, subject to an appropriate license agreement.

18.7. Any use of Contractor and Third Party Background IPR as stated in Annex C and Annex D and unless specifically applicable to COTS items, is not limited to the number of users or the number of licenses required by the Contract for use of the system. With the exception of COTS items, the Purchaser reserves the right to use or authorise NATO members to use the Background IPR as stated in Annex C and Annex D or any number of users and number of licenses as required, at no additional cost to the Purchaser.

18.8. All Software, except COTS, delivered under this Contract shall not be marked with corporate logos, proprietary information or contain warnings limiting the rights to use or reproduction nor shall those markings be included in the operating and/or maintenance manuals or instructions accompanying such software.

18.9. Unless otherwise authorised by the terms of this Contract, the Intellectual Property Rights to all design documentation and related system operating software shall reside in NATO member countries, and no license fees or royalty charges shall be paid by the Contractor to firms, individuals or governments other than within the

19. NATO MEMBER COMMUNITY.CONFIDENTIALITY AND NON-DISCLOSURE

19.1. For purposes of this clause, "Confidential Information" shall include all information pertaining to any part of this Contract or any program related to this Contract that is not marked "Non-Confidential".

19.2. Confidential Information does not include information that is: (a) publicly known at the time of disclosure or subsequently becomes publicly known through no fault of the Contractor; (b) discovered or created by the Contractor before disclosure by the Purchaser; (c) learned by the Contractor through legitimate means other than from the Purchaser or its representatives; or (d) is disclosed by the Contractor with the Purchaser's prior written approval.

19.3. Without prejudice to other obligations imposed by NATO Security regulations, the Contractor shall hold and maintain the Confidential Information in strictest confidence for the sole and exclusive benefit of the Purchaser. The Contractor shall carefully restrict access to Confidential Information to employees, sub-Contractors and third parties as is reasonably required and shall require those persons to sign nondisclosure restrictions at least as protective as those in this Contract. The Contractor shall not, without prior written approval of the Purchaser, use for the Contractor's own benefit, publish, copy, or otherwise disclose to others, or permit the use by others for their benefit or to the detriment of the Purchaser, any Confidential Information. The Contractor shall return to the Purchaser any and all records, notes, and other written, printed, or tangible materials in its possession pertaining to Confidential Information immediately if the Purchaser requests it in writing.

19.4. The provisions of this clause and the associated Contractor's duties shall survive the termination of this Contract and remain in effect until the Purchaser sends the Contractor written notice releasing the Contractor from the obligations imposed by this clause, or for a further period of three (3) years after FSA. whichever occurs first, and without prejudice to other obligations imposed by applicable NATO Security regulations.

19.5. The Contractor shall include the substance of the language of this clause in any subcontract/Contract issued for the purpose of the fulfilment of the obligations Contracted under this Contract regardless of the legal nature of the entity subscribing such subcontract. Additionally, all Contractor Key Personnel (per Annex A) assigned under this Contract shall be required to sign the Non-Disclosure Certificate at Annex B.

19.6. The Contractor agrees that compliance with the obligations imposed by the terms of this clause is of the essence and that failure to abide to these terms shall constitute sufficient grounds for the termination of the Contract for default.

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.

20.2. 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.

20.3. The Contractor is responsible for maintaining and providing up-to-date conflict of interest information to the Contracting Officer. If, after award of this Contract or task order 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 Contracting Officer as set forth below.

20.4. If, after award of this Contract herein, the Purchaser discovers a conflict of interest with respect to this Contract or task order, 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 Clause 39 (Termination for Default) of the Contract General Provisions.

20.5. The Contractor's notice called for in paragraph 20.2 hall 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 Contracting Officer in analysing the situation. Any changes to the Contractor's Conflict of Interest Mitigation Plan, if any is incorporated in the Contract, should be also detailed.

20.6. The Contractor has the responsibility of formulating and forwarding a proposed mitigation plan to the Contracting Officer, for review and consideration. This responsibility arises when the Contractor first learns of an actual, apparent, or potential conflict of interest.

20.7. If the Purchaser in its 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 Contracting Officer will direct a course of action to the Contractor designed to avoid, neutralize, or mitigate the conflict of interest.

20.8. 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 Contracting Officer has the discretion to terminate the Contract for default or alternatively refrain from exercising any further Option or Work Package under the Contract.

20.9. 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. CARE AND DILIGENCE OF PROPERTY

21.1. The Contractor shall use reasonable care to avoid damaging building, equipment, and work site. If the Contractor damages any such building, equipment, or worksite, they shall repair the damage as directed by the Purchaser and at no expenses to the Purchaser. If they fail or refuse to make such repair or replacement, the Contractor shall be liable for the cost thereof, which may be deducted from the Contract price.

21.2. The Purchaser shall exercise due care and diligence for Contractor's equipment, tools and materials on site premises. The Purchaser will not assume any liability except for gross negligence and wilful misconduct. The Purchaser will, however, not assume any liability except for gross negligence and wilful misconduct on the part of the Purchaser's personnel or agents.

21.3. The Contractor shall, at all times, keep the site area, including storage areas used by the Contractor, free from accumulations of waste. On completion of all work the Contractor is to leave the site area and its surroundings in a clean and neat condition.

22. WARRANTY (EXCLUSIVE OF SOFTWARE)

22.1. This Clause supplements Clause 27 of the Contract General Provisions.

22.2. The Warranty Period for any Hardware deliverables under this Contract shall be the specific warranty periods established in the section 5.14 of the SOW for individual deliverables.

22.3. The Warranty Period shall start from the time of their formal acceptance after delivery.

22.4. Throughout the Warranty Period the Contractor shall make good any:

22.4.1. Defects in the deliverables;

22.4.2. Breach of warranties specified in Clause 27 (Warranty of Work) of the Contract General Provisions; and

22.4.3. Breach of any other express or implied warranties that may be applicable;

22.4.4. Arising out of or in connection with the Contractor's failure to perform its obligations under this Contract (herein after collectively referred to as "Warranty Period Incidents") in accordance with this Clause 30 and Clause 27 (Warranty of Work) of the Contract General Provisions.

22.5. The Contractor shall correct all Warranty Period Incidents arising during the Warranty Period without any cost to the Purchaser.

22.6. If the Contractor fails to correct any Warranty Period Incidents within the timeframe specified in Clause 27 (Warranty of Work) of the Contract General Provisions or section 5.14 of the SOW for the type of incident concerned, or if no specific timeframe has been established in the referred Clause or in the SOW for the type of incident concerned, within 30 working days of notification, the Purchaser may on ten (10) working days written notice:

22.6.1. Correct the Warranty Period Incident or employ a third party to correct it; and

22.6.2. Deduct from the prices to be paid, draw from the performance guarantee, or recover as a debt due from the Contractor, all reasonable costs in so doing.

22.7. The Contractor shall deploy all such additional resources as are reasonably required to remedy any Warranty Period Incident as efficiently and quickly as possible.

22.8. If replacement parts are fitted by the Contractor as part of the warranty the parts removed shall become the Contractor's property unless required by the Purchaser at the Purchaser's discretion. Notwithstanding that, faulty hard disks removed from NATO SECRT equipment shall not be returned to the Contractor but destroyed by the NATO site personnel in accordance with applicable NATO security regulations.

22.9. Notwithstanding Clause 27.6 of the Contract General Provisions, if prior agreed upon by the Purchaser, the Contractor has the possibility to repair the failed component instead of providing a new replacement.

23. SOFTWARE WARRANTY

23.1. The Clause supplements Clause 31 of the Contract General Provisions.

23.2. For each Software delivered under this Contract, the Contractor warranties stated in paragraph 31.1 of the Contract General Provisions shall extend to all defects discovered within twelve (12) months from Final System Acceptance (FSA) declared in writing by the Purchaser's Contracting Authority.

24. SECURITY

24.1. This Clause supplements Clause 11 (Security) of the Contract General Provisions.

24.2. Contractor's personnel working at the Purchaser's facilities shall possess a valid security clearance up to the level of "NATO SECRET" so as to be able to have unescorted access to classified security areas where work will be performed in accordance with the SOW Section 4 regarding the submission of personal details security clearance data of Contractor's personnel.

24.3. Without prejudice to other Purchaser's rights, failure to comply with the requirements stated in Clause 24.2 above shall constitute grounds for Contract termination under the Clause 39 "Termination For Default" of the Contract General Provisions and entitle the Purchaser to collect liquidated damages in case of delay as specified in Clause 13 above and Clause 38 of the Contract General Provisions.

24.4. Notwithstanding paragraph 24.3 above if the Contractor fails to comply with the requirement stated in paragraph 24.2 of this Clause, the Purchaser may opt for providing escorts to allow Contractor's personnel to perform work in a classified area without being in possession of the prerequisite security clearance. In such cases, the Contractor agrees that the Purchaser shall be entitled to collect an amount equivalent to €800 per escort assigned to supervise Contractor's personnel and per day (7.6 hours during normal business hours) of escorting. This compensation shall be collected through the same mechanisms established in Clause 13 above for the case of liquidated damages.

24.5. Contractor's staff members shall hold a valid passport and are required to maintain its validity for the duration of the Contract.

24.6. The Contractor shall note that there are restrictions regarding the carriage and use of electronic devices (e.g. laptops) in NATO designated Security Areas. The Contractor shall be responsible for satisfying and obtaining from the appropriate NCI Agency Authorities the necessary clearance to introduce and utilize any such equipment into the facility.

25. SUPPLEMENTAL AGREEMENTS

25.1. The Contractor has submitted all relevant draft supplemental agreement(s), documents and permissions prior to Contract award, the execution of which by the Purchaser is/are required by National Law or regulation. If any supplemental agreements, documents and permissions are introduced after Contract award, and it is determined that the Contractor failed to disclose the requirement for the execution of such agreement from the Purchaser prior to Contract signature, the Purchaser may terminate this Contract for Default, in accordance with the Clause 39 (Termination For Default) of the Contract General Provisions.

25.2. Supplemental agreement(s), documents and permissions, the execution of which by the Purchaser is/are required by National Law or regulation and that have been identified by the Contractor prior to the signature of this Contract, but have not yet been finalised and issued by the appropriate governmental authority, are subject to review by the Purchaser. If such supplemental agreement(s), documents and permissions are contrary to cardinal conditions of the signed Contract between the Parties, and the Purchaser and the appropriate governmental authority cannot reach a mutual satisfactory resolution of the contradictions, the Purchaser reserves the right to terminate this Contract and the Parties agree that in such case the Parties mutually release each other from claim for damages and costs of any kind, and any payments received by the Contractor from the Purchaser will be refunded to the Purchaser by the Contractor.

26. THIRD PARTIES

26.1. The Contractor shall be aware of the possible need to work closely with and participate in meetings and reviews to be held jointly with third parties who perform work which contributes to, or is strongly related to, work conducted under this Project.

26.2. The Contractor shall have no rights to raise claims, ask for delays, or interrupt the performance of the Contract on the basis of, or in connection with, its responsibilities to work/co-ordinate with third parties running work on or related to this Project.

26.3. The above described effort is already included in the Total Firm Fixed price of this Contract and the Contractor shall have no recourse for additional costs or delays in the performance of this Contract on the basis of the above described effort.

26.4. The Purchaser reserves the right to make technical documentation, even in draft version, delivered under this Project available to any third parties.

26.5. This documentation because of the nature of the performance under the Contract will be subject to changes and revisions. The frequency and dynamics of these changes and revisions would make it unfeasible to ratify a new version of the documentation via a formal Contract amendment at the time it is produced and approved by the Purchaser. Consequently, during the course of formal reviews the Purchaser Contracting Authority will evaluate any changed documentation and subject to the terms of the Contract validate its adequacy and, at its sole discretion provide for its approval in writing indicating which updated documentation is approved.

26.6. Subject to the exception noted in paragraph 26.7 below, any formally Purchaser approved documentation shall be deemed as made part of the Contract and shall replace any existing previous version.

26.7. The Purchaser is under no obligation to approve any proposed revised document except as in accordance with the terms of the present Contract. Rejection of any proposed changes shall not discharge the Contractor, in whole or in part, of its responsibility for the performance under the Contract.

26.8. Nothing in this Clause is to be construed as a waiver to any other obligation of the Contractor under the Contract.

27. ACCEPTANCE OF DESIGN DOCUMENTATION

27.1. This Clause supplement Clause 22 of the Contract General Provisions.

27.2. The acceptance by the Purchaser of the Contractor's design documentation required by this Contract signifies that the documents delivered appear logical and consistent. The acceptance does not constitute an endorsement or approval of the design by the Purchaser and does not relieve the Contractor of the obligation to meet the performance requirements of this Contract in the event that the design eventually proves to be non-compliant at the testing.

28. TASK ORDERS AND ORDERING RELATED TO ENGINEERING SUPPORT AND PROVISION OF SPARES

28.1. Task Orders will be issued, in writing, by the Purchaser and signed by the Purchaser's Contracting Authority. Orders are instruments to initiate Contractor activities and obligate funding to the Contract. Orders may be issued for equipment or services. Task Orders will contain the following information:

28.1.1. Task Order Number

28.1.2. Prospective Effective Date of the Order

28.1.3. Statement of Work.

28.1.4. Schedule and, place of delivery and performance, local point of contact

28.1.5. Travel Requirements

28.1.6. A schedule of supplies and services detailing Total quantities of equipment or services required

28.1.7. Total Monetary Value of the Order

28.1.8. Funding Authority

28.1.9. Signature of Purchaser Contracting Authority

28.2. Within 5 working the Contractor will provide a quotation for the Task with full supporting data to enable evaluation.

28.3. Within 5 working days the Purchaser will either initiate negotiations on the Task Order or issue a Final firm fixed price Task Order

28.4. If the Parties fail to agree on a final version of the price and statement of work, the Purchaser may unilaterally issue a Task Order containing a fair and reasonable price and a Statement of Work, and the Contractor shall complete such Task Order. The Contractor may appeal the decision of the Purchaser on the basis of Clause 41 of the Contract General Provisions, but must continue the work on the Task Order to the best of his ability while such appeal or dispute is adjudicated.

28.5. Orders may be issued from time to time and there are no limitations on the number of orders that can be issued within the maxima specified.

ANNEX A.   KEY PERSONNEL

The following Key Personnel shall be subject to the stipulations contained in Clause 17 (Key Personnel) of the Contract Special Provisions for the period of designation indicated below:

Position	SOW Reference(s)	Labour Category	Name	Designation Period
Project Manager	Annex C	*To be completed by the Contractor*	*To be completed by the Contractor*	EDC through End of Contract
Technical Lead	Annex C	*To be completed by the Contractor*	*To be completed by the Contractor*	EDC through End of Contract
Technical Writer / Author ILS Manager	Annex C	*To be completed by the Contractor*	*To be completed by the Contractor*	EDC through End of Contract
VMware Certified Professional (VCP)	Annex C	*To be completed by the Contractor*	*To be completed by the Contractor*	EDC through End of Contract

EDC: Effective Date of Contract

ANNEX B.   NON DISCLOSURE DECLARATION

To be signed by all Contractor personnel assigned under Contract CO-14685-UAS.

I UNDERSTAND:

That I must preserve the security of all information which comes to my knowledge as a result of the Contract with the NCI Agency stated above and that I undertake to comply with all relevant security regulations.

That I must not divulge to any unauthorised person even within my own company, any classified/commercial-in confidence information gained by me as a result of my Contract with the NCI Agency, unless prior permission for such disclosure has been granted by the General Manager of the NCI Agency.

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 official duties for the NCI Agency.

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 official duties, save such as I have been duly authorised to retain.

That if I violate prescribed security practices either intentionally or accidentally, my Contract shall be immediately terminated.

That the provisions of the above Declaration apply not only during the period of the referred Contract with the NCI Agency, but also after the stated 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 unauthorised hands.

That I commit to fulfil my obligations for the period of performance mentioned in the Contract Schedules and the Special Provisions of the Contract referred above (including the optional periods) unless major events beyond my reasonable control happen.

That should I decide for personal interest to leave the position, I will do my best effort to fulfil my obligations until the Company that is currently employing me has provided NATO with an acceptable suitable substitute (and in accordance with Clause 17 of the Contract Special Provisions (for Key Personnel)).

_____   _____
Full name (in block capitals)   Date

_____
Signature

NATO UNCLASSIFIED

ANNEX C.   **CONTRACTOR BACKGROUND IPR**

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

Item	Description / IP Ownership	Indicate if COTS

b. The Contractor represents that it has and will continue to have, for the duration of this Contract, all necessary rights in and to the IPR specified above necessary to meet the Contractor's obligations under the Contract.

c. The Contractor Background IPR stated above complies with the terms specified in Clause **Error! Reference source not found.** of the Contract Special Provisions and shall be licensed to the Purchaser according to the terms and conditions specified therein and in Clause 30 of the Contract General Provisions.

ANNEX D.   SUBCONTRACTOR AND THIRD PARTY IPR

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

Item	Description / IP Ownership	Indicate if COTS

b. The Contractor represents that it has and will continue to have, for the duration of this Contract, all necessary rights in and to the IPR specified above necessary to meet the Contractor's obligations under the Contract.

c. The Subcontractor and Third Party Background IPR stated above complies with the terms specified in Clause 18 of the Contract Special Provisions and shall be licensed to the Purchaser according to the terms and conditions specified therein and in Clause 30 of the Contract General Provisions.

END OF CONTRACT SPECIAL PROVISIONS

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

IFB-CO-15049-BITI

Technical Refresh of Balkans IT Infrastructure

Project Serial No.: 2017/1CM03034 / 2019/1IS03035

BOOK II – PART III

CONTRACT GENERAL PROVISIONS

INDEX OF CLAUSES

1. ORDER OF PRECEDENCE

In the event of any inconsistency in language, terms or conditions of the various parts of this Contract, precedence will be given in the following order:

1.1.   The Signature Page;

1.2.   The Contract Schedules, Part I;

1.3.   The Contract Special Provisions, Part II;

1.4.   The Contract General Provisions, Part III;

1.5.   The Statement of Work, Part IV of the Contract;

1.6.   The Annexes to the Statement of Work.

2. DEFINITIONS OF TERMS AND ACRONYMS

2.1.   Assembly

An item forming a portion of equipment that can be provisioned and replaced as an entity and which normally incorporates replaceable parts or groups of parts.

2.2.   Acceptance

Acceptance is the act by which the Contracting Authority recognises in writing that the delivered Work meets the Contract requirements.

2.3.   Claims

A written demand or written assertion by one of the Parties seeking, as a matter of right, the payment of money in a sum certain, the adjustment or interpretation of Contract terms, or other relief arising under or in relation to this Contract.

2.4.   Clause

A provision of the Special or General Provisions of this Contract.

2.5.   Codification Authority

The National Codification Bureau (NCB) or authorised agency of the country in which the Work is produced.

2.6.   Commercial Off-the-Shelf Items (COTS)

The term "Commercially Off-the-Shelf Item (COTS)" means any item that:

- is a commercial item, customarily used by the general public, that has been sold, leased, or licensed to the general public or has been offered for sale, lease

or license to the general public;

- is sold in substantial quantities in the commercial marketplace; and
- is offered to the Purchaser, under a contract or subcontract at any tier, without modification, in the same form in which it is sold in the commercial marketplace.

2.7. Component

A part or combination of parts, having a specific function, which can be installed or replaced only as an entity.

2.8. Contractor Background IPR

Any IPR owned by the Contractor or licensed by a third party to the Contractor which is not created in relation to or as the result of work undertaken for any purpose contemplated by the Contract and which is needed for the performance of the Contract or for the exploitation of Foreground IPR.

2.9. Correction

Elimination of a Defect.

2.10. Contract

The agreement concluded between the Purchaser and Contractor, duly signed by both contracting parties. The Contract includes the documents referred to in Clause 1 (Order of Preference).

2.11. Contracting Authority

The General Manager of the NCI Agency, the Director of Acquisition, the Chief of Contracts of the NCI Agency or the authorised representatives of the Chief of Contracts of the NCI Agency.

2.12. Contractor

The person or legal entity from a Participating Country which has signed this Contract and is a Party thereto.

2.13. Day

A calendar day

2.14. Defect

Any condition or characteristic in any Work furnished by the Contractor under the Contract that is not in compliance with the requirements of the Contract.

2.15.   Deliverable

Any and all goods (including movable and immovable goods) to be delivered pursuant to the terms of this Contract including, without limitation, building, raw materials, components, intermediate Assemblies, Parts, end products, equipment, documentation, data, software.

2.16.   Design Defect

Defect attributable to incompatibility, unsuitability or erroneous application of theory, drawings or formulae.

2.17.   Effective Date of Contract (or "EDC")

The date upon which this Contract is deemed to start. Unless otherwise specified, a Contract enters into force on the date of the last signature of the Contract by the Parties.

2.18.   Failed Component

A part or combination of parts, having a specific function, which can be installed or replaced only as an entity which ceases to perform in a manner consistent with its intended use and specifications of the Contract.

2.19.   Foreground IPR

Any IPR created by the Contractor or any subcontractor of the Contractor in the course of or as the result of work undertaken for any purpose contemplated by the Contract.

2.20.   IPR

Any intellectual property rights of any qualification irrespective of their stage of development or finalisation, including but not limited to patents, trademarks (registered of not), designs and models (registered or not) and applications for the same, copyright (including on computer software), rights in databases, know-how, confidential information and rights in records (whether or not stored on computer) which includes technical and other data and documents.

2.21.   Manufacturing Defect

Defect attributable to improper manufacturing processes, testing or quality control procedures.

2.22.   NATO

The North Atlantic Treaty Organisation. For the purpose of this contract, the term NATO includes NATO bodies, agencies, NATO nations and non-NATO nations to the extent that non-NATO nations are engaged in NATO Purposes.

2.23.   NCI AGENCY (NCIA)

The NATO Communications and Information Agency. The NCIA is part of the NCIO. The General Manager of the Agency is authorised to enter into contracts on behalf of the NCI Organisation.

2.24.   NATO COMMUNICATIONS AND INFORMATION ORGANISATION (NCIO)

The NATO Communications and Information Organisation. The NCI Organisation constitutes an integral part of the North Atlantic Treaty Organisation (NATO) The NCI Organisation is the legal personality from whence flows the authority of its agent, the NCI Agency, to enter into contracts.

2.25.   NATO Purposes

Activities conducted by or on behalf of NATO to promote the common defence and common interests of NATO, such as, among others, NATO operations, NATO procurement, NATO training and NATO maintenance.

2.26.   Part

An item of an assembly or sub-assembly, which is not normally further broken down.

2.27.   Participating Country

A NATO member country that participates in financing the effort.

2.28.   Parties

The Contracting Parties to this Contract, i.e., the Purchaser and the Contractor.

2.29.   Purchaser

The NCI Organisation, as represented by the General Manager, NCI Agency. The Purchaser is the legal entity who awards and administers the Contract on behalf of NATO and stands as one of the Contracting Parties.

2.30.   Purchaser Background IPR

Any IPR owned by the Purchaser as of the Effective Date of Contract and which has been developed by, assigned to or licensed to the Purchaser prior to the Effective Date of Contract.

2.31.   Purchaser Furnished Property

Any item of equipment, material, document, technical data, information and Software or any other item of property furnished by the Purchaser to the Contractor required or useful for the performance of the Contract. The Purchaser Furnished Property, if

any, shall be detailed in the Contract.

2.32. Software (Computer Software)

A computer program comprising a series of instructions, rules, routines regardless of the media in which it is recorded, that allows or cause a computer to perform a specific operation or a series of operations.

2.33. Software Defect

Any condition or characteristic of Software that does not conform with the requirements of the Contract.

2.34. Sub-Assembly

A portion of an Assembly consisting of two or more parts that can be provisioned and replaced as an entity. The definition purposely excludes Components and/or Parts.

2.35. Sub-contract

Any agreement made by the Contractor with any third party in order to fulfil any part of the obligations under this Contract. Sub-contracts may be in any legal binding form, *e.g.*, contract, purchase order, etc.

2.36. Sub-contractor

Any person or legal entity directly or indirectly under Sub-contract to the Contractor in performance of this Contract.

2.37. Third Party IPR

Any IPR owned by a third party not being the Purchaser or the Contractor or its Subcontractor, which is needed for the performance of the Contract or for the exploitation of Foreground IPR. This includes, for example, third party software, including open source software.

2.38. Work

Any deliverable, project design, labour or any service or any other activity to be performed by the Contractor under the terms of this Contract.

3. <u>AUTHORITY</u>

3.1. All binding contractual instruments and changes, including amendments, additions or deletions, as well as interpretation of and instructions issued pursuant to this Contract shall be valid only when issued in writing by the Purchaser and signed by the

Contracting Authority only.

3.2.   No direction which may be received from any person employed by the Purchaser or a third party shall be considered as grounds for deviation from any of the terms, conditions, specifications or requirements of this Contract except as such direction may be contained in an authorised amendment to this Contract or instruction duly issued and executed by the Contracting Authority. Constructive change may not be invoked by the Contractor as a basis for Claims under this Contract.

3.3.   The entire agreement between the Parties is contained in this Contract and is not affected by any oral understanding or representation, whether made previously to or subsequently to this Contract.

3.4.   Personal notes, signed minutes of meetings, comments to delivered documentation and letters, e-mails and informal messages from project or other Purchaser staff which may indicate the intent and willingness to make changes to the Contract, do not implement the change to the Contract and shall not be used as a basis for claiming change to the Contract by the Contractor.

4.   APPROVAL AND ACCEPTANCE OF CONTRACT TERMS

4.1.   By his signature of the Contract, the Contractor certifies that he has read and unreservedly accepts and approves of all terms and conditions, specifications, plans, drawings and other documents which form part of and/or are relevant to the Contract. The Contractor further agrees that the terms of the Contract take precedence over any proposals or prior commitments made by the Contractor in order to secure the Contract. Contractor also hereby waives any and all rights to invoke any of the Contractor's general and special terms and conditions of sales and/or supply.

5.   LANGUAGE

5.1.   All written correspondence, reports, documentation and text of drawings delivered to the Purchaser by the Contractor shall be in the English language.

6.   AUTHORISATION TO PERFORM/CONFORMANCE TO NATIONAL LAWS AND REGULATIONS

6.1.   The Contractor warrants that he and his Sub-contractors are duly authorised to operate and do business in the country or countries in which this Contract is to be performed and that he and his Sub-contractors have obtained or will obtain all necessary licences and permits required in connection with the Contract. No claim for additional monies with respect to any costs or delay to obtain the authorisations to perform shall be made by the Contractor.

6.2.   The Contractor acknowledges that he and his Sub-contractors are responsible during the performance of this Contract for ascertaining and complying with all applicable laws and regulations, including without limitation: labour standards, environmental laws, health and safety regulations and export controls laws and regulations in effect at the time of Contract signature or scheduled to go into effect during Contract

performance. Failure to fully ascertain and comply with such laws, regulations or standards shall not be the basis for claims for change to the specifications, terms, conditions or monetary value of this Contract.

7.   FIRM FIXED PRICE CONTRACT

7.1.   This is a Firm Fixed Price Contract. The Firm Fixed Price of this Contract is as stated on the signature page of the Contract or any amendments thereto. The Purchaser assumes no liability for costs incurred by the Contractor in excess of the stated Firm Fixed Price except as may be authorised under certain provisions of this Contract.

8.   PERFORMANCE GUARANTEE

8.1.   As a guarantee of performance under the Contract, the Contractor shall deposit with the Purchaser within thirty (30) calendar days from the Effective Date of Contract a bank guarantee (the "Performance Guarantee") denominated in the currency of the Contract, to the value of ten per cent (10%) of the total Contract price.

8.2.   The Performance Guarantee, the negotiability of which shall not elapse before the expiration of the warranty period, or such other period as may be specified in the Contract, shall be made payable to the Purchaser and shall be in the form of certified cheques or a Standby Letter of Credit subject to the agreement of the Purchaser. In the case of a Standby Letter of Credit, payment shall be made to the Purchaser without question and upon first demand by the Purchaser against a certificate from the Purchaser's Contracting Authority that the Contractor has not fulfilled its obligations under the Contract. The Contractor shall have no right to enjoin or delay such payment.

8.3.   Certified Cheques issued to fulfil the requirements of the Performance Guarantee will be cashed by the Purchaser upon receipt and held in the Purchaser's account until the term of the Performance Guarantee has expired.

8.4.   The standby letter of credit shall be subject to Belgian Law and shall be issued by (i) a Belgian bank, (ii) the Belgian subsidiary of a foreign bank licensed to provide financial services in Belgium; or (iii) an insurance company licensed to do business in Belgium and belonging to a Belgian banking institution provided the banking institution guarantees explicitly the demand for payment, unless otherwise specified by the Purchaser.

8.5.   The Contractor shall request in writing relief from the Performance Guarantee upon expiration of the warranty period or such other period as may be specified in the Contract and such relief may be granted by the Purchaser.

8.6.   The Contractor shall be responsible, as a result of duly authorised adjustments in the total contract price and/or period of performance by the Purchaser, for obtaining a commensurate extension and increase in the Performance Guarantee, the value of which shall not be less than ten per cent (10%) of the total contract price (including all amendments), and for depositing such guarantee with the Purchaser, within thirty

(30) calendar days from the effective date of aforesaid duly authorised adjustment.

8.7.   The failure of the Contractor to deposit and maintain such Performance Guarantee with the Purchaser within the specified time frame, or any extension thereto granted by the Purchaser's Contracting Authority, is a material breach of the Contract terms and conditions subject to the provisions of the Contract regarding Termination for Default.

8.8.   The rights and remedies provided to the Purchaser under the present Clause are in addition to any other rights and remedies provided by law or under this Contract. The certificate described in Clause 8.2 above shall not be regarded as a Termination for Default and this Clause is in addition to and separate from the Clause of the Contract detailing termination for default.

8.9.   If the Contractor elects to post the Performance Guarantee by Standby Letter of Credit, the form of the document shall be substantially as follows:

PERFORMANCE GUARANTEE STANDBY LETTER OF CREDIT

Standby Letter of Credit Number: _____

Issue Date: _____

Initial Expiry Date: _____

Final Expiry Date: _____

Beneficiary: NCI Agency, Financial Management,
                    Boulevard Leopold III, B-1110, Brussels
                    Belgium

1.   We hereby establish in your favour our irrevocable standby letter of credit number {number} by order and for the account of (NAME AND ADDRESS OF CONTRACTOR) in the amount of _____. We are advised this undertaking represents fulfilment by (NAME OF CONTRACTOR) of certain performance requirements under Contract No. _____ dated _____ between the NCI Agency ("NCIA and (NAME OF CONTRACTOR).

2.   We hereby engage with you that drafts drawn under and in compliance with the terms of this letter of credit will be duly honoured upon presentation of documents to us on or before the expiration date of this letter of credit.

3.   Funds under this letter of credit are available to you without question or delay against presentation of a certificate signed by the NCI Agency Contracting Officer which states:

> "(NAME OF CONTRACTOR) has not fulfilled its obligations under Contract No. _____ dated _____ between NCI Agency and (NAME OF CONTRACTOR) (herein called the "Contract"), and the NCI Agency, as beneficiary, hereby draws on the standby letter of credit number _____ in the amount denominated in the

currency of the Contract, <u>Amount up to the maximum available under the LOC)</u>, such funds to be transferred to the account of the Beneficiary number _____(to be identified when certificate is presented)."

Such certificate shall be accompanied by the original of this letter of credit.

4. This Letter of Credit is effective the date hereof and shall expire at our office located at _____(Bank Address) on _____. All demands for payment must be made prior to the expiry date.

5. It is a condition of this letter of credit that the expiry date will be automatically extended without amendment for a period of one (1) year from the current or any successive expiry date unless at least 90 (ninety) calendar days prior to the then current expiry date we notify you by registered mail and notify (NAME OF CONTRACTOR) that we elect not to extend this letter of credit for such additional period. However, under no circumstances will the expiry date extend beyond _____ ("Final Expiry Date") without amendment.

6. We may terminate this letter of credit at any time upon 90 (ninety) calendar days notice furnished to both (NAME OF CONTRACTOR) and the NCI Agency by registered mail.

7. In the event we (the issuing bank) notify you that we elect not to extend the expiry date in accordance with paragraph 6 above, or, at any time, to terminate the letter of credit, funds under this credit will be available to you without question or delay against presentation of a certificate signed by the NCI Agency Contracting Officer which states:

    "The NCI Agency has been notified by <u>{issuing bank}</u> of its election not to automatically extend the expiry date of letter of credit number <u>{number}</u> dated <u>{date}</u> pursuant to the automatic renewal clause (or to terminate the letter of credit). As of the date of this certificate, no suitable replacement letter of credit, or equivalent financial guarantee has been received by the NCI Agency from, or on behalf of (NAME OF CONTRACTOR). (NAME OF CONTRACTOR) has, therefore, not fulfilled its obligations under Contract No. _____ dated _____ between NCI Agency and (NAME OF CONTRACTOR), and the NCI Agency, as beneficiary, hereby draws on the standby letter of credit number _____ in the amount of (<u>Amount up to the maximum available under the LOC</u>), such funds to be transferred to the account of the Beneficiary number _____ (to be identified when certificate is presented)."

Such certificate shall be accompanied by the original of this letter of credit and a copy of the letter from the issuing bank that it elects not to automatically extend the standby letter of credit, or terminating the letter of credit.

8. The Beneficiary may not present the certificate described in paragraph 7 above until 20 (twenty) calendar days prior to a) the date of expiration of the letter of credit should {issuing bank} elect not to automatically extend the expiration date of the letter of credit, b) the date of termination of the letter of credit if {issuing bank} notifies the Beneficiary

that the letter of credit is to be terminated in accordance with paragraph 6 above.

9. Multiple partial drawings are allowed to the maximum value of the standby letter of credit.

10. This letter of credit sets forth in full the terms of our undertaking, and this undertaking shall not in any way be modified, amended, or amplified by reference to any document, instrument, or agreement referred to herein (except the International Standby Practices (ISP 98) hereinafter defined) or in which this letter of credit is referred to or to which this letter of credit relates, and any such reference shall not be deemed to incorporate herein by reference any document, instrument, or agreement.

11. This Letter of Credit is subject to The International Standby Practices-ISP98 (1998 Publication) International Chamber of Commerce Publication No.590.

9. PARTICIPATING COUNTRIES

9.1. Unless prior written authorisation of the Purchaser has been obtained, none of the Work, shall be performed other than by firms from and within NATO Participating Countries. Unless otherwise specified in the Contract Special Provisions, the Participating Countries are the twenty-eight (28) Member Nations of the North Atlantic Treaty Organisation.

9.2. Unless prior written authorisation of the Purchaser has been obtained, no material or items of equipment down to and including identifiable Sub-Assemblies shall be manufactured or assembled by a firm other than from and within a NATO Participating Country.

9.3. The Contractor shall not place any Sub-contracts outside the NATO Participating Countries without the prior written authorisation of the Purchaser.

9.4. Unless prior written authorisation of the Purchaser has been obtained, the intellectual property rights for all software and documentation incorporated by the Contractor and/or its Sub-contractors into the Work shall vest with persons or legal entities from and within NATO participating nations and no royalties or licence fees for such software and documentation shall be paid by the Contractor to any source that does not reside within a NATO participating nation.

9.5. Any modification in the nationality, ownership and/or change of control of the Contractor and/or its Sub-contractor(s) shall be immediately notified in writing to the Purchaser with all necessary details to allow the Purchaser to determine whether or not the Contractor and/or its Sub-contractors continue to comply with the Clauses above. Non-compliance with the Clauses above, by the Contractor and/or its Subcontractor may constitute ground for termination of this Contract under Clause 39 (Termination for Default).

10. SUB-CONTRACTS

10.1. The Contractor shall place and be responsible for the administration and performance of all Sub-contracts including terms and conditions which he deems necessary to meet

the requirements of this Contract in full.

10.2.   Prior to the Sub-contractors being given access to any classified information, the Contractor shall ensure that any Sub-contractor that has a need to access classified information for the performance of any part of this Contract has been granted the appropriate facility and personnel security clearances by the Sub-contractor's national authorities and that such clearances are still in effect at the time the information is disclosed and remains in effect throughout the performance of the work to be carried out under the Sub-contract concerned.

10.3.   The Contractor shall seek the approval in writing of the Purchaser prior to the placing of any Sub-contract if:

10.3.1.   the Sub-contract was not part of the Contractor's original proposal; and

10.3.2.   the value of the Sub-contract is known or estimated to exceed 15 per cent of the total Contract value; or

10.3.3.   the Sub-contract is one of a number of Sub-contracts with a single Sub-contractor for the same or related Work under this Contract that in the aggregate are known or expected to exceed 15 per cent of the total Contract value.

10.4.   The Contractor shall inform the Purchaser of any change in Sub-contractors for Sub-contracts of a value known or estimated to exceed 15 per cent of the total Contract value.

10.5.   The Contractor shall submit a copy of any such proposed Sub-contract when seeking approval to the Contracting Authority but such approval by the Contracting Authority shall in no way relieve the Contractor of his responsibilities to fully achieve the contractual and technical requirements of this Contract.

10.6.   The Contractor shall, as far as practicable, select Sub-contractors on a competitive basis consistent with the objectives and requirements of the Contract.

11.   <u>SECURITY</u>

11.1.   The Contractor shall comply with all security measures as are prescribed by the Purchaser and the national security authority or designated security agency of each of the NATO countries in which the Contract is being performed. The Contractor shall be responsible for the safeguarding of classified information, documentation, material and equipment entrusted to him or generated by him in connection with the performance of the Contract.

11.2.   In particular the Contractor undertakes to:

11.2.1.   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;

11.2.2. 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;

11.2.3. abstain from copying by any means, without the authorisation of the Purchaser, the national security authority or designated security agency, any classified documents, plans, photographs or other classified material entrusted to him;

11.2.4. 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;

11.2.5. 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;

11.2.6. deny access to NATO classified information to any person other than those persons authorised to have such access by the national security authority or designated security agency;

11.2.7. 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;

11.2.8. 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;

11.2.9. 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;

11.2.10. apply to the Purchaser for approval before Sub-contracting any part of the work, if the Sub-contract would involve that the Sub-contractor 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;

11.2.11. undertake not to utilise, other than for the specific purpose of the Contract, without the prior written permission of the Purchaser or his authorised 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 authorised with the approval of the Purchaser. Such NATO classified information will be returned at such time as the Purchaser or his authorised representative may direct;

11.2.12. classify any produced document with the highest classification of the NATO classified information disclosed in that document.

12. RELEASE OF INFORMATION

12.1. Except as otherwise specified elsewhere in the Contract and to the extent that it is demonstratively unavoidable and without prejudice to the Clause 11 (Security), the Contractor and/or his employees shall not, without prior authorisation from the Purchaser, release to third parties any information pertaining to this Contract, its subject matter, performance there under or any other aspect thereof.

12.2. The Contractor shall seek the prior written approval of the Purchaser before publishing any press release or disclosing any other information, orally or in writing, in relation to the Contract. The approval of the Purchaser shall be required for both the opportunity and the content of the information.

12.3. This provision shall remain in effect after the termination of the Contract and shall cease to apply to any particular piece of information once that information becomes public knowledge other than through an act, default or omission of the Contractor or its Sub-contractors.

13. PURCHASER FURNISHED PROPERTY

13.1. The Purchaser shall deliver to the Contractor, for use only in connection with this Contract, the Purchaser Furnished Property at the times and locations stated in the Contract. In the event that Purchaser Furnished Property is not delivered by such time or times stated in the Schedule, or if not so stated, in sufficient time to enable the Contractor to meet such delivery or performance dates the Purchaser shall, upon timely written request made by the Contractor, and if the facts warrant such action, equitably adjust any affected provision of this Contract pursuant to Clause 16 (Changes).

13.2. In the event that Purchaser Furnished Property is received by the Contractor in a condition not suitable for its intended use, the Contractor shall immediately notify the Purchaser. The Purchaser shall within a reasonable time of receipt of such notice replace, re-issue, authorise repair or otherwise issue instructions for the disposal of

Purchaser Furnished Property agreed to be unsuitable. The Purchaser shall, upon timely written request of the Contractor, equitably adjust any affected provision of this Contract pursuant to Clause 16 (Changes).

13.3. Title to Purchaser Furnished Property will remain in the Purchaser. The Contractor shall maintain adequate property control records of Purchaser Furnished Property in accordance with sound industrial practice and security regulations.

13.4. Unless otherwise provided in this Contract, the Contractor, upon delivery to him of any Purchaser Furnished Property, assumes the risk of, and shall be responsible for, any loss thereof or damage thereof except for reasonable wear and tear, and except to the extent that Purchaser Furnished Property is consumed in the performance of this Contract.

13.5. Upon completion of this Contract, or at such earlier dates as may be specified by the Purchaser, the Contractor shall submit, in a form acceptable to the Purchaser, inventory schedules covering all items of Purchaser Furnished Property.

13.6. The inventory shall note whether:

13.6.1. The property was consumed or incorporated in fabrication of final deliverable(s);

13.6.2. The property was otherwise destroyed;

13.6.3. The property remains in possession of the Contractor;

13.6.4. The property was previously returned

13.7. The Contractor shall prepare for shipment, deliver DDP at a destination agreed with the Purchaser, or otherwise dispose of Purchaser Furnished Property as may be directed or authorised by the Purchaser. The net proceeds of any such disposal shall be credited to the Contract price or paid to the Purchaser in such other manner as the Purchaser may direct.

13.8. The Contractor shall not modify any Purchaser Furnished Property unless specifically authorised by the Purchaser or directed by the terms of the Contract.

13.9. The Contractor shall indemnify and hold the Purchaser harmless against claims for injury to persons or damages to property of the Contractor or others arising from the Contractor's possession or use of the Purchaser Furnished Property. The Contractor shall indemnify the Purchaser for damages caused by the Contractor to the Purchaser, its property and staff and arising out of the Contractor's use of the Purchaser Furnished Property.

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

14.1. The term "Purchaser Facilities" as used in this Clause shall be deemed to include sites,

property, utilities, ships or vessels and the term "Facility Representative" shall be deemed to refer to the authority designated by the Purchaser responsible for the site, property, utility, ship or vessel.

14.2. The Facility Representative shall provide such available administrative and technical facilities for Contractor's personnel working at Purchaser's Facilities for the purpose of the Contract as in the opinion of the Facility Representative may be necessary for the effective and economical discharge of Work. The Facility Representative shall also determine whether these facilities will be provided free of charge to the Contractor or determine 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.

14.3. The Contractor shall, except as otherwise provided for in the Contract, make good or, at the option of the Purchaser, pay compensation for all damage occurring to any Purchaser's Facilities occasioned by the Contractor, his servants, agents or Sub-contractors, arising from his or their presence and activities in, and use of, the Purchaser's Facilities; provided that this Condition shall not apply to the extent that the Contractor is able to show that any such damage was not caused or contributed to, by his neglect, or default or the neglect or default of his servants, agents or Sub-contractors, or by any circumstances within his or their control.

14.4. All property of the Contractor while at a Purchaser Facility shall be at the risk of the Contractor, and the Purchaser shall accept no liability for any loss or damage, except to the extent that any loss or damage is the result of a wilful act or gross negligence on the part of the Purchaser's employees or agents.

15. HEALTH, SAFETY AND ACCIDENT PREVENTION

15.1. If the Purchaser notifies the Contractor in writing of any non-compliance in the performance of this Contract with safety and health rules and requirements prescribed on the date of this Contract by applicable national or local laws, ordinances and codes, and the Contractor fails to take immediate corrective action, the Purchaser may order the Contractor to stop all or part of the Work until satisfactory corrective action has been taken. Such an order shall not entitle the Contractor to an adjustment of the Contract price or other reimbursement for resulting increased costs, or to an adjustment of the delivery or performance schedule.

16. CHANGES

16.1. The Purchaser may at any time, by written order of the Contracting Authority designated or indicated to be a change order ("Change Order") make changes within the general scope of this Contract, including, without limitation, in any one or more

of the following:

16.1.1. Specifications (including drawings and designs);

16.1.2. Method and manner of performance of the work, including engineering standards, quality assurance and configuration management procedures;

16.1.3. Marking and method of shipment and packing;

16.1.4. Place of delivery;

16.1.5. Amount, availability and condition of Purchaser Furnished Property.

16.2.   The Purchaser shall submit a proposal for Contract amendment describing the change to the Contract.

16.3.   If any such Change Order causes an increase in the Contractor's cost of, or the time required for, the performance of any part of the Work under this Contract, whether or not changed by any such order, the Contractor shall submit a written proposal for adjustment to the Purchaser describing the general nature and amount of the proposal for adjustment. The Contractor shall submit this proposal for adjustment within thirty (30) days after receipt of a written Change Order under 16.1 above unless this period is extended by the Purchaser.

16.4.   If any such Change Order causes a decrease in the Contractor's cost of, or the time required for, the performance of any part of the Work under this Contract, whether or not changed by any such order, the Purchaser shall submit a proposal for adjustment within thirty (30) days from the issuance of the Change Order by submitting to the Contractor a written statement describing the general nature and amount of the proposal for adjustment.

16.5.   Where the cost of property made obsolete or in excess as a result of a change is included in the Contractor's claim for adjustment, the Purchaser shall have the right to prescribe the manner of disposition of such property.

16.6.   The Purchaser reserves the right to reject the introduction of the change, after the evaluation of the change proposal, even if the Purchaser initiated such change.

16.7.   Failure to agree to any requested adjustment shall be a dispute within the meaning of the Clause 41 (Disputes). However, nothing in this Clause shall excuse the Contractor from proceeding with the Contract as changed.

16.8.   No proposal for adjustment by the Contractor for an equitable adjustment shall be allowed if asserted after final payment and acceptance under this Contract.

16.9.   Any other written or oral order (which, as used in this paragraph includes direction, instruction, interpretation, or determination) from the Purchaser that causes a change shall be treated as a Change Order under this Clause, provided, that the Contractor

gives the Purchaser a written notice within thirty (30) Days after receipt of such order stating (i) the date, circumstances, and source of the order; (ii) that the Contractor regards the order as a Change Order; and (iii) a detailed cost and time analysis of the impact of the change, and that the Order is accepted in writing by the Purchaser as a Change Order. The timely written notice requirement, as detailed above, remains in force in all cases, even where, for example, the Purchaser has positive knowledge of the relevant facts.

16.10. All tasks and activities carried out by the Contractor in relation to the processing of the Change Order or in relation to this Clause shall form part of the Contractor's routine work and cannot be charged as additional work.

17. STOP WORK ORDER

17.1. The Purchaser may, at any time, by written order to the Contractor, require the Contractor to stop all, or any part, of the Work called for by this Contract for a period of ninety (90) days after the order is delivered to the Contractor, and for any further period to which the Parties may agree.

17.2. Any such stop work order shall be specifically identified as a stop work order issued pursuant to this Clause (the "Stop Work Order"). The Stop Work Order may include a description of the Work to be suspended, instructions concerning the Contractor's issuance of further orders for material or services, guidance to the Contractor on actions to be taken on any Sub-contracts and any suggestion to the Contractor for minimizing costs.

17.3. Upon receipt of such a Stop Work Order, the Contractor shall forthwith comply with its terms and take all reasonable steps to minimise costs incurred allocable to the Work covered by the Stop Work Order during the period of work stoppage. Within a period of ninety (90) days after a Stop Work Order is delivered to the Contractor, or within any extension of that period to which the Parties shall have agreed, the Purchaser shall either:

17.3.1. cancel the Stop Work Order; or

17.3.2. terminate the Work covered by such Stop Work Order as provided in Clause 40 (Termination for Convenience of the Purchaser).

17.4. If a Stop Work Order issued under this Clause is cancelled or the period of the Stop Work Order or any extension thereof expires, the Contractor shall resume work.

17.5. An equitable adjustment shall be made in the delivery schedule or Contract price, or both, and the Contract shall be modified in writing accordingly, if:

17.5.1. the Stop Work Order results in an increase in the time required for, or in the Contractor's cost properly allocable to, the performance of any part of this Contract, and

17.5.2. the Contractor asserts a Claim for such adjustment within thirty (30) days

after the end of the period of work stoppage; provided that, if the Purchaser decides the facts justify such action, he may receive and act upon any such claim asserted at a later date but prior to final payment under this Contract.

17.6. If a Stop Work Order is not cancelled and the Work covered by such Stop Work Order is terminated for the convenience of the Purchaser the reasonable costs resulting from the Stop Work Order shall be allowed in arriving at the termination settlement.

18. <u>CLAIMS</u>

18.1. The Contractor shall specifically identify the Contract Clause(s) under which the Claim(s) is/are based.

18.2. Claims shall be specifically identified as such and submitted:

18.2.1. within the time specified in the Clause under which the Contractor alleges to have a Claim. If no time is specified in the Clause under which the Contractor intends to base his Claim, the time limit shall be sixty (60) days from the date the Contractor has knowledge or should have had knowledge of the facts on which he bases his Claim; and

18.2.2. before final payment, pursuant to and with the exceptions specified in Clause 33 of these General Provisions entitled" Release from Claims".

18.2.3. Section 18.2.2 above shall only apply to those Claims for which the Contractor could not have had earlier knowledge and were not foreseeable.

18.3. The Contractor shall be foreclosed from his Claim unless he presents complete documentary evidence, justification and costs for each of his Claims within ninety (90) calendar days from the assertion date of such Claims. Claims shall be supported by specifically identified evidence (including applicable historical and planned cost and production data from the Contractor's books and records). Opinions, conclusions or judgmental assertions not supported by such evidence will be rejected by the Purchaser.

18.4. An individual breakdown of cost is required for each element of Contractor's Claims at the time of claim submission or for any material revision of the Claim.

18.5. The Contractor shall present, at the time of submission of a Claim, an attestation as follows:

I ....the responsible senior company official authorised to commit the .... with respect to its claims dated .... being duly sworn, do hereby depose and say that: (i) the facts described in the claim are current, complete and accurate; and (ii) the conclusions in the claim accurately reflect the material damages or contract adjustments for which the Purchaser is allegedly liable.

...............................………..

………………………….

SIGNATURE   Date

18.6.   Failure to comply with any of the above requirements shall result in automatic foreclosure of the Claim. This foreclosure takes effect in all cases and also where, for example, the Claim is based on additional orders, where the facts are known to the Purchaser, where the Claim is based on defective specifications of the Purchaser or an alleged negligence in the pre-contractual stage.

18.7.   Claims submitted by the Contractor will be reviewed by the Contracting Authority. The Contracting Authority will respond within sixty (60) days with a preliminary decision, based on an assessment and evaluation of the facts presented by the Parties, as to whether the Contracting Authority considers the Claim to have merit for consideration. If the preliminary decision of the Contracting Authority is that the Claim, as submitted is without merit, the Contractor shall have fourteen (14) days to present a rebuttal to the Contracting Authority and request reconsideration of the Contracting Authority's decision. Within thirty (30) days receipt of the Contractor's request for reconsideration, the Contracting Authority will issue a decision. The time requirements stated herein may be extended by the Contracting Authority in order to accommodate additional preparation efforts and fact finding discussions but the Contracting Authority may not unreasonable extend such a period. A decision that the submitted claim is without merit will be identified as such, will be issued in writing by the Contracting Authority and will be conclusive. A decision may only be challenged by the Contractor through the Disputes provisions described herein.

18.8.   A decision by the Purchaser that the claim has merit will result in a Contracting Authority request to enter into negotiations with the Contractor to arrive at a mutually agreed fair and equitable settlement. The Contracting Authority's decision will contain a target date for the commencement and conclusion of such operations. If the Parties are unable to arrive at an agreement on a fair and reasonable settlement by the target date for conclusion, or any extension thereto made by the Contracting Authority, the latter may declare that negotiations are at an impasse and issue a preliminary decision as to the fair and reasonable settlement and the reasons supporting this decision. The Contractor shall have a period of thirty (30) days to present a rebuttal to the Contracting Authority and request reconsideration of the Contracting Authority's decision. Within sixty (60) days of receipt of the Contractor's request for reconsideration, the Contracting Authority will issue its decision on the request for reconsideration. This timeframe will be respected unless an authorisation is needed from a NATO or other authority, the schedule for which is beyond the Contracting Authority's control. A decision of the Contracting Authority on the reconsideration of the matter will be identified as such, will be issued in writing by the Contracting

Authority and will be conclusive. A decision on the reconsideration may only be challenged by the Contractor through the Disputes provisions described herein.

18.9. No Claim arising under this Contract may be assigned by the Contractor without prior approval of the Purchaser.

18.10. The Contractor shall proceed diligently with performance of this Contract, pending final resolution of any request for relief, claim appeal, or action arising under the Contract, and comply with any decision of the Contracting Authority.

19. <u>PRICING OF CHANGES, AMENDMENTS AND CLAIMS</u>

19.1. Contractor's pricing proposals for Changes, amendments and Claims shall be priced in accordance with the Purchaser's Pricing Principles (Annex 1 hereto and the sample spreadsheet and its " Instructions to Complete" at Appendix 1) or the national government pricing rules and regulations for the Contractor's own country, where in force. The Contractor shall provide cost information accompanied by appropriate substantiation as required by the Purchaser in accordance with Purchaser's Pricing Principles, or such other format as may be agreed between the Contractor and the Purchaser.

19.2. With respect to Clause 19.1 above, when the price or price adjustment is based on adequate price competition, established catalogue or market price of commercial items sold in substantial quantities to the general public, or prices set by law or regulation, the Contractor shall be responsible for substantiation of such cases to the satisfaction of the Purchaser.

19.3. For the purposes of verifying that the cost or pricing data submitted in conjunction with Clause 19.1 above are accurate, complete and current, the Purchaser or any Purchaser authorised representative shall have the right of access to the Contractor's facilities to examine, until the expiration of three (3) years from the date of final payment of all sums due under the Contract:

19.3.1. those books, records, documents and other supporting data which will permit adequate evaluation and verification of the cost or pricing data submitted; and/or

19.3.2. the computations and projections which were available to the Contractor as of the date of the Contractor price proposal.

19.4. The Contractor, subject to the provisions of this Clause, shall require Sub-contractors to provide to the Purchaser, either directly or indirectly:

19.4.1. cost or pricing data;

19.4.2. access to Sub-contractor's facilities and records for the purposes of verification of such cost or pricing data; and

19.4.3. a Certificate of Current Cost or Pricing Data, when required.

19.5. If any price, including profit, negotiated in connection with this Contract was proposed, taking any of the following into account: :

19.5.1. the Contractor furnished cost or pricing data which was not complete, accurate and current as certified in the Contractor's Certificate of Current Cost or Pricing Data provided in accordance with Clause 19.6 below;

19.5.2. a Sub-contractor, pursuant to Clause 19.4 above or any Sub-contract clause therein required, furnished cost or pricing data which was not complete, accurate and current as certified in the Sub-contractor's Certificate of Current Cost or Pricing Data;

19.5.3. a Sub-contractor or prospective Sub-contractor furnished cost or pricing data which was required to be complete, accurate and current and to be submitted to support a Sub-contract cost estimate furnished by the Contractor but which was not complete, accurate and current as of the date certified in the Contractor's Certificate of Current Cost or Pricing Data; or

19.5.4. the Contractor or a Sub-contractor or prospective Sub-contractor furnished any data, not within 19.5.1 through 19.5.3 above, which, as submitted, was not complete, accurate and current;

then the price and/or cost shall be adjusted accordingly and the Contract shall be modified in writing as may be necessary to reflect such.

19.6. At the time of negotiating any price, including profit, which is based upon the submission of cost or pricing data by the Contractor, the Contractor shall be required to submit a certificate of current cost or pricing data ("Certificate").

19.6.1. Such Certificates will certify that, to the best of the Contractor's knowledge and belief, cost or pricing data submitted to the Purchaser in support of any proposal for a price, price adjustment or claim, are accurate, complete and current, as per the completion of the negotiations or, in the case of a claim, as per the submission date of the claim.

19.6.2. All such Certificates shall be in the format shown below and shall be dated and signed by a responsible officer of the company:

CERTIFICATE OF CURRENT COST OR PRICING DATA

This is to certify that cost or pricing data as submitted, either actually or by specific identification in writing to the Purchaser or his representative in support of...(Claim, Amendment, ECP#, etc.,) are accurate, complete and current as of ....(Date).

By submitting the price proposal, the Contractor/sub-Contractor

or prospective sub-Contractor grant the Purchaser or his authorized representative(s) the right to examine those records, data and supporting information, used as a basis for the pricing submitted.

_____
Name of Company

_____
Signature

_____
Printed Name of Signatory

_____
Title of Signatory

_____
Date of Signature

19.6.3. The Contractor shall insert the substance of this Clause 19.7 in each Sub-contract.

19.7. For all additional or follow-up agreements which are made for Work which are furnished to the Purchaser without competition, the Contractor shall offer prices on a "Preferred Customer" basis, that is offer prices which are as favourable as those extended to any Government, Agency, Company, Organisation or individual purchasing or handling like quantities of equipment and/or Parts covered by the Contract under similar conditions. In the event that prior to completing delivery under this Contract the Contractor offers any of such items in substantially similar quantities to any customer at prices lower than those set forth herein, the Contractor shall so notify the Purchaser and the prices of such items shall be correspondingly reduced by a supplement to this Contract. Price in this sense means "Base Price" prior to applying any bonus, export tax reduction, turn-over tax exemptions and other reductions based on National Policies.

20. **NOTICE OF SHIPMENT AND DELIVERY**

20.1. Except as may be specified in the Special Contract Provisions, delivery of all items under this Contract shall be made by the Contractor on the basis of "Delivery Duty Paid" (DDP) as defined by the INCOTERMS 2000 (International Chamber of Commerce Publication No. 560). It shall be noted, however, that because the Purchaser is exempted from direct taxes and duty as set forth in Clause 26 (Taxes and

Duties), there is no duty to be paid by the Contractor.

20.2.   "Delivery" of required Work by the Contractor does not constitute "Acceptance" by the Purchaser for purposes of meeting the requirements of the Contract Schedule where Purchaser acceptance is the stated payment or schedule milestone.

20.3.   Thirty (30) Days, or such other period as specified in the Contract, prior to the delivery of any shipment of Work, the Contractor shall give prepaid notice of shipment to the Purchaser. The Notice of Shipment shall contain, as appropriate, the request for customs form 302, or equivalent document, which shall enable any carrier to conduct duty free import/export clearance through customs for the Purchaser on behalf of NATO.

20.4.   The customs form 302 is an official customs clearance declaration issued in advance of shipment by the Purchaser to provide certified information as to the duty free import, export, or transit of NATO consignments between NATO countries.

20.5.   The Notice of Shipment and request for Form 302 or equivalent document shall contain the following information:

20.5.1.   Purchaser's Contract number;

20.5.2.   Contract item number, designation and quantities;

20.5.3.   destination;

20.5.4.   number and description of the packages (gross and net weight);

20.5.5.   description of the goods and their value (for custom purpose only, not commercial value)

20.5.6.   consignor's name and address;

20.5.7.   consignee's name and address;

20.5.8.   method of shipment (i.e. road, rail, sea, air, etc.);

20.5.9.   name and address of freight forwarder.

20.6.   Forwarding Agents, Carriers or other responsible organisations shall be informed by the Contractor of the availability of Form 302 or equivalent document and how the form shall be utilised to avoid the payment of custom duties. Form 302 or equivalent document shall be incorporated in all shipping documents provided to the carrier.

20.7.   Upon receipt of the Notice of Shipment from the Contractor, the Purchaser may require the Contractor to send copies of the Notice of Shipment to the receiving parties and the Contractor shall comply with this requirement.

21.   INSPECTION AND ACCEPTANCE OF WORK

21.1.   For the purposes of this Clause, Work does not include documentation which is addressed in Clause 22 (Inspection and Acceptance of Documentation) hereafter.

21.2.   Unless otherwise specifically provided for in the Contract, all Work and all Parts and

equipment incorporated in the Work are to be new and of the most suitable grade of their respective kinds for the purpose, notwithstanding the requirements for testing, inspection and performance as required under this Contract. All workmanship shall be as specified under the Contract or, if no workmanship standards are specified, best commercial or "state of the art" complying with relevant (National and International) standards.

21.3. All Work may be subject to inspection and test by the Purchaser or his authorised representative(s) to the extent practicable at all times and places prior to Acceptance, including the period of manufacture, or after delivery or as otherwise specified in the Contract. For the purposes of inspection and testing the Purchaser may delegate as his representative the authorised National Quality Assurance Representative (NQAR) in accordance with STANAG 4107.

21.4. No representative or NQAR appointed by the Purchaser for the purpose of determining the Contractor's compliance with the technical requirements of the Contract shall have the authority to change any of the specifications. Such changes may only be made by the Contracting Authority in writing in accordance with Clause 16 (Changes).

21.5. The presence or absence of an NQAR or other Purchaser representative shall not relieve the Contractor from conforming to the requirements of this Contract.

21.6. Acceptance or rejection of the Work shall be made as promptly as practicable after delivery, except as otherwise provided in the Contract. Failure to timely accept or reject the Work shall neither relieve the Contractor from responsibility for such Work nor impose liability on the Purchaser.

21.7. In the event that any Work, or lots thereof, or services are defective in design, material, workmanship or manufacturing quality, or as a result of undue wear and tear or otherwise not in conformity with the requirements of this Contract, including any characteristic or condition which is or becomes at variance to the performance specifications, to the intended function of the Work or the function to which it could reasonably be expected that the Work would perform, the Purchaser shall have the right either to reject them (with or without instructions as to their disposition) or to require their correction or replacement. Work which has been rejected or required to be corrected or replaced shall, at the expense of the Contractor, be removed, or, if permitted or required by the Contracting Authority, corrected in place by the Contractor promptly after notice, and shall not thereafter be tendered for acceptance by the Contractor unless the former rejection or requirement of correction or replacement is withdrawn. If the Contractor fails promptly to remove, replace or correct such Work the Purchaser may either:

21.7.1. by contract or otherwise return, replace or correct such Work or services and charge to the Contractor the cost incurred by the Purchaser; and/or

21.7.2. terminate this Contract for default as provided in Clause 39 (Termination for Default).

21.8. When NQAR is not applicable based on the scale of the project, the Purchaser reserves the right to perform inspections through his own staff in accordance with the latest ISO standard at the time of inspection.

21.9. Unless the Contractor corrects or replaces such Work within the delivery schedule, the Purchaser may require the delivery of such Work at a reduction in price which is equitable under the circumstances. Failure to agree to such reduction of price shall be a dispute within the meaning of Clause 41 (Disputes).

21.10. If any inspection or test is made by the Purchaser's representatives on the premises of the Contractor or Sub-contractor, the Contractor, without additional charge, shall provide all reasonable facilities and assistance for the safety and convenience of the Purchaser's representatives in the performance of their duties. The NQAR or other Purchaser representatives shall have the right of access to any area of the Contractor's or his Sub-contractor's premises where any part of the contractual work is being performed.

21.11. If Purchaser inspection or test is made at a point other than the premises of the Contractor or Sub-contractor, it shall be at the expense of the Purchaser except as otherwise provided in this Contract; provided, that in case of rejection the Purchaser shall not be liable for any reduction in value of samples used in connection with such inspection or test.

21.12. All inspections and tests by the Purchaser shall be performed in such a manner as not to unduly delay the Work.

21.13. The Purchaser reserves the right to charge to the Contractor any additional cost of Purchaser inspection and test when Work is not ready at the time such inspection and test is requested by the Contractor or when re-inspection or retest is necessitated by prior rejection.

21.14. Acceptance or rejection of the Work shall be made as promptly as practicable after delivery, except as otherwise provided in this Contract, but failure to inspect and accept or reject Work shall neither relieve the Contractor from responsibility for such Work as are not in accordance with the Contract requirements nor impose liability on the Purchaser thereof.

21.15. The inspection and test by the Purchaser of any Work or lots thereof, or services, does not relieve the Contractor from any responsibility regarding defects or other failures to meet the Contract requirements which may be discovered prior to acceptance.

21.16. Acceptance of Work shall take place when the Contracting Authority confirms acceptance in writing of the Work in accordance with the procedure specified in the Contract, or if none is so specified then the Contracting Authority shall be deemed to have accepted the Work without prejudice to any other remedies, when and as soon as any of the following events have occurred:

21.16.1. the Purchaser has taken the Work into use, except as specifically provided by Clause 23 (Use and Possession Prior to Acceptance);

21.16.2. the Purchaser has not exercised its right of rejection of the Work within any period specified for that purpose in the Contract;

21.16.3. there being no period for exercising the right of rejection specified in the Contract, a reasonable time, all the circumstances having been taken into account, has elapsed since inspection of the Work was effected in accordance with the Contract.

21.17. Except as otherwise provided in this Contract, acceptance shall be conclusive except as regards latent defects, fraud, or such gross mistakes as amount to fraud.

21.18. Unless otherwise specified in this Contract, the Contractor shall have or establish, implement and maintain an effective and economical quality control system necessary to satisfy the Contract requirement. The system shall provide for the early and prompt detection of deficiencies, trends and conditions which could result in unsatisfactory quality and for timely and effective corrective action. Objective evidence that the system is effective shall be readily available to the Purchaser and its authorised representatives. Records of all inspection and testing work by the Contractor shall be kept complete and available to the Purchaser's representatives during the performance of this Contract and for such longer periods as may be specified elsewhere in this Contract.

22. INSPECTION AND ACCEPTANCE OF DOCUMENTATION

22.1. The Contractor shall provide to the Purchaser a draft version of the required documentation as provided by the Contract Schedule and the Statement of Work. Review of draft documentation under this Contract will be made by the Purchaser upon the delivery of these items by the Contractor. The review will be conducted by the Purchaser through duly authorised representatives.

22.2. Upon delivery of the draft documentation, the Purchaser will have a period of review as provided by the Statement of Work. At the end of the review period or before if deemed practical by the Purchaser, the Purchaser's comments will be presented to the Contractor in writing. The substance of such comments will pertain to items of error, non-conformity, omission and guidance in relation to the requirements of the Statement of Work.

22.3. Purchaser Review of the delivered items will emphasise the conformity with the requirements of the Statement of Work, thoroughness of analysis, logical bases of conclusions and models and coherence and completeness of presentation. The review process will also examine editorial and grammatical correctness and the suitability and accuracy of graphics supporting the text.

22.4. The Contractor shall, after receipt of Purchaser comments, incorporate changes, revisions and corrections required by the Purchaser and present the revised documentation in final form to the Purchaser for inspection in accordance with the delivery date specified in the Schedule.

22.5. During the review process the Contractor is not required to halt efforts on further tasks as identified in the Statement of Work. The Purchaser, however, shall not be held liable for any work carried out by the Contractor which is based on draft documentation yet to be reviewed.

22.6. Upon receipt of the items in final form, the Purchaser will inspect the items for a period

not exceeding two weeks (or as otherwise stated in the Statement of Work). At the end of the inspection, the Purchaser will notify the Contractor that:

22.6.1. the items have been accepted;

22.6.2. the acceptance of the items is deferred pending further revision; or

22.6.3. the items are rejected and significantly fail to meet Contract requirements.

22.7. In the case of Clause 22.6.2 above, the Contractor shall only be responsible for those revisions and corrections requested by the Purchaser and the Purchaser may not request additional revisions during inspection after required revisions have been made. However, if the Purchaser determines that a directed revision has not been made or if such directed revision was cause for revision of other portions of content which were not made by the Contractor, the Purchaser may withhold acceptance until such revisions are made by the Contractor.

22.8. The Contractor shall provide to the Purchaser on request supporting technical data, computer software, databases and background analyses in order to validate findings contained in the delivered items.

22.9. Purchaser acceptance shall be made in writing by the Contracting Authority.

23. USE AND POSSESSION PRIOR TO ACCEPTANCE

23.1. Except as otherwise provided in the Special Contract Provisions, the Purchaser shall have the right to take possession of, or use, any completed or partially completed Work under the Contract at any time, when notified by the Contracting Authority, however such possession or use shall not constitute Acceptance by the Purchaser, as defined in the Contract.

23.2. While the Purchaser has such use or is in such possession, the Contractor shall be relieved of the responsibility for loss or damage to the Work concerned other than that resulting from the Contractor's fault, negligence or defect to the Work.

23.3. If such prior possession or use by the Purchaser delays the progress of the Work or causes additional expense to the Contractor, an equitable adjustment in the Contract price or the time of delivery will be made, in accordance with the Clause 16 (Changes), and the Contract shall be modified in writing accordingly.

24. OWNERSHIP AND TITLE

24.1. Except as may be otherwise stated in the Contract Special Provisions and Clause 23 (Use and Possession prior to Acceptance), ownership and title to all Work will pass to the Purchaser only upon Acceptance by the Contracting Authority in writing. Where the Contract provides for Provisional Acceptance and Final Acceptance, ownership and title will pass to the Purchaser upon written notification of Final Acceptance.

25. INVOICES AND PAYMENT

25.1.   Unless otherwise specified in the Contract Special Provisions, invoices shall only be submitted after delivery and Acceptance of the Work and for the total prices and currency(ies) as set out under the Schedule of Work.

25.2.   Invoices in respect of any Work or services shall be prepared and submitted to the Purchaser and shall contain all of the elements listed below:

25.2.1.   Contract number;

25.2.2.   Purchaser's Purchase Order number ;

25.2.3.   accounting codes (as specified in this Contract);

25.2.4.   item number (as defined in the Contract);

25.2.5.   Contract description of Work or services, sizes, quantities, unit prices, and extended totals (exclusive of taxes and duties for which relief is available);

25.2.6.   Details of Bills of Lading or Freight Warrant numbers and weight of shipment shall be identified on each invoice as appropriate.

25.3.   In addition, documentary evidence of Acceptance including copies of certificates of conformity shall be submitted together with each invoice. Invoices shall not be submitted to the Purchaser without Acceptance having been previously made by the Purchaser.

25.4.   Each copy of the invoice shall contain the following certificate which shall be signed by a duly authorised company official on the designated original invoice:

> *"I certify that the above invoice is true and correct, that the delivery of the above described items has been duly carried out and the payment thereof has not been received.*
>
> *Order placed for official use. Exemption from VAT Article 42,§3&3*of VAT Code for Belgium or Article 151, §1b of the Council Directive 2006/112/EC dd. 28 November 2006 on intra-community purchases and/or services.".*

25.5.   All invoices shall be submitted to:

accountspayable@ncia.nato.int.

In the event the Contractor needs to submit the invoice to a physical address, it shall be submitted to:

NCI Agency – Accounts Payable
Boulevard Léopold III
B-1110 Brussels
Belgium

25.6.   Invoices will be settled by the Purchaser within sixty (60) days of receipt of a properly prepared and submitted invoice.

25.7.   The Purchaser shall not bear any cost relating to financial guarantees which the Contractor is required to provide under this contract. The Purchaser is released from any interest resulting from any reason whatsoever.

26.   <u>TAXES AND DUTIES</u>

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

26.2.   The Contractor shall be responsible for ensuring that his respective Sub-contractors are aware that the Purchaser is exempt from taxes and customs duties. The Contractor (and his respective Sub-contractors) shall be responsible for complying with all applicable national and local legal and administrative procedures to ensure that authorities do not attempt to assess taxes and customs duties on goods and property imported or exported through NATO member nation frontiers under this Contract nor assess direct taxation (VAT) on goods sold to the NCIA under this Contract.

26.3.   The Purchaser shall give reasonable assistance in providing evidence/documents which might be required by the Contractor to ensure that NCIA receives tax exemption by virtue of its status under the Ottawa Agreement.

26.4.   If, after complying with all national and local legal and administrative procedures, the authorities persist in attempting to impose taxes or duties on goods provided under this Contract, the Contractor shall inform the Contracting Authority providing the particulars of the situation, the procedures which have been followed and the point of contact at the national authority which is attempting to impose taxation or duty. The Contracting Authority will examine the situation and attempt to clarify the legal and administrative basis of the difficulty. If the Contracting Authority so directs, the Contractor shall pay the required taxes and duties and file for reimbursement or rebate from the national authorities in accordance with national legislative and administrative procedures.

26.5.   In the event that the petition for reimbursement or rebate is denied by the national authorities concerned and providing that the Contractor and/or his Sub-contractor have complied with the national legislative and administrative procedures, the Purchaser shall reimburse the full amount of the payment(s) upon receipt of the Contractor's invoice indicating such tax or duty as a separate item of cost and fully identified by reference to any governmental law, regulation and/or instruction pursuant to which such tax or duty is enforced. The Contractor shall offer assistance and execute any such document that may be useful or required to ensure that Purchaser obtains the reimbursement of any tax or duty retained by a national authority.

26.6.   In the event of the Contractor and/or Sub-contractor not complying with national legislative or administrative procedures, taxes and duties paid by the Contractor and/or Sub-contractors shall not be reimbursed by the Purchaser.

26.7.   Following payment by the Purchaser of the taxes and/or duties pursuant to Clause 26.4 above, should the Contractor subsequently receive a rebate of any amount paid by the Purchaser, the Contractor shall immediately notify the Purchaser and the amount of such rebate shall be credited or reimbursed to the Purchaser, as directed. The Contractor shall be responsible for taking any and all action that could reasonably be required in order to obtain such rebate.

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

27.   WARRANTY OF WORK (exclusive of Software)

27.1.   For the purpose of this Clause:

27.1.1. "Acceptance" shall mean the act of an authorised representative of the Purchaser by which the Purchaser assumes title and ownership of delivered Work rendered as partial or complete performance of the Contract. "Acceptance" in this regard, unless specifically provided otherwise in the Contract Special Provisions, means final Acceptance where the Contract provides for Provisional or Partial Acceptance;

27.1.2. "Correction" shall mean the elimination of a defect;

27.1.3. "Work" shall not include software.

27.2.   The Contractor shall not be responsible under this Clause for the Correction of Defects in Purchaser Furnished Property, except for Defects in Contractor performed installation, unless the Contractor performs, or is obligated to perform, any modifications or other work on Purchaser Furnished Property. In that event, the Contractor shall be responsible for Correction of Defects that result from the modifications or other Work.

27.3.   Unless another period of time is indicated in the Contract Special Provisions, the duration of the warranty provided by the Contractor and its Subcontractors shall be twelve (12) months from the date of Acceptance under this Contract as notified in writing by the Contracting Authority.

27.4.   Any Work or parts thereof corrected or furnished in replacement and any services re-performed shall also be subject to the conditions of this Clause 27 to the same extent as Work initially accepted. The warranty, with respect to these Work, or parts thereof shall be equal in duration to that set forth in Clause 27.3, and shall run from the date of delivery of the corrected or replaced Work.

27.5.   If the Contractor becomes aware at any time before Acceptance by the Purchaser (whether before or after tender to the Purchaser) or at a later time, that a Defect exists

in any Work, the Contractor shall either promptly correct the Defect or promptly notify the Purchaser, in writing, of the Defect, using the same procedures prescribed in Clause 27.8.

27.6.   The Purchaser will notify in writing the Contractor of the existence of a Failed Component and return to the Contractor the Failed Component within thirty (30) Days of the discovery of such failure. The transport of the Failed Component shall be at the expense of the Purchaser. The notification of the failure will include as much information as practicable about the circumstances and operating environment at the time of the failure. Upon receipt of such notification by the Purchaser (which may precede receipt of the Failed Component), the Contractor shall ship to the location of the Failed Component an identical component for installation by Purchaser personnel. The Contractor shall ship such replacement component(s) Delivery Duty Paid. Such transportation and replenishment charges are included in the cost of line item of the Contract identified as the warranty.

27.7.   In such rare cases where the Failed Component is either too large to be easily transported or the Failed Component cannot be readily identified and isolated within the larger entity, the Contractor shall be notified by the Purchaser of the failure immediately by telephone, fax or e-mail. The Contractor shall provide technical support to the Purchaser personnel in identifying the Failed Component so as to afford the Purchaser the opportunity to return the Failed Component. In such a case where the Failed Component cannot be identified or is not cost effective or practical to ship to the Contractor's facility, the Contractor may elect to send field service personnel to the site of the failure and repair such equipment on location. In this event, such field service personnel shall be dispatched to the site of the failure within forty-eight (48) hours of initial notification. The expense of the technical support and field service shall be borne by the Contractor.

27.8.   The Contractor shall conduct analysis of all Failed Components which are returned to him by the Purchaser or repaired in the field by Contractor field service personnel to determine the cause of the failure. The Contractor shall issue a report to the Purchaser within thirty (30) days of receipt of a returned item or field repair which contains the results of the analysis. The report shall contain the conclusion of the Contractor as to whether the cause of the failure was due to a Manufacturing Defect or a Design Defect and declare what course of remedial action the Contractor shall implement to prevent further failures of a similar nature. Repetitive failures of the same component may be grounds for a de facto determination by the Purchaser that a Design Defect exists.

27.9.   If the Purchaser determines that a Design Defect exists in any of the Work accepted by the Purchaser under this Contract, the Purchaser shall promptly notify the Contractor of the Defect, in writing, within ninety (90) days after discovery of the Defect. Upon timely notification of the existence of a Defect, or if the Contractor independently discovers a Design Defect or Manufacturing Defect in accepted Work, the Contractor shall submit to the Purchaser, in writing within thirty (30) days, a recommendation for corrective actions, together with supporting information in sufficient detail for the Purchaser to determine what corrective action, if any, shall be undertaken.

27.10. The Contractor shall also prepare and furnish to the Purchaser data and reports applicable to any Correction required under this Clause (including revision and updating of all other affected data and already accepted documentation called for under this Contract) at no increase in the Contract price.

27.11. In the event of timely notice of a decision not to correct or only to partially correct, the Contractor shall submit a technical and cost proposal within forty-five (45) days to amend the Contract to permit Acceptance of the affected Work in accordance with the revised requirement, and an equitable reduction in the Contract price shall promptly be negotiated by the Parties and be reflected in a supplemental agreement to this Contract.

27.12. Within thirty (30) days after receipt of the Contractor's recommendations for corrective action and adequate supporting information in accordance with Clause 27.9, the Purchaser using sole discretion, shall give the Contractor written notice not to correct any Defect, or to correct or partially correct any Defect within a reasonable time.

27.13. The Contractor shall promptly comply with any timely written direction from the Purchaser to correct or partially correct a manufacturing or Design Defect, at no increase in the Contract price.

27.14. The Purchaser shall give the Contractor a written notice specifying any failure or refusal of the Contractor to:

27.14.1. conduct analyses of Failed components and implement a course of remedial action as required by Clauses 27.7 and 27.8;

27.14.2. provide replacement components, technical support or on-location field repair service in accordance with Clauses 27.6 and 27.7; or

27.14.3. prepare and furnish data and reports as required by Clause 27.10.

27.15. The notice referred to in Clause 27.14 shall specify a period of time following receipt of the notice by the Contractor in which the Contractor must remedy the failure or refusal specified in the notice.

27.16. If the Contractor does not comply with the Purchaser's written notice in Clause 27.14, the Purchaser may by Contract or otherwise:

27.16.1. Obtain detailed recommendations for corrective action from its own resources or third parties and either:

27.16.1.1. correct the Work;

27.16.1.2. replace the Work, and if the Contractor fails to furnish timely disposition instructions, the Purchaser may dispose of the non-confirming Work for the Purchaser's account in a reasonable manner, in which case the Purchaser is entitled to reimbursement from the Contractor, or from the proceeds, for the reasonable expenses of care and disposition, as well as for excess costs incurred or to be incurred;

27.16.1.3. obtain applicable data and reports; and/or

27.16.1.4. charge the Contractor for the costs incurred by the Purchaser.

27.17. In no event shall the Purchaser be responsible for any extension or delays in the scheduled deliveries or periods of performance under this Contract as a result of the Contractor's obligations to correct Defects, nor shall there be any adjustment of the delivery schedule or period of performance as a result of the Correction of Defects unless provided by a supplemental agreement with adequate consideration.

27.18. The rights and remedies of the Purchaser provided in this Clause shall not be affected in any way by any terms or conditions of this Contract concerning the conclusiveness of inspection and Acceptance and are in addition to, and do not limit, any rights afforded to the Purchaser by any other Clause of this Contract or applicable law.

28. RIGHT OF ACCESS, EXAMINATION OF RECORDS

28.1. The Contractor shall give to the Purchaser and/or his representative(s) full and free access to his premises as and when required for the purpose of this Contract and shall ensure the same right of access to the premises of his Sub-contractors, by the inclusion in any such Sub-contracts of a provision substantially as set forth in this Clause.

28.2. The Purchaser and/or his representative(s) shall continue to have such right of access and examination of records as set forth in Clause 28.1 above until final payment under the Contract or the end of the warranty provisions under the Contract, whichever occurs later.

28.3. The expiration of the Purchaser's rights as set forth in Clause 28.2 is further subject to the provisions of Clause 19 (Pricing of Changes, Amendments and Claims), where a three (3) year right is established following the agreement of contractual amendments or the settlement of claims based upon the submission of cost and pricing data.

28.4. The period of access and examination described in Clause 28.1 above for records not related to cost aspects of a dispute or claim but which relate to issues of fact arising under either proceedings under Clause 41 (Disputes) or Clause 42 (Arbitration), or the settlement of claims made by either Party pursuant to the performance of this Contract, shall continue until such appeals, litigation or claims have been disposed of.

29. PATENT AND COPYRIGHT INDEMNITY

29.1. The Contractor shall assume all liability against any and all third party claims that the services, Work and/or parts thereof, in whole or in part, infringe(s) an IPR in force in any countries, arising out of the manufacture, import, export, performance of the services or delivery of Work and/or out of the use or disposal by, or for the account

of, the Purchaser of such Services and/or Work. The Contractor shall reimburse and/or indemnify the Purchaser, its officers, agents, employees and/or consultants: (i) for all costs, fees, damages, awards, settlement amounts and any other expenses awarded to the third party right holder against Purchaser and/or the final beneficiaries of the Work in relation to said third party claim; and (ii) for the costs and expenses incurred by the Purchaser in relation to said third party claims, including attorney fees. The Contractor shall be responsible for obtaining any licences necessary for the performance of this Contract and for making all other arrangements required to indemnify the Purchaser from any liability for IPR infringement in said countries.

29.2. Each Party shall immediately notify the other of any intellectual property infringement claims of which he has knowledge and which pertain to the Work under this Contract.

29.3. This indemnity shall not apply under the following circumstances:

29.3.1. Patents or copyright which may be withheld from issue by order of the applicable government whether due to security regulations or otherwise;

29.3.2. An infringement resulting from specific written instructions from the Purchaser under this Contract;

29.3.3. An infringement resulting from changes made to the Work by the Purchaser without the Contractor prior written consent, or;

29.3.4. An infringement resulting from changes or additions to the Work subsequent to final delivery and Acceptance under this Contract

30. <u>INTELLECTUAL PROPERTY</u>

30.1. Purchaser Background IPR

30.1.1. The Contractor is licensed to use, non-exclusively and royalty-free any Purchaser Background IPR that is or will be made available for the sole purpose of carrying out the Work.

30.1.2. The Contractor shall not use any Purchaser Background IPR other than for the purpose of carrying out the Work without the prior written agreement of the Purchaser. Any such agreement shall include the terms relating to such use.

30.1.3. The Purchaser gives no warranty as to the validity of any Purchaser Background IPR. The Contractor shall not do anything or act in any way which is inconsistent with or prejudicial to the ownership by the Purchaser of any Purchaser Background IPR.

30.2. Contractor Background IPR

30.2.1. Any use of Contractor Background IPR for the purpose of carrying out the Work pursuant to the Contract shall be free of any charge to Purchaser. The

Contractor hereby grants to NATO a non-exclusive, royalty-free and irrevocable licence to use and authorise others to use any Contractor Background IPR for the purpose of exploiting or otherwise using the Foreground IPR.

30.2.2. Any use of Contractor Background IPR is not limited to the number of users or the number of licenses required by the Contract for the use of system. The Purchaser reserves the right to use the Contractor Background IPR for any number of users and number of licenses as required, at no additional cost to the Purchaser.

30.3. Foreground IPR

30.3.1. All Foreground IPR is the property of the Purchaser on behalf of NATO. Consequently, no statement shall be made restricting the rights of the Purchaser in the Foreground IPR.

30.3.2. The Contractor shall ensure that suitable arrangements are in place between its employees, agents, consultants and itself regarding Foreground IPR generated by said employees, agents, Subcontractors and consultants to allow the Contractor to fulfil its obligations under Clause 30.3.1 above.

30.3.3. The Contractor shall be entitled to use Foreground IPR on a non-exclusive, royalty free basis solely for the purpose of carrying out the Work.

30.3.4. The Contractor shall not use any Foreground IPR other than for the purpose of carrying out the Work without the Purchaser's prior written agreement. Any such agreement shall include terms relating to such use.

30.3.5. The Contractor shall provide the Purchaser, at the latest upon delivery of the Work and thereafter for the duration of the warranty and any purchased CLS agreement period, with full documented records of information in relation to the Work, including but not limited to, all drawings, specifications and other data that is necessary or useful to further develop, maintain and operate the Work.

30.3.6. The Contractor shall:

30.3.6.1. do all things necessary and sign all necessary or useful documents to enable the Purchaser to obtain the registration of the Foreground IPR as the Purchaser may require and select; and

30.3.6.2. to execute any formal assignment or other documents as may be necessary or useful to vest title to any Foreground IPR in the Purchaser.

30.3.7. The Contractor undertakes:

    30.3.7.1. to notify the Purchaser promptly of any invention or improvement to an invention or any design conceived or made by the Contractor; and

    30.3.7.2. to provide the Purchaser with such information as the Purchaser may reasonably request in order to: (i) determine the patentability of such invention or improvement; (ii) assess the need for registering such invention or improvement; and (iii) evaluate the potential value to the Purchaser of such a patent or registration if issued.

30.3.8. If the Purchaser determines that it wishes to apply for one or more patents for the disclosed invention or improvement or for a registration for the disclosed design, it will prosecute such application(s) at its own expense. The Contractor undertakes to provide the Purchaser, at the Purchaser's expense, with such information and assistance as the Purchaser shall reasonably require prosecuting such application(s).

30.4. Third Party IPR

30.4.1. Any use of Third Party IPR for the purpose of carrying out the Work pursuant to the Contract shall be free of any charge to the Purchaser. The Contractor hereby grants to NATO a non-exclusive, royalty-free and irrevocable licence to use and authorise others to use any Third Party IPR for the purpose of exploiting or otherwise using the Foreground IPR.

30.4.2. With the exception of COTS items, any use of Third Party IPR is not limited to the number of users of the number of licences required by the Contract for the use of system. With the exception of COTS items, the Purchaser reserves the right to use the Third Party IPR for any number of users and number of licences as required, at no additional cost to the Purchaser.

30.4.3. For COTS items, the Contractor shall be responsible for obtaining licences from the Third Party in line with requirements of the Statement of Work (including number and locations of licences).

30.4.4. Where Third Party IPR is the subject of a licence or other agreement between the third party and the Purchaser or the Contractor, the Contractor shall not use any Third Party IPR for the purposes of carrying out work pursuant to the Contract without the prior written approval of the Purchaser. Contractor shall inform Purchaser in advance of any restrictions on the Purchaser's use.

30.4.5. If, after the award of the Contract, the Contractor becomes aware of the existence of any Third Party IPR which the Contractor is using or believes is needed for the performance of the Contract, the Contractor shall immediately

give the Purchaser a written report identifying such IPR and if they are compliant with the other provisions in the Contract. Any Third Party IPR under this clause is subject to the prior written approval by the Purchaser.

30.4.6. The Purchaser may consider open source solutions alongside proprietary ones in developments provided that such solution are fully compliant with the requirements of this Contract. The Contractor shall disclose in advance the open source license associated with the complemented open source solution. The Purchaser reserves the right to refuse the incorporation of open source solutions that are deemed inadequate for incorporation in a NATO application (e.g. post-back obligations).

30.5. Subcontractor IPR

30.5.1. When placing a Sub-contract which is concerned with or involves the creation of IPR, the Contractor shall ensure that the Sub-contractor enters into the same agreement for the use of the IPR as stipulated in this Contract in such a way that the Purchaser will be entitled to use the IPR as agreed between the Purchaser and the Contractor. The Contractor shall include in the Sub-contract the content of the provisions of this Clause.

31. <u>SOFTWARE WARRANTY</u>

31.1. Statement of the Warranties

31.1.1. The Contractor warrants that each Software delivered under this Contract will conform to all requirements specified in the Contract. This will also include Software design specifications, including software configuration.

31.1.2. Regardless of the Purchaser initiation of or participation in developing Software design or specifications, each Software delivered under this Contract will conform to the essential Performance requirements set forth in this Contract, as those essential Performance requirements measured, tested, and verified by tests and procedures set forth in this Contract.

31.2. Notification Requirement

31.2.1. The Contractor agrees to notify the Purchaser in writing immediately after he first discovers that a defect(s) may exist in Software delivered under this Contract, unless the Purchaser has first notified the Contractor, in writing, of the same defect(s).

31.2.2. The Purchaser shall notify the Contractor upon discovery that a defect(s) may exist in any Software accepted by the Purchaser under this Contract, unless the Contractor has first notified the Purchaser, in writing of the same defect(s).

31.3.   Duration of the Warranty

   31.3.1.   For each Software delivered under this Contract, the Contractor Warranties stated in paragraph 31.1 above shall extend to all defects discovered within 12 months from the date of acceptance of the Software by the Purchaser.

31.4.   Purchaser Remedies for Breach

   31.4.1.   The rights and remedies of the Purchaser under this Software Warranty:

      31.4.1.1.   Are in addition to any rights and remedies of the Purchaser under any other provision of this Contract, including, but not limited to, the Purchaser's rights in relation to latent defects, fraud, or gross mistakes that amount to fraud; and

      31.4.1.2.   Shall apply notwithstanding inspection, acceptance, or any other clauses or terms of this Contract;

   31.4.2.   In the event of any defect as defined herein with respect to a Software delivered under this Contract, the Purchaser, in its sole discretion may:

      31.4.2.1.   Require the Contractor to take such action as may be necessary to eliminate the defect, at no additional cost to the Purchaser for materials, labour, transportation, or otherwise;

      31.4.2.2.   Require the Contractor to supply, at no additional cost to the Purchaser, all materials and instructions necessary for the Purchaser to eliminate the defect and to pay costs reasonably incurred by the Purchaser in taking such action as may be necessary to eliminate the defect, or;

      31.4.2.3.   Equitably reduce the contract price

   31.4.3. The Purchaser may elect the remedies provided in paragraph 31.4.2.1 or 31.4.2.2 above notwithstanding any dispute respecting the existence of or responsibility for any alleged defect as defined herein with respect to any Software delivered under this contract, provided that the Contractor will not be required to pay costs incurred by the Purchaser under paragraph 31.4.2.2 until final determination of the defect. In the event that the alleged defect is subsequently determined not to be a defect subject to this warranty but the Contractor has incurred costs under paragraph 31.4.2.1 and 31.4.2.2 as required by the Contract by virtue of this paragraph 31.4.3, the contract price under this contract shall be equitably adjusted.

   31.4.4. Election by the Purchaser of the remedy provided under paragraph 31.4.2.1 and 31.4.2.2 above shall not preclude subsequent election of a different remedy under paragraph 31.4.2 if the defect is not successfully eliminated under the prior election with one month of the notification under paragraph 31.2 above.

31.5.   Limitations and Exclusions from Warranty Coverage

31.5.1. This Software Warranty shall not apply to alleged defects that the Contractor demonstrates to be in or otherwise attributable to the Purchaser furnished property as determined, tested, and verified by the tests and procedures set forth in this Contract. Notwithstanding this paragraph, a defect is not attributable to Purchaser furnished property if it is the result of installation or modification of Purchaser furnished property by the Contractor or of the integration of Purchaser furnished property into any Software delivered under this Contract.

31.5.2. Any Purchaser Furnished Property needs to be checked and approved by the Contractor. Approval is implied once the Contractor starts using the Purchaser Furnished Property.

31.6. Markings

31.6.1. All Deliverables under this Contract will identify the owner of the Deliverable and if applicable will prominently include, notice of the existence of this warranty, its substance, its duration, and instructions to notify the Purchaser promptly if the Software is found to be defective. The markings should also be included in the operating and/or maintenance manuals or instructions accompanying such Software.

31.6.2. All Deliverables regardless of the media they are delivered onto and which are subject to export control restrictions shall be clearly marked indicating the type and nature of restriction as well as the national law imposing such restrictions. Nothing in this provision is intended to invalidate, void or otherwise limit the rights of the Purchaser under this Contract.

32. NATO CODIFICATION

32.1. For the purposes of this Clause "Technical Data" means the drawings, specifications and technical documentation of those items designated by the Purchaser to support the equipment covered by the Contract, and required to fully identify the items and, if applicable, draft item identifications to the extent and in the form to be agreed between the Codification Authority and the Contractor.

32.2. In order to ensure the orderly identification of equipment, the Contractor shall furnish at the request of the Codification Authority the Technical Data required for the identification of the items of supply to the NATO codification system in the time scale stated in this Contract.

32.3. A recommended spare parts list or a similar data carrier prepared in accordance with instructions provided by the Purchaser as the basis for codification shall be supplied by the Contractor by the date established in this Contract.

32.4. The Contractor shall supply or require his Sub-contractor(s)/supplier(s) to supply on request for the period of time specified in the Contract the relevant Technical Data for all items and sub-contracted items to the Codification Authority and the

Purchaser. The Contractor shall require that each Sub-contractor/supplier shall include identical conditions in any subsequent order which he may place.

32.5. The drawings, specifications, related documentation and, if applicable, draft item identifications, prepared when possible by the true manufacturer of the item, shall be supplied by the Contractor or his Sub-contractor(s)/supplier(s) direct to the Codification Authority and, if required, to the Purchaser as and when they become available or, at the latest within the time limits specified in the Contract. The Contractor shall inform the Codification Authority and Purchaser within twenty-one (21) Days of receipt of the request if the required Technical Data are not immediately available, and shall impose a similar obligation upon his Sub-contractor(s)/supplier(s)

32.6. Except as hereinafter provided, the Contractor shall require the Sub-contractor(s)/supplier(s) to furnish on request the information direct to the Codification Authority in the Sub-contractor(s)/supplier(s)' country, but the Contractor shall remain responsible for ensuring that the information is so furnished. In the event of a Sub-contract order being placed with a manufacturer in a non-NATO country, the Contractor shall be responsible for obtaining Technical Data from the Sub-contractor/supplier and furnishing it to the Purchaser.

32.7. Technical Data relating to any Sub-contractor's/supplier's items shall include but not be limited to the name and address of the true manufacturer(s), his/their true reference number(s), drawing or item Part number(s) and applicable data in addition to any Part or reference number(s) allocated by the Contractor, plus draft item identification(s) if required by the Codification Authority.

32.8. The Contractor shall provide the Technical Data required for codification of those items ordered with this Contract and also for the pertaining support items ordered with future contracts, including updating information regarding all agreed modifications, design or drawing changes made to the equipment or detailed Parts.

32.9. If the Contractor has previously supplied Technical Data (for the purpose stated in Clause 31.2), the Contractor is to state this fact and indicate to whom they were supplied and the Contractor shall not under normal circumstances be required to make a further supply of the Technical Data already provided. The Technical Data furnished by the Contractor and Sub-contractor(s)/supplier(s) are to be presented in accordance with the requirements for the preparation of item identification(s) as outlined in the Guide for Industry provided by the Codification Authority.

32.10. The Contractor should contact the Codification Authority for any information concerning the NATO codification system. This information is to be found at:

"http://www.nato.int/structur/ac/135/ncs_guide/e_guide.htm"

33. <u>RELEASE FROM CLAIMS</u>

33.1. Prior to final payment under this Contract, the Contractor and each assignee under this

Contract shall execute and deliver a release discharging the Purchaser, its officers, agents and employees from all liabilities, obligations and claims arising out of or under this Contract subject only to the following exceptions:

33.1.1. specified claims in stated amounts or in estimated amounts where the amounts are not susceptible to exact statement by the Contractor;

33.1.2. claims for reimbursement of costs (other than expenses of the Contractor by reason of his indemnification of the Purchaser against patent liability) including reasonable expenses incidental thereto, incurred by the Contractor under the provisions of this Contract relating to patents.

33.1.3. a patent infringement resulting from specific written instructions from the Purchaser under this Contract.

33.1.4. a patent infringement resulting from changes or additions to the goods and services subsequent to final delivery and acceptance under this Contract.

34. ASSIGNMENT OF CONTRACT

34.1. The Purchaser reserves the right to assign this Contract, in whole or in part, to another NATO body, agency or representative within NATO or NATO Nations. In such a case, the Purchaser shall notify the Contractor accordingly in writing.

34.2. NATO shall remain responsible for its obligations under the Contract and for the actions of the body, agency or representative to which this Contract may be assigned.

35. TRANSFER AND SUB-LETTING

35.1. The Contractor shall not give, bargain, sell, assign, sub-let or otherwise dispose of the Contract or any part thereof or the benefit or advantage of the Contract or any part thereof without the prior written consent of the Purchaser.

36. PURCHASER DELAY OF WORK

36.1. If the performance of all or any part of the Work is delayed or interrupted by an act of the Purchaser in the administration of this Contract, which act is not expressly or implicitly authorised by this Contract, or by the Purchaser's failure to act within the time specified in this Contract (or within a reasonable time if no time is specified), an adjustment shall be made for any increase in the cost of performance of this Contract caused by such delay or interruption and the Contract modified in writing accordingly.

36.2. Adjustment shall be made also in the delivery or performance dates and any other contractual provision affected by such delay or interruption. However, no adjustment shall be made under this Clause for any delay or interruption:

36.2.1. to the extent that performance would have been delayed or interrupted by any other cause, including the fault or negligence of the Contractor; or

36.2.2. for which an adjustment is provided or excluded under any other provision of this Contract.

36.3. No claim under this Clause shall be allowed:

36.3.1. if the Contractor has failed to notify the Purchaser in writing of the act or failure to act, indicating that this act or failure to act will result in a delay or increased costs;

36.3.2. for any costs incurred more than twenty (20) Days before the Contractor shall have notified the Purchaser in writing of the act or failure to act involved; and

36.3.3. unless the monetary claim, in an amount stated, is asserted in writing as soon as practicable after the termination of such delay or interruption, but not later than the date of final payment under the Contract.

37. <u>CONTRACTOR NOTICE OF DELAY</u>

37.1. In the event that the Contractor encounters difficulty in complying with the Contract schedule date(s) for whatever reason, including actual or potential labour disputes, the Contractor shall immediately notify the Contracting Authority in writing, giving pertinent details. This data shall be deemed to be informational in character and shall not be construed as a waiver by the Purchaser of any schedule or date, or of any rights or remedies provided by law or under this Contract.

37.2. Notwithstanding the above the Contractor shall be deemed to be in delay without notice from the Purchaser and only by simple expiry of the due date.

38. <u>LIQUIDATED DAMAGES</u>

38.1. If the Contractor:

38.1.1. fails to meet the delivery schedule of the Work or any performance milestones specified in the Schedule of Work to this Contract, or any extension thereof, or

38.1.2. fails to obtain acceptance of the delivered Work as specified in the Contract, or, if no time for acceptance is specified in the contract within a reasonable time after work is delivered,

the actual damage to the Purchaser for the delay will be difficult or impossible to determine. Therefore, in lieu of actual damages the Contractor shall pay to the Purchaser, for each day of delinquency in achieving the deadline or milestone, fixed and agreed liquidated damages of 1.0% (one per cent) per day of the associated payment set forth in the Schedule of Payments provided in the Special Contract Provisions. If no Schedule of Payments is specifically set forth in the Special Contract Provisions, the liquidated damages will be assessed against the price of the applicable contract line item (CLIN) of the Schedule of Supplies, Services and Prices.

38.2. In addition to the liquidated damages referred to above, the Purchaser shall have the possibility of terminating this Contract in whole or in part, as provided in Clause 39 (Termination for Default). In the event of such termination, the Contractor shall be liable to pay the excess costs provided in Clause 38.5.

38.3. The Contractor shall not be charged with liquidated damages when the delay arises out of causes beyond the control and without the fault or negligence of the Contractor as defined in Clause 39.6 (Termination for Default). In such event, subject to the provisions of Clause 41 (Disputes), the Purchaser shall ascertain the facts and extent of the delay and shall extend the time for performance of the Contract when in his judgement the findings of the fact justify an extension.

38.4. Liquidated damages shall be payable to the Purchaser from the first day of delinquency and shall accrue at the rate specified in Clause 38.1 to 20% of the value of each line item individually and an aggregate sum of all delinquent items not to exceed 15% of the value of the total Contract. These liquidated damages shall accrue automatically and without any further notice being required.

38.5. The rights and remedies of the Purchaser under this clause are in addition to any other rights and remedies provided by law or under this Contract.

39. TERMINATION FOR DEFAULT

39.1. The Purchaser may, subject to Clause 39.6 below, by written notice of default to the Contractor, terminate the whole or any part of this Contract if the Contractor, inclusive but not limited to:

39.1.1. fails to make delivery of all or part of the Work within the time specified in the contract or any agreed extension thereof;

39.1.2. fails to make progress as to endanger performance of this Contract in accordance with its terms;

39.1.3. fails to meet the technical requirements or the Specifications of the Contract;

39.1.4. fails to comply with Clause 11 (Security);

39.1.5. transfer this Contract without the Purchaser's prior written consent;

39.1.6. breaches any provision of this Contract; or

39.2. In the case of any of the circumstances set forth in Clause 39.1 above, the Purchaser shall issue a letter to the Contractor stating that an actual or potential default exists and requiring a response from the Contractor within ten (10) Days that identifies:

39.2.1. in the case of late delivery of Work, when the Contractor shall deliver the Work and what circumstances exist which may be considered excusable

delays under Clause 39.6.

39.2.2. in the case of the other circumstances identified in Clause 39.1 above, what steps the Contractor is taking to cure such failure(s) within a period of ten Days (or such longer period as the Purchaser may authorise in writing) after receipt of notice in writing from the Purchaser specifying such failure and identifying any circumstances which exist which may be considered excusable under Clause 39.6.

39.3. The Purchaser shall evaluate the response provided by the Contractor or, in the absence of a reply within the time period mentioned in Clause 39.2, all relevant elements of the case, and make a written determination within a reasonable period of time that:

39.3.1. sufficient grounds exist to terminate the Contract in whole or in part in accordance with this Clause and that the Contract is so terminated;

39.3.2. there are mitigating circumstances and the Contract should be amended accordingly; or

39.3.3. the Purchaser will enter a period of forbearance in which the Contractor must show progress, make deliveries, or comply with the Contract provisions as specified by the Purchaser. The Purchaser may apply other remedial actions as provided by this Contract during such period of forbearance. This period of forbearance shall in no event constitute a waiver of Purchaser's rights to terminate the Contract for default.

39.4. At the end of the period of forbearance, which may be extended at the Purchaser's discretion, the Purchaser may terminate this Contract in whole or in part as provided in Clause 39.1 if the Contractor has not made adequate progress, deliveries or compliance with the Contract provisions which were the terms of the period of forbearance.

39.5. In the event the Purchaser terminates this Contract in whole or in part, as provided in Clause 39.1, the Purchaser may procure, upon such terms and in such manner as the Purchaser may deem appropriate, Work similar to those so terminated, and the Contractor shall be liable to the Purchaser for any excess costs for such similar Work; however, the Contractor shall continue the performance of this Contract to the extent not terminated under the provisions of this clause.

39.6. Except with respect to the default of Sub-contractors, the Contractor shall not be held liable for a termination of the Contract for default if the failure to perform the Contract arises out of causes beyond the control and without the fault or negligence of the Contractor.

39.6.1. Such causes may include, but are not restricted to, acts of God, acts of the public enemy, acts of the Purchaser in its contractual capacity, acts of sovereign governments which the Contractor could not reasonably have anticipated, fires, floods, epidemics, quarantine restrictions, strikes, freight embargoes, and unusually severe weather; but in every case the failure to perform must be beyond the control and without the fault or negligence of

the Contractor.

39.6.2. If the failure to perform is caused by the default of a Sub-contractor, and if such default arises out of causes beyond the control of both the Contractor and Sub-contractor, without the fault or negligence of either of them, the Contractor shall not be held liable for a termination for default for failure to perform unless the Work to be furnished by the Sub-contractor were obtainable from other sources in sufficient time to permit the Contractor to meet the required delivery schedule.

39.7. If this Contract is terminated as provided in Clause 39.1, the Purchaser, in addition to any other rights provided in this Clause and the Contract, may require the Contractor to transfer title and deliver to the Purchaser, in the manner and to the extent directed by the Purchaser:

39.7.1. any completed Work with associated rights ;

39.7.2. such partially completed Work, materials, Parts, tools, dies, jigs, fixtures, plans, drawings, information, and Contract rights (hereinafter called "Manufacturing materials") with associated rights as the Contractor has specifically produced or specifically acquired for the performance of such part of this Contract as has been terminated;

39.8. In addition to Clause 39.7, the Contractor shall, upon direction of the Purchaser, protect and preserve property in the possession of the Contractor in which the Purchaser has an interest.

39.9. Payment for completed Work delivered to and accepted by the Purchaser shall be at the Contract price.

39.10. Payment for manufacturing materials delivered to and accepted by the Purchaser and for the protection and preservation of property shall be in an amount agreed upon by the Contractor and Purchaser, failure to agree to such amount shall be a dispute within the meaning of Clause 41 (Disputes).

39.11. The Purchaser may withhold from amounts otherwise due to the Contractor for such completed Work or manufacturing materials such sum as the Purchaser determines to be necessary to protect the Purchaser against loss because of outstanding liens or claims of former lien holders.

39.12. If, after notice of termination of this Contract under the provisions of this Clause, it is determined for any reason that the Contractor was not in default under the provisions of this Clause, or that the default was excusable under the provisions of this Clause, the rights and obligations of the Parties shall be the same as if the notice of termination had been issued pursuant to Clause 40 (Termination for the Convenience of the Purchaser).

39.13. If after such notice of termination of this Contract under the provisions of this Clause, it is determined for any reason that the Contractor was not in default under the provisions of this Clause and that the Parties agree that the Contract should be

continued, the Contract shall be equitably adjusted to compensate for such termination and the Contract modified accordingly. Failure to agree to any such adjustment shall be a dispute within the meaning of Clause 41 (Disputes).

39.14.   The rights and remedies of the Purchaser provided in this Clause shall not be exclusive and are in addition to any other rights and remedies provided by law or under this Contract.

40.   **TERMINATION FOR THE CONVENIENCE OF THE PURCHASER**

40.1.   The performance of Work under this Contract may be terminated by the Purchaser in accordance with this Clause in whole, or from time to time in part, whenever the Purchaser shall determine that such termination is in the best interest of the Purchaser.

40.2.   Any such termination shall be effected by delivery to the Contractor of a written notice of termination, signed by the Contracting Authority, specifying the extent to which performance of Work under the Contract is terminated, and the date upon which such termination becomes effective.

40.3.   After receipt of a Notice of Termination and except as otherwise directed by the Contracting Authority, the Contractor shall:

40.3.1.   stop the Work on the date and to the extent specified in the notice of termination;

40.3.2.   place no further orders or Sub-contracts for Work, Parts, materials, services or facilities, except as may be necessary for completion of such portion of the Work under the Contract as is not terminated;

40.3.3.   terminate all orders and Sub-contracts to the extent that they relate to the performance of Work terminated by the Notice of Termination;

40.3.4.   assign to the Purchaser, in the manner, at the times and to the extent directed by the Purchaser, all of the right, title and interest of the Contractor under the orders and Sub-contracts so terminated, in which case the Purchaser shall have the right, in its discretion, to settle or pay any or all claims arising out of the termination of such orders and Sub-contracts;

40.3.5.   settle all outstanding liabilities and all claims arising out of such termination of orders and Sub-contracts, with the approval or ratification of the Purchaser to the extent he may require, which approval or ratification shall be final for all the purposes of this Clause;

40.3.6.   transfer title and deliver to the Purchaser in the manner, at the times, and to the extent, if any, directed by the Contracting Authority of:

40.3.6.1.   the fabricated parts, work in process, completed work, Work, and other material produced as a part of, or acquired in

connection with the performance of the Work terminated by the notice of termination, and

    40.3.6.2.   the completed or partially completed plans, drawings, information, and other property which, if the Contract had been completed, would have been required to be furnished to the Purchaser;

40.3.7.   use his best efforts to sell, in the manner, at the times, to the extent, and at the price or prices directed or authorised by the Contracting Authority, any property of the types referred to in Clause 40.3.6 above. However, the Contractor:

    40.3.7.1.   shall not be required to extend credit to any Buyer; and

    40.3.7.2.   may acquire any such property under the conditions prescribed by and at a price or prices approved by the Purchaser; and provided further that the proceeds of any such transfer or disposition shall be applied in reduction of any payments to be made by the Purchaser to the Contractor under this Contract or shall otherwise be credited to the price or cost of the Work or paid in such manner as the Contracting Authority may direct;

40.3.8.   complete performance of such part of the Work as shall not have been terminated by the Notice of Termination; and

40.3.9.   take such action as may be necessary, or as the Purchaser may direct, for the protection and preservation of the property related to this Contract which is in the possession of the Contractor and in which the Purchaser has or may acquire an interest.

40.4.   The Contractor may submit to the Purchaser a list, certified as to quantity and quality, of any or all items of termination inventory not previously disposed of, exclusive of items the disposition of which has been directed or authorised by the Purchaser, and may request the Purchaser to remove such items or enter into a storage agreement covering the same; provided that the list submitted shall be subject to verification by the Purchaser upon removal of the items, or if the items are stored, within forty-five (45) Days from the date of submission of the list, and any necessary adjustment to correct the list as submitted shall be made prior to final settlement.

40.5.   After receipt of a notice of termination, the Contractor shall submit to the Purchaser his termination Claim for the Work covered by the notice of termination, in the form and with certification prescribed by the Purchaser. Such claim shall be submitted promptly but in no event later than six (6) months from the effective date of termination, unless one or more extensions are granted in writing by the Purchaser, upon request of the Contractor made in writing within such six-month period or authorised extension thereof. However, if the Purchaser determines that the facts justify such action, the Purchaser may receive and act upon any such termination claim

at any time after such six-month period or any extension thereof. Upon failure of the Contractor to submit his termination claim within the time allowed, the Purchaser may determine on the basis of information available to him, the amount, if any, due to the Contractor by reason of the termination and shall thereupon pay to the Contractor the amount so determined.

40.6.   Subject to the provisions of Clause 40.5, the Contractor and the Purchaser may agree upon the whole or any part of the amount or amounts to be paid to the Contractor by reason of the total or partial termination of Work pursuant to this Clause, which amount or amounts may include a reasonable allowance for profit on work done; provided that such agreed amount or amounts exclusive of settlement costs shall not exceed total Contract price as reduced by the amount of payments otherwise made and as further reduced by the Contract price of the Work not terminated. The Contract shall be amended accordingly and the Contractor shall be paid the amount agreed.

40.7.   In the event of the failure of the Contractor and the Purchaser to agree as provided in Clause 40.6 upon the whole amount to be paid to the Contractor by reason of the termination of Work pursuant to Clause 40, the Purchaser shall pay to the Contractor the amounts determined by the Purchaser as follows, but without duplication of any amounts agreed upon in accordance with Clause 40.6 the total of:

40.7.1.   for completed Work accepted by the Purchaser (or sold or acquired as provided in Clause 40.3 above) and not therefore paid for, a sum equivalent to the aggregate price for such Work computed in accordance with the price or prices specified in the Contract, appropriately adjusted for any saving of freight or other charges;

40.7.2.   the costs incurred in the performance of the Work terminated including initial costs and preparatory expense allocable thereto, but exclusive of any costs attributable to Work paid or to be paid for under Clause 40.7.1;

40.7.3.   the cost of settling and paying claims arising out of the termination of work under Sub-contracts or orders, as provided in Clause 40.3.5, which are properly chargeable to the terminated portion of the Contract, exclusive of amounts paid or payable on account of Work or materials delivered or services furnished by Sub-contractors or vendors prior to the effective date of the notice of termination, which amounts shall be included in the costs payable under Clause 40.7.2; and

40.7.4.   a sum, as profit on Clause 40.7.1 above, determined by the Purchaser to be fair and reasonable; provided, however, that if it appears that the Contractor would have sustained a loss on the entire Contract, had it been completed, no profit shall be included or allowed and an appropriate adjustment shall be made reducing the amount of the settlement to reflect the indicated rate of loss; and

40.7.5.   the reasonable costs of settlement, including accounting, legal, clerical and other expenses reasonably necessary for the preparation of settlement claims

and supporting data with respect to the terminated portion of the Contract and for the termination and settlement of Sub-contracts there under, together with reasonable storage, transportation, and other costs incurred in connection with the protection, or disposition of property allocable to this Contract.

40.8.   The total sum to be paid to the Contractor under Clause 40.7 shall not exceed the total Contract price as reduced by the amount of payments otherwise made and as further reduced by the Contract price of Work not terminated.

40.9.   Except for normal spoilage, and except to the extent that the Purchaser shall have otherwise expressly assumed the risk of loss, there shall be excluded from the amounts payable to the Contractor, as provided in Clause 40.7 above, the fair value, as determined by the Purchaser, of property which is destroyed, lost, stolen, or damaged so as to become undeliverable to the Purchaser, or to a buyer pursuant to Clause 40.3.7 above.

40.10.   The Contractor shall have the right to dispute, under the Clause 41 (Disputes), any determination made by the Purchaser under Clauses 40.5 and 40.7, except that if the Contractor has failed to submit his claim within the time provided in Clause 40.5 and has failed to request extension of such time, the Contractor shall be foreclosed from his right to dispute said determination. In any case where the Purchaser has made a determination of the amount due under Clauses 40.5 and 40.7, the Purchaser shall pay the Contractor the following:

40.10.1. if there is no right of appeal hereunder or if no timely appeal has been taken, the amount so determined by the Purchaser, or

40.10.2. if an appeal has been taken, the amount finally determined on such appeal.

40.11.   In arriving at the amount due to the Contractor under this Clause there shall be deducted:

40.11.1. all unliquidated advance or other payments on account theretofore made to the Contractor, applicable to the terminated portion of this Contract;

40.11.2. any claim which the Purchaser may have against the Contractor in connection with this Contract; and

40.11.3. the agreed price for, or the proceeds of the sale of, any materials, Work, or other things acquired by the Contractor or sold, pursuant to the provisions of this Clause, and not otherwise recovered by or credited to the Purchaser.

40.12.   If the termination hereunder is partial, prior to the settlement of the terminated portion of this Contract, the Contractor may file with the Purchaser, in accordance with Clause 16 (Changes), a request in writing for an equitable adjustment of the price or prices relating to the continued portion of the Contract (the portion not terminated by the notice of termination), and such equitable adjustment as may be agreed upon shall be made in such price or prices.

40.13. The Purchaser may from time to time, under such terms and conditions as it may prescribe, make partial payments and payments on account against costs incurred by the Contractor in connection with the terminated portion of this Contract whenever in the opinion of the Purchaser the aggregate of such payments shall be within the amount to which the Contractor will be entitled hereunder. If the total of such payment is in excess of the amount finally agreed or determined to be due under this Clause, such excess shall be payable by the Contractor to the Purchaser upon demand, together with interest calculated using the average of the official base rate(s) per annum of the deposit facility rate as notified by the European Central Bank or such other official source as may be determined by the Purchaser, for the period from the date the excess is received by the Contractor to the date such excess is repaid to the Purchaser, provided, however, that no interest shall be charged with respect to any such excess payment attributed to a reduction in the Contractor's claim by reason of retention or other disposition of termination inventory until ten days after the date of such retention or disposition or such later date as determined by the Purchaser by reason of the circumstances.

40.14. Unless otherwise provided for in this Contract, the Contractor, from the effective date of termination and for a period of three years after final settlement under this Contract, shall preserve and make available to the Purchaser at all reasonable times at the office of the Contractor, but without direct charge to the Purchaser, all his books, records, documents, computer files and other evidence bearing on the costs and expenses of the Contractor under this Contract and relating to the work terminated hereunder, or, to the extent approved by the Purchaser, photographs, micro-photographs, or other authentic reproductions thereof.

41. <u>DISPUTES</u>

41.1. Except to the extent to which special provision is made elsewhere in the Contract, all disputes, differences or questions which are not disposed of by agreement between the Parties to the Contract with respect to any matter arising out of or relating to the Contract, other than a matter as to which the decision of the Contracting Authority under the Contract is said to be final and conclusive, shall be decided by the Contracting Authority. The Contracting Authority shall reduce his decision to writing and mail or otherwise furnish a copy thereof to the Contractor.

41.2. The Contracting Authority shall not proceed with the evaluation and decision in respect of any claim until and unless the Contractor has submitted the attestation as foreseen in Clause 18 (Claims), as well as the complete proof and evidence of the claim (either by submission or by identification of the relevant documentation).

41.3. The Contracting Authority's decision shall be final and conclusive unless, within 30 Days from the date of receipt of such copy, the Contractor mails or otherwise furnishes to the Contracting Authority his decision to open arbitration proceedings in accordance with the Clause 42 (Arbitration). The burden of proof for both receipt and delivery of such documentation shall be by signed and dated registered mail receipt or by hand receipt as acknowledged and signed by the Contracting Authority.

41.4.   Pending final decision of a dispute, the Contractor shall proceed diligently with the performance of the Contract, unless otherwise instructed by the Contracting Authority.

42.   ARBITRATION

42.1.   Within a period of thirty days from the date of receipt of the notification referred to in Clause 41.3 above, the Parties shall jointly appoint an arbitrator. In the event of failure to appoint an arbitrator, the dispute or disputes shall be submitted to an Arbitration Tribunal consisting of three arbitrators, one being appointed by the Purchaser, another by the other contracting party and the third, who shall act as President of the Tribunal, by these two arbitrators. Should one of the Parties fail to appoint an arbitrator during the fifteen days following the expiration of the first period of thirty days, or should the two arbitrators be unable to agree on the choice of the third member of the Arbitration Tribunal within thirty days following the expiration of the said first period, the appointment shall be made, within twenty-one days, at the request of the Party instituting the proceedings, by the Secretary General of the Permanent Court of Arbitration at The Hague.

42.2.   Regardless of the procedure concerning the appointment of this Arbitration Tribunal, the third arbitrator will have to be of a nationality different from the nationality of the other two members of the Tribunal.

42.3.   Any arbitrator must be of the nationality of any one of the member states of NATO and shall be bound by the rules of security in force within NATO.

42.4.   Any person appearing before the Arbitration Tribunal in the capacity of an expert witness shall, if he is of the nationality of one of the member states of NATO, be bound by the rules of security in force within NATO. If he is of another nationality, no NATO classified documents or information shall be communicated to him.

42.5.   An arbitrator, who, for any reason whatsoever, ceases to act as an arbitrator, shall be replaced under the procedure laid down in Clause 42.1 above.

42.6.   The Contractor agrees to submit to the Arbitration Tribunal only such issues, facts, evidence and proof which the Contractor had beforehand identified and submitted to the Contracting Authority for decision in accordance with Clause 41 (Disputes). The jurisdictional authority of the Arbitration Tribunal shall be restricted to consider only those identical issues, facts, evidence and proof so identified and submitted to the Contracting Authority.

42.7.   The Purchaser likewise agrees to restrict its submissions only to the information on which the Contracting Authority based its decision and not to introduce new information and arguments which cannot reasonably be deduced or inferred from the written decision of the Contracting Authority in response to the original dispute.

42.8.   The Arbitration Tribunal will take its decisions by a majority vote. It shall decide where it will meet and, unless it decides otherwise, shall follow the arbitration

procedures of the International Chamber of Commerce in force at the date of signature of the present Contract.

42.9.   The awards of the arbitrator or of the Arbitration Tribunal shall be final and there shall be no right of appeal or recourse of any kind. These awards shall determine the apportionment of the arbitration expenses.

42.10. Pending final decision of a dispute, the Contractor shall proceed diligently with the performance of the Contract, unless otherwise instructed by the Contracting Authority.

43.   SEVERABILITY

43.1.   If one or more of the provisions of this Contract is declared to be invalid, illegal or unenforceable in any respect under any applicable law, the validity, legality and enforceability of the remaining provisions shall not be affected. Each of the Parties shall use its best efforts to immediately and in good faith negotiate a legally valid replacement provision.

44.   APPLICABLE LAW

44.1.   This Contract shall be governed, interpreted and construed in accordance with the private contract law of the Kingdom of Belgium.

*   *

ANNEX 1 TO GENERAL PROVISONS

PURCHASER'S PRICING PRINCIPLES

A.   General

1. With regard to all actions included in Clause 19, 'Pricing of Changes, Amendments and Claims', the Purchaser will honour the accounting standards and pricing principles to which the Contractor is required to conform by the national defence authority (or other governing national authority, as applicable) in the country of origin of the Contractor. Where such accounting standards are non-existent or incomplete, or where the Contractor is not required to conform to such standards and principles, the Parties agree that the Purchaser's Pricing Principles contained herein shall govern.

2. As may be requested by the Purchaser, the Contractor shall provide documentation that the standards or principles employed in the submission of cost or pricing data are in conformance with governing national policies and regulation. The Contractor, when submitting a price proposal based upon national standards and regulations, shall provide a point of contact within the national body governing such standards and regulations in order to allow Purchaser verification and audit.

3. Where such conformance cannot be demonstrated to the satisfaction of the Purchaser, the Purchaser's Pricing Principles will govern.

4. The Contractor shall clearly state whether national standards and rules or the Purchaser's Pricing Principles and formats are the basis for the price proposal.

5. Whether national standards or Purchaser pricing principles are applied, all cost and pricing data shall be verifiable, factual and include information reasonably required to explain the estimating process.

6. The Contractor shall also incorporate provisions corresponding to those mentioned herein in all sub-contracts, and shall require price and cost analysis provisions be included therein.

B.   Purchaser's Pricing Principles

1.   <u>Allowable cost</u>

A cost is allowable for consideration by the Purchaser if the following conditions are fulfilled:

(a) it is incurred specifically for the Contract or benefits both the Contract and other work or is necessary to the overall operation of the business although a direct relationship to any particular product or service cannot be established and is allocated to them in respective proportion according to the benefit received;

i. Direct Costs
A direct cost is any cost which can be identified specifically with a particular cost objective as generally accepted. Direct costs are not limited to items which are incorporated in the end product as material or labour.

ii.   Indirect Costs
An indirect cost is one which is not readily subject to treatment as a direct cost. When presented these costs shall be accumulated in logical cost groupings in accordance with sound accounting principles and the Contractor's established practices. An indirect cost may be allocated to more than one final cost objective. An indirect cost shall not be allocated to a final cost objective if other costs incurred for the same purpose, in like circumstances, have been included as a direct cost of that or any other final cost objective. Such costs shall be presented as overhead rates and be applied to each related direct cost grouping as presented in sub- paragraph 5 hereafter.

(b) The Contractor shall specify the allocation of costs to either of the cost groupings. The method by which costs are accumulated and distributed as part of direct or indirect costs cannot be modified during the duration of the Contract.

(c) it is reasonable and expedient in its nature and amount and does not exceed that which would be incurred by an ordinary prudent person in the conduct of competitive business;

(d)   it is not liable to any limitations or exclusion as to types or amounts of cost items as set forth herein.

(e) The Purchaser will review other costs presented against the contract and will determine if they would be allowable.

2.   Unallowable Costs

In general all costs which cannot be shown by the contractor to be directly or indirectly of benefit to the Contract are totally unallowable. Examples of such costs are, among others:

(a)   Advertising costs

(b)   Costs of remuneration, having the nature of profit sharing.

(c)   Costs of maintaining, repairing and housing idle and excess facilities.

(d)   Fines and penalties as well as legal and administrative expenses resulting from a violation of laws and regulations.

(e)   Losses on other contracts or on expected follow-on contracts

(f)   Costs incurred for the creation of reserves for general contingencies or other reserves (e.g. for bad debts, including losses).

(g)   Losses on bad debts, including legal expenses and collection costs in connection with bad debts.

(h)   Costs incurred to raise capital.

(i)   Gains and losses of any nature arising from the sale or exchange of capital assets other than depreciable property.

(j)   Taxes on profits.

(k)   Contractual penalties incurred.

(l)   Commissions and gratuities.

(m)   Interest on borrowings.

3.   Rates and Factors

   (a) The Contractor shall inform the Purchaser of his rates and factors the basis upon which they were computed.

   (b) If the Contractor's rates and factors for similar contracts placed with national or international public services have not been established or approved by a

government agency or an agency accepted by his government, the Contractor shall provide the necessary data to support the proposed rates.

(c) The term "provisional " used in the title of a rate or factor means a tentative rate established for interim billing purposes pending negotiation and agreement to the final rate or factor.

(d) A rate or factor is pre-determined if it is fixed before or during a certain period and based on (estimated) costs to be incurred during this period. A rate or factor is post-determined if it is fixed after a certain period and based on costs actually incurred during this period. Pre-determined rates or factors shall be agreed upon as final rates whenever possible; otherwise the provisions of paragraph 3c above shall apply pending agreement to post-determined rates or factors.

(e) Such rates or factors shall be determined on the basis of Contractor's properly supported actual cost experience.

(f) If the rates or factors of the Contractor for similar contracts placed by national or international public services have been established or approved by a government agency or an agency accepted by his government and the Contractor proposes the application of these rates, he shall state the name and address of the agency which has accepted or approved the rates and the period for which they were established. If he proposes rates which vary from the rates mentioned above, he shall furthermore provide a justification for the difference.

4. Profit/Benefit

(a) Over the entire life cycle of a given acquisition, Profit and/or Benefit may be subject to negotiation.

(b) Subcontracting profit/benefit amounts are dependent upon the size, nature and oversight needs of the subcontract(s) the prime contractor will use for work performance period.

(c) Profit/benefit is considered by the Purchaser to be directly related to the anticipated risk of the Contractor during the performance of the Contract.

IFB-CO-15049-BITI

CUR 1896

TECHNICAL REFRESH OF BALKANS IT INFRASTRUCTURE (BITI)

BOOK II - PART IV

STATEMENT OF WORK (SOW)

TABLE OF CONTENTS

TABLE OF FIGURES

SECTION 1. INTRODUCTION

1.1. Background

1.1.1. The purpose of this project is to provide a technical refresh of the Balkans Information Technology (IT) Infrastructure, replacing obsolete hardware and unsupported software supporting Communications and Information Systems (CIS) on the NU, NS and MS networks. The CIS supports the NATO and EUFOR missions in the BALKANS Joint Operations Area (JOA) and at supporting headquarters at SHAPE (EUSG) and NAPLES (EUCE).

1.1.2. Project tasks include the implementation of:

- Approximately 250 major network equipment items;

- Approximately 80 major server and storage equipment items;

- Server virtualisation technology;

- Voice over IP (VoIP) technology

- Improved IT resiliency

- Latest NATO IT architecture and standards

1.1.3. The SOW describes the scope of the project deliverables to be provided by the Contractor which includes Core Contract tasks and Optional Level of Effort (LoE) Engineering Support for additional engineering activities.

1.1.4. The SOW describes the Contractors priorities for delivering the project against a defined schedule and milestones.

1.2. Scope

1.2.1 The Contractor shall, provide, install and configure the equipment and services at the locations as detailed in table 1 and as described in Annex A SRS of the SOW.

1.2.2 The Contractor shall implement the equipment and services with the assistance of the Purchaser.

1.2.3 The Contractor as part of his project organisation and scope shall provide qualified personnel meeting the requirements described in Annex C to deliver the contract scope as described herein.

1.2.4 Additional engineering support shall be made available on a Level of Effort (LoE) basis to provide engineering support for Migration, Security Accreditation and Post Migration Support tasks which will be ordered (if required) in accordance with the task ordering process detailed at Clause 29 of the Contract Special Provisions. Each specific role and its requirements can be satisfied through more than one professional (up to 5 professionals to complete requirements) that can fulfil the overall job description.

1.2.5 After the site surveys have been completed The Purchaser shall issue Task Orders (TOs) to the Contractor requesting qualified personnel needed to perform Migration, Security Accreditation and Post Migration Support tasks for a minimum of five (5) working days per person.

1.2.6   The Contractor shall perform the design activities described in Section 4.2 of the SOW with assistance from of the Purchaser.

1.2.7   The Contractor shall perform the implementation activities as described in Section 4.3 of the SOW.

1.2.8   The Contractor shall deliver the project respecting the following factors:

   a. The project will deliver to 2 main end customers, NATO and EU(Network segments and locations of EU only implementation)

   b. The Purchaser will maintain communication and relationship with the 2 end customers.

   c. The Contractor shall separate project costs to reflect clearly the cost separation between the 5 funding streams, EUFOR (Evaluated option), NATO CUR 1896, CUR 1911 (Evaluate option), CUR 1904 (Non-evaluated option), CUR 2025 (Non-evaluated option) and maintain cost and billing traceability throughout the lifecycle of the overall project.

   d. The Evaluated and non-evaluated options, if accepted, shall become part of the project scope and will need to be incorporate in all project deliverables, including documentation.

   e. The non-evaluated options shall include the labour and travel costs in order to deliver, Project management, Design and Implementation as well as PSA and FSA for the respective scope.

1.2.9   The Evaluated and non-evaluated options shall follow the SOW provisions and requirements once accepted.

1.2.10   The Contractor shall provide training as defined in 5.10 Training.

1.2.11   The Contractor shall be responsible for testing the solution as depicted in Section 6 of the SOW.

1.2.12   The Contractor shall be responsible for assisting the Purchaser in updating and maintaining security accreditation documentation, and supporting the Purchaser in gaining security accreditation. Further details are provided in Section 9 of the SOW.

1.2.13   The Contractor shall provide Integrated Logistics Support as defined in SECTION 5.

1.2.14   The Contractor shall provide Quality assurance as described in Section 7.

1.2.15   The Contractor shall provide Configuration management as described in Section 8.The Contractor shall provide key personnel to support all elements of delivering the project as per Annex C.

1.2.16   The Contractor shall fully document the design, operation and maintenance of the Balkans IT Technical Refresh.

Locations	MS	NS	NU
KFOR HQ, Camp Film City, Pristina, Kosovo (*) • Main location with 2 Server Rooms for resiliency	YES	YES	YES
MNBG-E (Multinational Battle Group East), Camp Bondsteel, Urosevac, Kosovo.	YES	YES	YES
MNBG-W (Multinational Battle Group West) Camp Villagio Italia, Kosovo.	YES	YES	YES
JRD-N (Joint Regional Detachment North), KTRBN, ISR, FCP, Camp Novo Selo, North Macedonia.	YES	YES	YES
MSU (Multinational Specialized Unit), Camp MSU, Pristina. Kosovo	YES	YES	YES
CNH (Camp Nothing Hill) FCP, Kosovo	YES	NO	YES
APOD (Aerial Port of Debarkation), Salitina, Kosovo	YES	YES	YES
COMMZ-S (Communication Zone South) Thessaloniki, Greece.	NO	YES	YES
NLO (NATO Liaison Office), Skopje, Republic of North Macedonia.+ Camp Petrovac	NO	NO	YES
MLO (Military Liaison Office) Belgrade, Serbia.	NO	NO	YES
EUFOR/NHQ, Camp Butmir, Sarajevo, Bosnia & Herzogovnia (*)	YES	YES	YES
MOD, Bistrik, Sarajevo, Bosnia & Herzogovnia	NO	NO	YES
EUSG, SHAPE, Mons, Belgium	YES	NO	NO
EUCE, JFC Naples, Lago Patria, Italy	YES	NO	NO

Table 1 Locations and Networks to be implemented

(*) Priority Sites for Implementation

1.3. Standards for Interpretation of the SOW

1.3.1   Whenever requirements are stated to "include" a group of items, parameters, or other considerations, "include" means "including but not limited to".

1.3.2   Whenever reference is made to a section or paragraph, the reference includes all subordinate and referenced sub-paragraphs.

1.3.3   The term "Contractor" means the entire Contractor/sub-Contractor(s) organization. All requirements in this SOW which would apply to the Contractor's activities apply equally to sub-Contractor activities.

1.3.4   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 the activities the Contractor's process shall cover. The Contractor's Purchaser Approved implementation plans determine the timing of detailed activities as reflected in the Schedule of Supplies and Services (SSS).

SECTION 2. APPLICABLE DOCUMENTS

The Contractor shall be aware and comply with the documents listed in SECTION 2 throughout the Contract.

2.1. Reference documents for Quality Assurance purposes

Abbreviation	Full document Name and Reference
[STANAG 4107, Ed.11]	Mutual Acceptance of Government Quality Assurance and Usage of the Allied Quality Assurance Publications. Ed.11, 2019.
[AQAP-4107, Ed.A, Ver.2]	Mutual Acceptance of Government Quality Assurance and Usage of the Allied Quality Assurance Publications (AQAP). Ed. A, Ver.2, 2018.
[AQAP-2000, Ed.3]	NATO Policy on an Integrated System Approach to Quality Through the Life Cycle. Ed.3, 2009.
[AQAP-2070, Ed.B, Ver.3]	NATO Mutual Government Quality Assurance (GQA). Ed.B, Ver.3, 2015.
[AQAP-2105, Ed.C, Ver.1]	NATO Requirements for Quality Plans. Ed.C, Ver.1, 2019.
[AQAP-2110, Ed.D, Ver.1]	NATO Quality Assurance Requirements for Design, Development and Production. Ed.D, Ver.1, 2016.
[AQAP-2131, Ed.C, Ver.1]	NATO Quality Assurance Requirements for Final Inspection and Test. Ed.C, Ver.1, 2017.
[AQAP-2210, Ed.A, Ver.2]	NATO Supplementary Software Quality Assurance Requirements to AQAP-2110 or AQAP-2310. Ed.A, Ver.2, 2015.
[AQAP-2310, Ed.B, Ver.1]	NATO Quality Assurance Requirements for Aviation, Space and Defence Suppliers. Ed.B, Ver.1, 2017.

Table 2 Quality Assurance Reference Documents

2.2. Documents for Configuration Management Purposes

Abbreviation	Full document Name and Reference
[STANAG 4427, Ed.3]	Configuration Management in System Life Cycle Management. Ed.3, 2014.
[ACMP-2000, Ed.A, Ver.2]	Policy on configuration management. Ed.A, Ver.2, 2017.
[ACMP-2009, Ed.A, Ver.2]	Guidance on Configuration Management. Ed.A, Ver.2, 2017.
[ACMP-2100, Ed.A, Ver.2]	The Core Set of Configuration Management Contractual Requirements. Ed.A, Ver.2, 2017.
[ISO 10007:2017]	Quality Management System – Guidelines for Configuration Management. Second edition, 2003.

Table 3 Configuration Management Reference Documents

2.3. SECAN Doctrine and Information Publication

Abbreviation	Full document Name and Reference
[SDIP-27/2, 2016]	SDIP-27/2(published as AC/322-D(2016)0022) – NATO TEMPEST requirements and evaluation procedures (NATO CONFIDENTIAL, March 2016)
[SDIP-28/1, 2009]	SDIP-28/1 - NATO ZONING PROCEDURES (NATO RESTRICTED, December 2009)
[SDIP 29/2, 2015]	SDIP 29/2 (published as AC/322-N(2014)0158-ADD3) - Selection and INSTALLATION OF EQUIPMENT FOR THE PROCESSING OF CLASSIFIED INFORMATION (NATO RESTRICTED), July 2015)
[SDIP 293/1, 2011]	SDIP 293/1, Instruction for the Control and Safeguarding of NATO Cryptographic Material (NATO RESTRICTED, March 2011)

Table 4 SECAN Doctrine and Information Publication Reference Documents

2.4. NATO Standards Guidance

Abbreviation	Full document Name and Reference
[STANAG 4728, Ed.2]	System Life Cycle Management. Ed.2, 2015.
[AAP-20, Ed.C, Ver.1]	NATO Programme Management Framework (NATO Life Cycle Model). Ed.C, Ver.1, 2015.
[AAP-48, Ed.B, Ver.1]	NATO System Life Cycle Processes. Ed.B, Ver.1, 2013.
[ALP-10, Ed.C, Ver.1]	NATO Guidance on Integrated Logistics Support for Multinational Armament Programmes. Ed.C, Ver.1, 2017.
[STANAG 6001, Ed.5]	Language Proficiency Levels. Ed.5, 2014.
[STANAG 4280]	NATO Levels of Packaging
[STANAG 4281, Ed.3]	NATO Standard Marking for Shipment and Storage. Ed.3, 2016.
[STANAG 4329, Ed.4]	NATO Standard Bar Code Symbologies – AAP-44(A). Ed.4, 2010.
[AAP-44]	NATO Standard Bar Code Handbook
BiSC E&IT DIR 075-007 (2015)	Education and individual training directive
[STANAG 4774, Ed.1]	Confidentiality Metadata Label Syntax. Ed.1, 2017.
[STANAG 4778, Ed.1]	Metadata Binding Mechanism. Ed.1, 2018.

Table 5 NATO Standards Guidance Reference Documents

2.5. NATO Security Documents

Abbreviation	Full document Name and Reference
[NAC C-M(2002)49, 2002]	Security within the North Atlantic Treaty Organisation (C-M(2002)49), 2002
[NAC AC/35-D/2000-REV7, 2013]	Directive on Personnel Security (AC/35-D/2000-REV7), 2013
[NAC AC/35-D/2001-REV2, 2008]	Directive on Physical Security (AC/35-D/2001-REV2), 2008
[NAC AC/35-D/2002-REV4, 2012]	Directive on Security of Information (AC/35-D/2002-REV4)
[NAC AC/35-D/2003-REV5, 2015]	Directive on Classified Project and Industrial Security (AC/35 – D/2003 –REV5), 2015
[NAC AC/35-D/2004-REV3, 2013]	Primary Directive on CIS Security (AC/35-D/2004-REV3), 2013

[NAC AC/322-D(2006)0041-REV1, 2009]	Directive on the Selection and Procurement of NATO Common-Funded Cryptographic Systems, Products and Mechanisms (AC/322-D(2006)0041-REV1), 2009
[NAC AC/322-D/0047-REV2(INV), 2009]	INFOSEC Technical & Implementation Directive on Cryptographic Security and Cryptographic Mechanisms (AC/322-D/0047-REV2 (INV)), 2009
[NAC AC/322-D/0048-REV3, 2019]	Technical and Implementation Directive on CIS Security (AC/322-D/0048-REV3), 2019
[NAC AC/322-D(2007)0036, 2007]	INFOSEC Technical & Implementation Directive on Emission Security (AC/322-D(2007)0036), 2007
[NAC AC/322-D(2017)0016, 2017]	Technical and Implementation Directive on NATO Supply Chain Security for COTS CIS Security Enforcing Products (AC/322-D(2017)0016), 2017
[NAC AC/35-D/2005-REV3, 2015]	Management Directive on CIS Security (CIS) (AC/35-D/2005-REV3), 2015
[NAC AC/35-D/1021-REV3, 2012]	Guidelines for the Security Accreditation of CIS (AC/35-D/1021-REV3), 2012
[NAC AC/35-D/1017 –REV3, 2017]	Guidelines for Security Risk Assessment Management (SRM) of Communication and Information Systems CIS (AC/35-D/1017 – REV3), 29 June 2017
[NAC AC/35-D/1015 –REV3, 2012]	Guidelines for the Development of Security Requirement Statements (SRSs) (AC/35-D/1015 –REV3), 2012
[NAC AC/35-D/1014-REV3, 2012]	Guidelines for the Structure and Content of Security Operating Procedures (SecOPs) for CIS (AC/35-D/1014-REV3), 2012
[NAC AC/322-D/0030-REV5, 2011]	INFOSEC Technical & Implementation Directive for the Interconnection of Communication and Information Systems (CIS) (AC/322-D/0030-REV5), 2011
[NAC AC/322-D(2004)0022(INV), 2006]	INFOSEC & Technical and Implementation Guidance for Consistent Marking of NATO Information in C3 Systems (AC/322-D(2004)0022(INV), 2006
[NAC AC/322-D(2007)0047, 2007]	INFOSEC Technical and Implementation Supporting Document on the Use of Shared Peripheral Switches (AC/322-D(2007)0047), 2007
[NAC AC/322-D(2008)0002, 2008]	INFOSEC Technical and Implementation Supporting Document on Securing Domain Name System Services (AC/322-D(2008)0002), 2008
[NATO PILAR User Guide, 4 March 2013]	NATO-specific User Guide for PILAR with NATO Profile", dated 4 March 2013 (NR)
[NAC AC/322-D(2011)0130 Rev1, 2011]	Guidance on the marking of NATO Information (AC/322-D(2011)0130 Rev1)
[NS AIS CSRS, 2013]	Secure Automated Information System (AIS) Community Security Requirements Statement (CSRS), Version 2, 2013, NATO RESTRICTED or ITM NS AIS CSRS, when available

	Generic Security Operating Procedures (SecOPs) for NATO SECRET (NS) Automated Information System (AIS) , NATO UNCLASSIFIED or ITM NS AIS SecOPs, when available
[NS AIS SecOPS, 2014]	

Table 6 NATO Security Reference Documents

2.6. Other NATO Documents

Abbreviation	Full document Name and Reference
[NAC AC/322-D(2005)0037, 2005]	AC/322-D(2005)0037, "Bi-SC AIS Reference Architecture (RA), Version 2", 2005
[NAC AC/322-D(2007)0048, 2007]	NATO Architecture Framework (NAF) V.3 (AC/322-D(2007)0048)
[NAC C-M(2009)0021, 2009]	North Atlantic Council Document C-M(2002), "Policy on the Retention and Disposition of NATO Information" 2009
[NAC C-M(2011)0043, 2011]	North Atlantic Council Document C-M(2002) NATO Records Policy, dated 17 June 2011
[NCIA AD 06.03.04, 2015]	Agency Directive AD 06.03.04 Test Verification and Validation - 20 February 2015

Table 7 NATO Reference Documents

2.7.   Non-NATO Documents

Reference documents for Quality and Testing

Abbreviation	Full document Name and Reference
[ISO/IEC 15288, 2015]	Systems and software engineering -- System life cycle processes
[ISO/IEC 12207, 2008]	Systems and software engineering -- Software life cycle processes
[ISO/IEC 25010, 2011]	Systems and software engineering — Systems and Software Quality Requirements and Evaluation (SQuaRE) — System and software quality models
[IEC 60050]	International Electrotechnical Vocabulary (IEV). (www.electropedia.org)
[AIA/ASD SX000i, 2016]	International guide for the use of the S-Series Integrated Logistic Support (ILS) specifications. Issue 1.1, 2016.
[AIA/ASD S1000D, 2016]	International Specification for Technical Publications. Issue 4.2, 2016.
[AIA/ASD S2000M, 2017]	International Specification for Material Management. Issue 6.1, 2017.
[AIA/ASD S3000L, 2014]	International Specification for Logistics Support Analysis – LSA. Issue 1.1, 2014.
[ISO 9001, 2015]	ISO 9000 Series – Quality Management systems - Requirements
[ISO 9000, 2015]	ISO 9000 Series – Quality Management Principles (Version 2015)
[ISO 10012, 2003]	ISO 10012 (Version 2003) – Measurement Management Systems – Requirements for measurement processes and measuring equipment
[IEEE 15288.2, 2014]	IEEE Standard for Technical Reviews and Audits on Defence Programs
[IETF RFC 2119, 1997)]	Internet Engineering Task Force Request for Comments 2119, "Key Words for Use in RFCs to Indicate Requirement Levels", S. Bradner, IETF, Sterling, Virginia, US, March 1997

Abbreviation	Full document Name and Reference
[ISO 3166 (ALPHA-3)]	Country Codes - ISO 3166
[ISO/TS 18152:2010]	Ergonomics of human-system interaction
[ISO 9241]	Ergonomics of human-system interaction
[ISO 9241-12:1998]	Ergonomic requirements for office work with visual display terminals (VDTs) -- Part 12: Presentation of information
[ISO 9241-13:1998]	Ergonomic requirements for office work with visual display terminals (VDTs) -- Part 13: User guidance
[ISO 9241-14:1997]	Ergonomic requirements for office work with visual display terminals (VDTs) -- Part 14: Menu dialogues
[ISO 9241-16:1999]	Ergonomic requirements for office work with visual display terminals (VDTs) -- Part 16: Direct manipulation dialogues
[ISO 9241-143:2012]	Ergonomics of human-system interaction) -- Part 143: Forms
[ISO 9241-171:2008]	Ergonomics of human-system interaction -- Part 171: Guidance on software accessibility
[ISO 9241-110:2006]	Ergonomics of human-system interaction -- Part 110: dialogue principles
[X.841, Oct 2000]	SERIES X: DATA NETWORKS AND OPEN SYSTEM COMMUNICATIONS – Security Information technology – Security techniques – Security information objects for access control
[SD-22]	Diminishing Manufacturing Sources and Material Shortages (DMSMS) - A Guidebook of Best Practices for Implementing a Robust DMSMS Management Program

Table 8 Non-NATO Reference Documents

NATO UNCLASSIFIED

SECTION 3. MILESTONES

3.1 Introduction

3.1.1 The Contractor shall meet or "exceed" the dates mentioned in the table below. (Note: "Exceed" is to be understood as a situation where the Contractor has delivered earlier than the dates mentioned in the schedule, and the Purchaser has accepted the milestone accordingly).

3.2 Milestones

Milestone	Delivery Date
Site survey	
MS 1 – Site survey completed KFOR Film City	EDC + 4 weeks
MS 1.1 - Site survey completed All locations	EDC + 12 weeks
Detailed Design and PMP	
MS 2 - Detailed Design and PMP Approved KFOR Film City	EDC + 8 weeks
MS 2.1 - Detailed Design and PMP Approved All locations	EDC + 20 weeks
Procurement, TEMPEST testing and delivery	
MS 3 - Procurement, TEMPEST testing and delivery of equipment achieved KFOR Film City	EDC + 10 weeks
MS 3.1 - Procurement, TEMPEST testing and delivery of equipment achieved All locations	EDC + 26 Weeks
Provisional System Acceptance (PSA)	
MS 4 - Provisional System Acceptance (PSA) KFOR Film City achieved	EDC + 22 weeks
MS 5 - Provisional System Acceptance (PSA) NHQ Sa achieved	EDC + 39 Weeks
MS 6 - Provisional System Acceptance (PSA) Skopje achieved	EDC + 44 weeks
MS 7 - Provisional System Acceptance (PSA) COMMZ-S achieved	EDC + 48 weeks
MS 8 - Provisional System Acceptance (PSA) Belgrade achieved	EDC + 53 weeks
MS 9 - Provisional System Acceptance (PSA) KFOR Remote sites achieved	EDC + 31 weeks
MS 10 - Provisional System Acceptance (PSA) NHQ Sa Remote sites achieved	EDC + 57 weeks
Final System Acceptance (FSA)	
MS 11 - Final System Acceptance (FSA) all sites achieved	EDC + 64 weeks

Table 9 Milestone Dates

NATO UNCLASSIFIED

3.2.1   MS 1 and MS 1.1: Site survey completed.

3.2.1.1 The Contractor shall follow the list of priorities dictated by the order of PSA milestones when scheduling site surveys.

3.2.1.2 The Contractor shall perform both Virtual and physical site surveys, in all locations in scope.

3.2.1.3 The Contractor shall perform site survey (Physical and Virtual) to the requested locations in order to enable discovery and requirements fulfilment as follows:

- Pristina: KFOR HQ, CUR 1911, KFOR Remote sites (lines 2-7 in Table 1 Section 1.3)
- Sarajevo: EUFOR HQ, NHQ SA HQ, MOD BLD1
- Skopje: NLO Skopje, NLO Camp Petrovac
- Belgrade: MLO Belgrade
- Thessaloniki: COMMZ-S
- SHAPE, Belgium: EUSG
- Naples: EUCE

3.2.1.4 The Contractor shall conduct a Site Survey (Physical and Virtual) on all 15 Balkans missions' locations (7 geographical locations Pristina, including KFOR remote sites, Sarajevo, Skopje, Thessaloniki, Belgrade, SHAPE, and Naples) to capture:

- All the information required in order for the Contractor to carry out the physical installation of the new equipment at the site;
- All the information relevant to the physical connectivity between the equipment provided and the PFE;
- Any CIS Security implications of the HQ's CIS;
- Omissions in the PFE list and the requirements for amendment or augmentation of that list;
- Key installation-related areas such as electrical installation, cabling, environmental aspects, including heating, ventilation and air conditioning, EMI/EMC, information security zoning;
- Civil works requirements, if and where applicable.

3.2.1.5 The Contractor shall produce a Site Survey Report (SSR), which shall be subject to review and approval by the Purchaser. The Purchaser's approval shall constitute the completion of the milestone.

3.2.1.6 The SSR shall contain at least the following information:

- Floor plan layouts of installation spaces (equipment rooms, corridors, offices);
- Temporary equipment storage spaces;
- Cabling (routing, configuration and wiring assignment);
- Availability of electrical power and electrical power conditioning;
- Existing environmental conditioning;

- Host Nation applicable standards;
- Points of Contact at the site;
- Scope of the required civil works, if any;
- Description of any existing arrangements between the Host Nation and any local commercial partners for any of the areas above, where applicable.

3.2.1.7 The SSR shall describe the foreseen impact of not obtaining the information above, or the information not having the required quality or accuracy.

3.2.1.8 The SSR shall be delivered for Purchaser's review not later than 1 week after the Site Survey.

3.2.1.9 Where readily available to the Purchaser, the Purchaser will provide the Contractor with existing site information, drawings, wiring assignments and referenced documents.

3.2.1.10 During the Site Survey and throughout the installation stage, the Contractor shall verify the accuracy of any site information, drawings, wiring assignments and referenced documents provided by the Purchaser, and make any updates, as necessary.

3.2.1.11 The Contractor shall update, change, or produce new site information, drawings, wiring assignments and referenced documents to reflect any changes that occur as a result of this contract.

3.2.1.12 The Contractor shall, as a result of the site survey, propose contract amendments that will enable the delivery of the subsequent milestones as requested in the initial contract.

3.2.1.13 In support of the site survey activities, the Contractor shall be responsible to request access to the site with enough time to follow the site access procedure and meet the agreed planned date for the visit.

3.2.2 MS 2 and MS 2.1 – Detailed Design and PMP Approved

3.2.2.1 The Contractor shall follow the list of priorities dictated by the order of PSA milestones when delivering Detailed Design (SDS) and PMP updates to cover the locations in scope.

3.2.2.2 The Contractor shall deliver the initial PMP as stated in Section 4 of the of this document (SOW).

3.2.2.3 The Contractor shall deliver all Design activities as stated in Section 4 of this document (SOW). The Purchaser approval of the documents shall constitute the completion of the milestone.

3.2.3 MS 3 and MS 3.1 – Procurement, TEMPEST testing and delivery of equipment achieved

3.2.3.1 The Contractor shall follow the list of priorities dictated by the order of PSA milestones when executing and scheduling procurement, TEMPEST testing and delivery of equipment.

3.2.3.2   The Contractor shall procure all items listed in the Bidding Sheets. The procurement shall be for all items listed under Final Bill of Materials (BOM). 3.2.3.3   The Contractor shall meet the minimum specifications for every item described in the provided ANNEX A System Requirement Specifications.

3.2.3.4 The Contractor shall submit a Bill of Material (BOM) that will become an Annex to the Bidding sheets specifying the individual cost of each item, as well as their detailed specification.

3.2.3.5   **TEMPEST level certification**

3.2.3.5.1 The Contractor shall provide the equipment explicitly labelled "TEMPEST level B" and "TEMPEST level C" in accordance with the Bidding Sheets and ANNEX A System Requirements Specifications.

3.2.3.5.2 The Contractor shall provide the SDIP-27-compliant TEMPEST certification for all specified items, at the level required in the Bidding sheets and ANNEX A System Requirements Specifications.

3.2.3.5.3 The TEMPEST certificates shall be provided by a NATO-authorised supplier of TEMPEST equipment as found in the NATO Information Assurance Product Catalogue (NIAPC).

3.2.3.6   **Shipment**

3.2.3.6.1 The Contractor shall ship all equipment to the requested locations in the Bidding Sheets. The Contractor shall coordinate each shipment with Purchaser POC stated in Section 5 for the exact shipment address, terms and arrangements for each shipment:

- Pristina
- Sarajevo
- Belgrade
- Skopje
- Thessaloniki
- Naples
- SHAPE

3.2.3.6.2 The Purchaser will ensure that an adequate staging area is in place at reception of the equipment.

3.2.3.6.3 The Contractor shall provide to the Purchaser the shipment notification and corresponding documentation at least 10 days before shipment.

3.2.3.6.4 Shipments shall be executed in accordance with the ILS specifications described in Section 5.

3.2.3.7 **Shipping Terms:** The shipping and delivery terms and conditions are in Section 5 of this SOW.

3.2.4   MS 4– Provisional System Acceptance (PSA) KFOR Film City achieved

3.2.4.1 The Contractor shall deliver all requirements up to PSA (Section 4 up until 4.3.4 of this document, SOW) listed in Section 4 of this document (SOW).

3.2.4.2 The Contractor shall deliver, under this milestone, all PSA requirements for the KFOR HQ, CUR 1904 (if option activated) and CUR 1911 scope (if option activated). If not specifically mentioned as a CLIN in the bidding sheets activities shall not be counted against CUR 1911, CUR 1904 but under KFHQ CLIN (i.e. Site survey Pristina).

3.2.4.3 PSA shall be declared at a meeting (physical or virtual) convened between the Contractor and the Purchaser for that purpose.

3.2.4.4 The Contractor shall call and participate in the PSA Meeting with the Purchaser.

3.2.4.5 At the PSA meeting the Contractor shall present to the Purchaser evidence that all conditions listed in for PSA have been met. For that purpose the Contractor shall provide a PSA declaration form, listing the conditions above and containing the PSA Observations Sheet.

3.2.4.6 The PSA Observations Sheet shall be the log of all discrepancies raised during the PSA meeting, with a statement on their required resolution and resolution timeline.

3.2.5 MS 5 - Provisional System Acceptance (PSA) NHQ Sa achieved

3.2.5.1 The Contractor shall deliver all requirements up to PSA listed in Section 4 of this document (SOW).

3.2.5.2 The Contractor shall deliver, under this milestone, all PSA requirements for the NHQ Sa HQ, NATO office in MOD BLD 1, CUR 2025 (If option activated) and EUFOR HQ scope (If option activated). If not specifically mentioned as a CLIN in the bidding sheets activities shall not be accounted against EUFOR HQ, but under a NATO CLIN related to NHQ Sa (i.e. Site survey Sarajevo).

3.2.5.3 PSA shall be declared at a meeting convened between the Contractor and the Purchaser for that purpose.

3.2.5.4 The Contractor shall call and participate in the PSA Meeting with the Purchaser.

3.2.5.5 At the PSA meeting the Contractor shall present to the Purchaser evidence that all conditions listed in for PSA have been met. For that purpose the Contractor shall provide a PSA declaration form, listing the conditions above and containing the PSA Observations Sheet.

3.6.2.1. The PSA Observations Sheet shall be the log of all discrepancies raised during the PSA meeting, with a statement on their required resolution and resolution timeline.

3.2.6 MS 6 - Provisional System Acceptance (PSA) Skopje achieved

3.2.6.1 The Contractor shall deliver all requirements up to PSA listed in Section 4 of this document (SOW).

3.2.6.2 PSA shall be declared at a meeting convened between the Contractor and the Purchaser for that purpose.

3.2.6.3 The Contractor shall call and participate in the PSA Meeting with the Purchaser.

3.2.6.4 At the PSA meeting the Contractor shall present to the Purchaser evidence that all conditions listed in for PSA have been met. For that purpose the Contractor shall provide a PSA declaration form, listing the conditions above and containing the PSA Observations Sheet.

3.6.3.1. The PSA Observations Sheet shall be the log of all discrepancies raised during the PSA meeting, with a statement on their required resolution and resolution timeline.

3.2.7 MS 7 - Provisional System Acceptance (PSA) COMMZ-S achieved

3.2.7.1 The Contractor shall deliver all requirements up to PSA listed in Section 4 of this document (SOW).

3.2.7.2 PSA shall be declared at a meeting convened between the Contractor and the Purchaser for that purpose.

3.2.7.3 The Contractor shall call and participate in the PSA Meeting with the Purchaser.

3.2.7.4 At the PSA meeting the Contractor shall present to the Purchaser evidence that all conditions listed in for PSA have been met. For that purpose the Contractor shall provide a PSA declaration form, listing the conditions above and containing the PSA Observations Sheet.

3.2.7.5 The PSA Observations Sheet shall be the log of all discrepancies raised during the PSA meeting, with a statement on their required resolution and resolution timeline.

3.2.8 MS 8 - Provisional System Acceptance (PSA) Belgrade achieved

3.2.8.1 The Contractor shall deliver all requirements up to PSA listed in Section 4 of this document (SOW).

3.2.8.2 PSA shall be declared at a meeting convened between the Contractor and the Purchaser for that purpose.

3.2.8.3 The Contractor shall call and participate in the PSA Meeting with the Purchaser.

3.2.8.4 At the PSA meeting the Contractor shall present to the Purchaser evidence that all conditions listed in for PSA have been met. For that purpose the Contractor shall provide a PSA declaration form, listing the conditions above and containing the PSA Observations Sheet.

3.2.8.5 The PSA Observations Sheet shall be the log of all discrepancies raised during the PSA meeting, with a statement on their required resolution and resolution timeline.

3.2.9 MS 9 - Provisional System Acceptance (PSA) KFOR Remote sites achieved

3.2.9.1 The Contractor shall deliver all requirements up to PSA listed in Section 4 of this document (SOW).

3.2.9.2 PSA shall be declared at a meeting convened between the Contractor and the Purchaser for that purpose.

3.2.9.3. The Contractor shall call and participate in the PSA Meeting with the Purchaser.

3.2.9.4 At the PSA meeting the Contractor shall present to the Purchaser evidence that all conditions listed in for PSA have been met. For that purpose the Contractor shall provide a PSA declaration form, listing the conditions above and containing the PSA Observations Sheet.

3.2.9.5 The PSA Observations Sheet shall be the log of all discrepancies raised during the PSA meeting, with a statement on their required resolution and resolution timeline.

3.2.10 MS 10 - Provisional System Acceptance (PSA) NHQ SA Remote sites achieved

3.2.10.1 The Contractor shall deliver all requirements up to PSA listed in Section 4 of this document for EUSG SHAPE and EUCE Naples locations (SOW).

3.2.10.2 PSA shall be declared at a meeting convened between the Contractor and the Purchaser for that purpose.

3.2.10.3 The Contractor shall call and participate in the PSA Meeting with the Purchaser.

3.2.10.4 At the PSA meeting the Contractor shall present to the Purchaser evidence that all conditions listed in for PSA have been met. For that purpose the Contractor shall provide a PSA declaration form, listing the conditions above and containing the PSA Observations Sheet.

3.2.10.5 The PSA Observations Sheet shall be the log of all discrepancies raised during the PSA meeting, with a statement on their required resolution and resolution timeline.

3.2.11 MS 11 - Final System Acceptance (FSA) all sites achieved

3.2.11.1 FSA Conditions

3.2.11.1.1 To achieve FSA the Contractor shall demonstrate:

- That the CIS solution has passed PSA;
- That the old CIS solution has been decommissioned and assets correctly disposed of.
- That the Purchaser has received and accepted all contractual deliverables;
- A deliverables inventory has been provided and verified by the Purchaser, which details all the deliverables to be supplied under the terms of the Contract;
- That the system has been tested and confirmed it operates at the levels of performance and availability specified in this SOW Section 5 in all locations in scope;
- The Contractor has provided a Certificate of Conformity (CoC) that the equipment conforms to the contractual standards.
- All services described in this SOW are handed over to the O&M provider and a hand over checklist, produced by the Contractor has been signed by the Purchaser and the O&M provider POC for each site.

3.2.11.2 FSA Meeting

3.2.11.2.1 FSA will be established at a meeting convened between the Contractor and the Purchaser for that purpose.

3.2.11.2.2 The Contractor shall participate in the FSA Meeting, which shall be held at the Purchaser's premises in either Brussels, SHAPE or in The Hague, at the Purchaser's discretion.

3.7.2.1. The Contractor shall demonstrate at the FSA Meeting to the Purchaser that:

- All the conditions for FSA have been met.
- The As-Built Documentation pertaining to the site has been delivered to the Purchaser.
- The Purchaser has received and verified the accuracy of the deliveries inventory, which details all the deliverables to be supplied under the terms of the Contract.
- The Purchaser has received and verified the accuracy of the As-Built Documentation.
- The Contractor has provided a Certificate of Conformity (CoC) that the equipment conforms to the contractual standards.
- The Purchaser has received all Contract deliverables.

SECTION 4.   SCOPE OF WORK UNTIL FSA

4.1.   Project Management

4.1.1. Contractor Project Management

4.1.1.1. The Contractor shall establish and maintain a Project Management Office (PMO) to perform and manage all efforts necessary to discharge all his responsibilities under this Contract.

4.1.1.2. The Contractor shall provide all necessary manpower and resources to conduct and support the management and administration of operations in order to meet the objectives of the programme, including taking all reasonable steps to ensure continuity of personnel assigned to work on this project.

4.1.1.3. The Contractor shall use PRINCE2 or a similar and internationally recognized Project Management standard for the direction, governance and management activities for the entire project.

4.1.2. Contractor Project Organization

4.1.2.1. The Contractor Project Organization shall include a number of roles, of which the Project Manager, the Technical Lead, the ILS Manager and Field Service Representative are considered 'key personnel. The full list of key personnel and their required qualifications and experience is provided in ANNEX C of this document.

4.1.2.2. The Contractor's project team may consist of any number of people; however, the Contractor shall make sure that the team shall have people and expertise to cover all of the above functions without any conflict of interest.

4.1.2.3. The Contractor shall estimate and include the costs of travel needed for its organization to fulfil the Project management activities and deliverables. The cost shall be included in the Project management CLIN in the bidding sheets.

4.1.3. Security Requirements

4.1.3.1. The Contractor employees and the sub-Contractors involved in the design, installation and on-site maintenance shall be required to hold NATO security clearances to at least NATO SECRET level. The Contractor shall be required to handle and store documentation classified up to NATO SECRET (NS) in accordance with NATO Security Policy.

4.1.3.2. The Contractor shall at all times ensure that:

- Adequate resources are applied to all activities undertaken under the contract;
- Milestones are achieved in a timely manner;
- The project status information is comprehensively reported to the Purchaser in a timely manner;
- All risks to project achievement are identified and managed;
- Professional standards of project activities and deliverables through the application of QA techniques are applied;

4.1.3.3. The Contractor shall proactively coordinate and collaborate with other parties (NATO, Contractors) as required for the implementation of this project, in close coordination with the Purchaser.

4.1.3.4. The Contractor shall attend, organise and conduct meetings as required by the Purchaser.

4.1.3.5. The Contractor shall respect ILS, QA, CM, Testing (see sections SECTION 5, SECTION 7, SECTION 8, and 8.1), and Security requirements.

4.1.4. Project Management Plan (PMP)

4.1.4.1. The Bid will include an initial version of the Project Management Plan (PMP), which describes how the Contractor will implement the totality of the project, including details of the controls that will be applied.

4.1.4.2. The PMP shall cover all aspects of the project implementation including its management structure and project control processes, personnel assignments, external relationships and project control, necessary to provide the capability as required by this Contract.

4.1.4.3. This PMP will include the details of the controls that shall be applied to supervise Sub-Contractor performance.

4.1.4.4. The PMP shall also explain the Quality Assurance and Control System that is implemented by the Contractor based on the requirements Organisational description

4.1.4.5. The PMP shall identify all major Contractor operating units and any Sub-Contractors involved in the development of the Balkans IT Technical Refresh and a description of the portion of the overall effort or deliverable item for which they are responsible.

4.1.4.6. **Contractor's Project Organization**

4.1.4.6.1 The PMP shall contain an organisational chart showing the members of the Contractor's Project Team (including the members of the PMO listed in section 4.1.2 and Annex C and showing their respective responsibilities and authority.

4.1.4.7. **Timeline and acceptance**

4.1.4.7.1 The updated version of the initial PMP from the Bid phase, including all planning documents in this section, shall be submitted for the Purchaser's review no later than 2 weeks prior to milestone MS 2 and MS 2.1 (Section 3) due date. Upon Purchaser Acceptance, the PMP shall be placed under the Purchaser's Balkans IT Technical Refresh CCB. The final date for an approved PMP is reflected in Section 3 Milestones (MS 2 and MS 2.1)

4.1.4.8. **Risk and issue management**

4.1.4.8.1 The Contractor shall include a Risk and issue management plan in the PMP.

4.1.4.8.2 The Contractors Risk and issue management plan shall identify and track to resolution issues and risks for the project.

4.1.4.8.3 The Contractor shall update the Risk and issue management plan as often as necessary throughout the lifecycle of the project.

4.1.4.8.4   The Contractor shall use the following Risk/Issue management process:

- Identify – recognize and discover risks/issues; assign an owner
- Assign Owner – the person for resolving the issue or responsibility for mitigating the risk
- Analyse – process risk/issue data into decision-making information
- Plan Risk/Issue Response – translate risk/issue information into decisions and response actions (mitigations)
- Execute Risk/Issue Response – execute decisions and mitigation plans
- Track and Monitor – monitor risk/issue indicators and mitigation actions; correct for deviations from planned actions
- Communicate – share information and solicit feedback on all risk/issue management activities with project stakeholders; escalate issues and risks based upon exposure and impact to project

4.1.4.9. **Status**

4.1.4.9.1 The acceptance of the PMP by the Purchaser signifies only 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.

4.1.4.10. **Updates**

4.1.4.10.1As required, the Contractor shall ensure that the PMP remains current throughout the duration of the Project to reflect the actual state of the Contractor's organisation and efforts.

4.1.4.11. **Outline**

4.1.4.11.1The PMP shall follow the outline of this SOW, unless otherwise agreed by the Purchaser.

4.1.4.11.2The Contractor's PMP shall cover all aspects of the project implementation that are appropriate to provide the capability as required by this Contract, subject to approval from the Purchaser.

4.1.4.11.3The Contractor's PMP shall be sufficiently detailed to ensure that the Purchaser is able to assess the Contractor plans with insight into the Contractor's plans, capabilities, and ability to satisfactorily implement the entire project in conformance with the requirements as specified in this SOW.

4.1.11.4 The Contractor's PMP shall be provided to the Purchaser for acceptance.

4.1.5. Project Management Schedule (PMS)

4.1.5.1. Introduction

4.1.5.2. The Contractor shall establish and maintain a Project Master Schedule that contains all contract events and milestones as a separate section in the initial PMP. The PMS shall correlate with the products defined in the PBS.

4.1.5.3. Deliverables

4.1.5.4. The Contractor shall develop the PMS to show all contractual deliverables, the work associated with them, and their delivery dates, at a level of detail that can permit the Purchaser to evaluate the feasibility of the schedule.

4.1.5.5. Presentation

4.1.5.6. The PMS must not be over detailed with events or tasks internal to the Contractor, unless they are of major importance to the project.

4.1.5.7. Traceability

4.1.5.8. The PMS shall also be traceable to performance and delivery requirements of this SOW. Also, the PMS shall be linked to Contractor resources to enable assessment of changes to staff, facilities, event dates, and system requirements.

4.1.5.9. Format and tools

4.1.5.10. 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. The PMS shall provide network, milestone, and Gantt views and identify the critical path for the overall project.

4.1.5.11. The Contractor shall establish, maintain and deliver as required a PMS (Microsoft Project format) containing all tasks and milestones.

4.1.5.12. The PMS shall contain the following items unless otherwise stated by the Purchaser:

- Contain all events and milestones, in particular site preparation, site installation and activation, planned outages (if any), and ILS-related elements

- Delivery times of all documentation to be provided to the Purchaser

- Correlate with the products defined in the PBS

- Be provided in Microsoft Project format

- Identify the critical path for the overall project

- Identify the start and finish dates, duration, predecessors, constraints (as necessary) and the total slack of each task

- Identify the main project milestones

- Identify the "physical" progress for each task

- Identify the applicable baseline, and shall show progress against the baseline

- Minimise the use of constraints and absolute dates

- Identify the main deliverables.

4.1.6. Project Breakdown Structure (PBS)

4.1.6.1. Introduction

4.1.6.2. The Contractor shall establish and maintain a Product Breakdown Structure as a separate section in the initial PMP. The PBS shall identify all products that the project has to deliver and shall distinguish between management products and specialist products. The PBS shall be used as the primary framework for contract planning and reporting to the Purchaser.

4.1.6.3. Categories of deliverables

4.1.6.4. For the purpose of this contract, the deliverables are split into two categories: management products and system engineering products.

4.1.6.5. Management Products

4.1.6.6. Management products are all contract deliverables covered under Section 4 Project Management.

4.1.6.7. System engineering products

4.1.6.8. System engineering products are all other deliverables covered in this contract.

4.1.6.9. Structure Details

4.1.6.10. The PBS shall include a hierarchical table of all the products (management products and system engineering products), having at its topmost product the final product of the overall project, i.e. the Balkans IT Technical Refresh FSA.

4.1.6.11. The PBS shall describe each product (management products and system engineering products) including its quality requirements. The product descriptions shall address sufficient detail to permit management assessment of progress.

4.1.6.12. Configuration and Change Control

4.1.6.13. The Contractor shall ensure the PBS is under Configuration and Change Control.

4.1.6.14. Project Status Report (PSR)

4.1.6.15. The Contractor shall provide a weekly PSR to the Purchaser. The Purchaser shall have the authority to increase the frequency the PSR shall need to be provided by the contractor (i.e. daily).

4.1.6.16. A PSR procedure shall be defined and included in the PMP. The PSR procedure shall be keep up to date.

4.1.6.17. The Contractor's PSR shall at minimum summarise completed, ongoing, and upcoming activities, as well as attached updated PMS.

4.1.6.18. The Contractor shall organize monthly Project Review Meetings (PRM). The Purchaser shall have the discretion to increase frequency of Project Review Meetings as required to achieve project milestones.

4.1.7. Project Implementation Plan

4.1.7.1.   The PIP serves as project implementation documentation, including all technical aspects, and as final record of the installed CIS design, installation and configuration. The PIP evolves over time starting as a plan to the definitive as-is documentation.

4.1.7.2.   The Contractor shall submit a Project Implementation Plan (PIP) 2 weeks before the start of the installation activities and will be subject to Purchaser approval. PIP shall become part of the PMP after approval.

4.1.7.3.   The PIP shall describe how the Contractor shall implement project/contract administration.

4.1.7.4.   The PIP shall consider all project implementation aspects, which include management provisions, facilities, schedules, personnel assignments, external relationships and project control.

4.1.7.5.   The PIP shall be concise and yet provide sufficient detail, where needed, to allow the Purchaser to assess the Contractor's plans and capabilities in implementing the entire project in conformance with the requirements specified.

4.1.7.6.   After approval by the Purchaser, any new version of the PIP shall constitute the unique Contractor's reference for the project implementation.   The Purchaser shall approve the PIP as a whole or in parts.

4.1.7.7.   The PIP shall evolve as a collection of plans, developed in correspondence with the sections of this SOW, as follows:

- Implementation Management Plan (IMP), provided as a Gantt chart with supporting text;
- Site Implementation Data Package (SIDP), containing the dates and milestones for the installation of the equipment;
- Integrated Logistics Support Plans (ILSP).

4.1.8. Documentation Delivery and Review

4.1.8.1.   The contractor shall deliver a documentation delivery plan in which describes all documentation deliverables, the detail level of those deliverables, and the delivery dates. This documentation delivery plan shall be delivered not later than 4 weeks after EDC and will be subject to Purchaser approval.

4.1.8.2.   The Contractor shall deliver all documents to the Purchaser in electronic format (MS Office unless otherwise stated in this SOW) for review and approval. The Purchaser shall provide reasonable effort to review and approve these documents in a timely manner.

4.1.8.3.   The Contractor shall ensure that any documentation delivered to the Purchaser has been properly reviewed according to Contractor quality management process.

4.1.8.4.   The Contractor shall take into account Purchaser comments and shall issue up other documentation versions as required.

4.1.8.5.　The acceptance of documents by the Purchaser signifies only 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.

4.1.8.6.　The Contractor shall remain responsible for updating the documents in the course of the project (to correct errors, inconsistencies, omissions, etc. and to reflect changes in the system design, system implementation, support arrangements) and shall deliver up-to-date versions at FSA.

4.1.8.7.　The Contractor shall submit all documentation in electronic format to the Purchaser for review and comments as applicable.

4.1.8.8.　There shall be no limitation to the Purchaser's rights to use or reproduce the documentation.

4.1.8.9.　The Contractor shall not provide any contractual documentation in a partial or gradual manner.

4.1.8.10.　At each review cycle, the Purchaser will state if the document is or is not likely to be accepted in its Final version.

4.1.8.11.　Except otherwise stated for specific documents, the following provisions shall apply for any documentation to be provided by the Contractor under this contract:

4.1.8.12.　The Contractor shall provide a first draft (version 0.1) of each deliverable for Purchaser review. The first draft shall be substantially complete and correct.

4.1.8.13.　The Purchaser will endeavour to provide comments, corrections, and suggested changes to the Contractor within 14 days of receipt. The Purchaser reserves the right to return without review a document that has significant deficiencies (e.g. a document only including a table of contents). The Contractor shall not rely on the Purchaser review to fill in deficiencies or obtain missing Purchaser information.

4.1.8.14.　The Contractor shall resubmit the document as a revised draft (version 0.2) incorporating the Purchaser's comments within 1 week after receipt.

4.1.8.15.　The Purchaser will endeavour to provide comments, corrections, and suggested changes to the Contractor within 1 week of receipt.

4.1.8.16.　The Contractor shall provide the Final (version 1.0) document within 1 week of receipt of the Purchaser's comments on the revised draft.

4.1.8.17.　If the document is included as part of the Development Baseline or Product Baseline, the Contractor shall remain responsible for updating the document as required in the course of the project (to correct errors, inconsistencies, omissions, etc. and to reflect changes in the system design, system implementation, support arrangements) as part of its Configuration Management tasks.

4.2. Design Activities

4.2.1. Introduction

4.2.1.1. This section describes the design related activities for the implementation of the technical solutions described in the SOW and the associated SRS.

4.2.1.2. The Purchaser will provide an initial version of the high-level System Design for the solution, based upon the architecture for the services and equipment described in the SRS. The initial high-level system design will be provided after the site survey has taken place.

4.2.1.3. The Contractor shall develop the Purchaser provided high-level system design with the assistance of the Purchaser to produce the System Design Specification (SDS) for the solution.

4.2.1.4. The Contractor shall estimate and include the costs of travel needed for its organization to fulfil the design activities and deliverables. The cost shall be included in the Achieve PSA CLIN's in the bidding sheets for each geographical location.

4.2.2. Design Documentation Package

4.2.2.1. The Contractor shall establish, deliver and maintain up to date the Design Documentation Package with the assistance of the Purchaser, which will comprise of: a) The System Design Specification (SDS) and, b) The Requirements Traceability Matrix (RTM).

4.2.2.2. The Purchaser shall review and approve the Design Documentation Package in a timely manner.

4.2.2.3. The Contractor shall validate the design and the configurations to be implemented through the testing activities described in SECTION 6: Test, Verification, Validation and Acceptance.

4.2.2.4. The Contractor shall identify and correct design deficiencies and incorrectly implemented configurations.

4.2.2.5. The Contractor shall ensure that in order to maintain clear consistency throughout all documents in the System Design Documentation Package, any update of any of the documents comprised in the System Design Documentation Package shall result in re-delivery of a new version of the complete System Design Documentation Package.

4.2.2.6. The SDS shall describe the solution to a level of detail that is sufficient for the Purchaser to be able to ensure that the requirements in the SRS can be implemented.

4.2.2.7. The Contractor shall use the Purchaser delivered High-level System Design to develop the SDS. The Purchaser shall assist the Contractor with inputs during Design Review meetings.

4.2.2.8. The Contractor shall propose a document template for SDS no later than EDC+2 weeks. The Purchaser will review, make recommendations and approve the template within 1 week after receiving the template proposal.

4.2.2.9. The Contractor shall develop the detailed SDS with assistance from the Purchaser in order to describe the complete design for the system as well as schedule, staffing and detailed costs. The task shall be performed after contract award and delivered according to MS 2 and MS 2.1 in Section 3 of this document.

4.2.2.10. The Contractor shall provide a comprehensive design that covers the total scope of the project and all aspects of the solution.

4.2.2.11. The SDS shall comply with the Security Requirements specified at the references in 2.4 SECAN Doctrine and Information Publication.

4.2.2.12. The Contractor shall develop and maintain the RTM that establishes a complete cross-reference between the requirements stated in the SOW and SRS.

4.2.3. Design Review

4.2.3.1. The Contractor shall organize Design Reviews, in a form of virtual or in physical meeting in order to produce version 1 of the SDS and when there is a need to further revise the SDS because of material changes to the system design.

4.2.3.2. The Contractor shall estimate and account for the number of design review meetings and the travel costs to execute.

4.2.3.3. The Contractor shall provide a Design Review Report that outlines issues, deficiencies and required changes.

4.2.3.4. The Contractor shall update the Design Documentation Package as per the result of the Design Review.

4.3.   Implementation Activities

4.3.1. Introduction

4.3.1.1. This section describes the general site implementation activities to be performed by the Contractor to deliver the solution at each site. Specific implementation activities and guidance for technical equipment and services are described in Annex A: Systems Requirement Specification (SRS).

4.3.1.2. The Contractor shall estimate and include the costs of travel needed for its organization to fulfil the implementation activities and deliverables. The cost shall be included in the Achieve PSA CLIN's in the bidding sheets for each geographical location.

4.3.2. Site Implementation Data Package (SIDP)

4.3.2.1. The Contractor shall provide and maintain a Site Implementation Data Package (SIDP) to manage the actual implementation of the system(s), taking the details of the SDS into account. The first version of this SIDP shall be delivered by the Contractor together with the final version of the SDS.

4.3.2.2. The SIDP shall detail any additional site surveys, the installation plan and the back-out plan developed by the Contractor as well as the tools identified by the Contractor to conduct all system implementation activities.

4.3.2.3.   The site surveys and installation sequence and dates reflected in the SIDP shall be coordinated with the Purchaser and the site POCs to accommodate site-specific requirements, exercises, holiday periods, and other considerations.

4.3.2.4.   The system implementation activities shall not generate outages on the sites where the system to be implemented is co-located with other mission critical systems. The SIDP shall show that the impact of the installation on the current site systems is minimal and systems downtime shall be scheduled outside business hours.

4.3.2.5.   A back-out plan shall be used if the installation of any component of the system to be implemented is found to be interfering with the operation of other Purchaser's systems. The Back-out plan shall enable a smooth deactivation and/or removal of all installed components and restoration of existing services to their last operational state prior to installation.

4.3.2.6.   The Contractor shall structure the SIDP so that general implementation information is maintained in the body of the plan and that each site has its specific details documented in its own annex.

4.3.2.7.   The Contractor shall update and revise the SIDP to reflect the findings and results of the site surveys activities and in relation with the progress of installation and activation activities. The Contractor shall issue the SIDP immediately after the Site Survey.

4.3.2.8.   The SIDP shall be provided to the Purchaser for acceptance, when accepted by the Purchaser the SIDP shall be put under change control.

4.3.3. Site Implementation

4.3.3.1.   The Contractor shall ensure the implementation activities achieve the project schedule described in SECTION 3 and in the PMP.

4.3.3.2.   The Contractor shall deliver, install and configure all equipment specified in the Contract at the site locations described in section 1 of this SOW.

4.3.3.3.   The Contractor shall hold daily meetings with the site POC to agree the work to be conducted during the day.

4.3.3.4.   The Contractor shall carry out site surveys, site installations, testing and on-site training to achieve FSA for the project.

4.3.3.5.   The Contractor shall ensure that the equipment to be installed (as identified by the site during the site survey) has been tested and certified to operate at the "facility's zone level" as applicable. The Contractor shall provide relevant evidence to the site before installing equipment.

4.3.3.6.   The Contractor shall install equipment in accordance with SDIP-29/2 installation requirements.

4.3.3.7.   The Purchaser reserves the right to suspend the Contractor's installation or activation work for up to two working days to avoid interfering with or disrupting a critical operational event. If this suspension exceeds two working days, a request for adjustment of the contract conditions (e.g. pricing) can be submitted.

4.3.3.8. The Contractor shall notify the Purchaser of all facilities support requirements, including modifications or additions, within one week of identification of the requirements. This notification shall be in the form of a letter to the site POC, with a copy to the NCIA PM, accompanied by engineering drawings, checklists, or any other supporting information.

4.3.3.9. The contractor shall identify, in cooperation with local facility managers, the environmental factors within the technical facilities (available power budget, air conditioning, etc.) to ensure the feasibility of adding new equipment within the existing capacities. If the technical conditions required for the installation of the new hardware cannot be met, then the civil works have to be requested to address the identified shortcomings.

4.3.3.10. The Contractor shall monitor the progress of any required site facilities preparations, and the progress of any required provision of input by the Purchaser and the Site, to ensure timeliness and quality of the preparatory work required from the Purchaser.

4.3.3.11. The Contractor shall provide the site POC, with a copy to the NCIA PM with a draft list of hardware and software to be shipped and a list of Contractor personnel who will be involved in site installation and activation.

4.3.3.12. The Contractor shall confirm his ability to start the site installation 21 calendar days (3 weeks) prior to the scheduled start. The notification shall include full details and clearances of the installation team.

4.3.3.13. The Contractor shall supply all the necessary material, labour and support equipment required to meet the specifications in the contract.

4.3.3.14. The Contractor shall unpack all equipment at the site, separate and sort packing materials and move to a location on site for recycling or disposal as directed by the Purchaser's Site POC.

4.3.3.15. The Contractor shall decommission and collect Customer equipment that will be replaced by new equipment from the project and move it storage areas identified by the site POC for disposal.

4.3.3.16. The Contractor shall install and configure all equipment in accordance with the SDS, SIDP and as directed by The Purchaser or his nominated representative.

4.3.3.17. The Contractor shall ensure that anything that may delay installation is brought to the attention of the Purchaser Project Manager promptly.

4.3.3.18. The Contractor shall provide the Purchaser Project Manager with a draft list of hardware and software to be shipped, and a list of Contractor's personnel together with a copy of each person's Personnel Security Clearance (PSC) for those who will be involved in site installation and activation work.

4.3.3.19. The Contractor shall ensure all installations and engineering work is carried out by qualified personnel who follow standard safety regulations and procedures.

4.3.3.20. All materials and equipment supplied by the Contractor shall be installed in strict conformity with the manufacturer's instructions for the locale and as specified in the Contractor SIDP.

4.3.3.21. The Contractor shall maintain a logbook of incident/event recorded on daily basis. Incidents or events include (but not limited to) equipment failure; personnel incident; visitors, accident; etc. When no incident happened, the words 'No significant event to report' shall be noted in the logbook. The logbook shall be delivered to the Purchaser as part of the PSA documentation.

4.3.3.22. Upon completion of site implementation works, the Contractor shall provide the Purchaser with a copy of the site installation and activation checklist and resolve any discrepancies identified. After site implementation and prior to system testing (section 6.3), the Contractor shall respond within 24 hours to any problems reported by the Purchaser and critical issues shall be addressed immediately by the Contractor.

4.3.4. Provisional Site Acceptance (PSA)

4.3.4.1. The Contractor shall support the migration and transition of equipment and services from the existing environment to the new environment including the migration of data (including user data) so that users can access their migrated data. The Purchaser will identify the user data to be migrated.

4.3.4.2. The Contractor shall enable delivery of all requested commercial trainings and make sure NATO support staff attend before PSA.

4.3.4.3. The Contractor shall take into account all of the travel and expenses associated with the PSA activities and bid appropriately in the Bidding Sheets.

4.3.4.4. The Contractor shall conduct the site activation tests as per the testing process detailed in Section 6.

4.3.5. Final System Acceptance (FSA)

4.3.5.1. The Contractor shall have completed all PSA activities and rectified all deficiencies before FSA tests are started.

4.3.5.2. The Contractor shall conduct the FSA tests as per the testing process detailed in SECTION 6.

4.3.5.3. The Contractor shall estimate and include the costs of travel needed for its organization to fulfil the FSA and deliverables. The cost shall be included in the Achieve FSA CLIN's in the bidding sheets for each geographical location.

4.3.5.4. The Contractor shall decommission and dispose of assets as described in Section 5.

4.3.5.5. The Contractor shall provide a final as-built version of all documentation required by the Purchaser.

4.3.5.6. The Contractor shall provide a deliverables inventory that will be verified by the Purchaser, which details all the deliverables to be supplied under the terms of the Contract;

4.3.5.7. The Contractor has provided a Certificate of Conformity (CoC) that the equipment conforms to the contractual standards in ANNEX A SRS.

4.3.5.8. All services described in this SOW are handed over to the O&M provider.

4.3.5.9. The Contractor shall create a hand over checklist that will be validated at the FSA meeting and signed by the Purchaser and O&M provider POC for each site, if compliant.

4.3.5.10. The Contractor shall conduct an FSA meeting

4.3.5.11. The Contractor shall participate in the FSA Meeting, which shall be held at the Purchaser's premises in either Brussels, SHAPE or in The Hague, at the Purchaser's discretion.

4.3.5.12. The Contractor shall demonstrate at the FSA Meeting to the Purchaser that:

- All the conditions for FSA have been met.
- The As-Built Documentation pertaining to the site has been delivered to the Purchaser.
- The Purchaser has received and verified the accuracy of the deliveries inventory, which details all the deliverables to be supplied under the terms of the Contract.
- The Purchaser has received and verified the accuracy of the As-Built Documentation.
- The Contractor has provided a Certificate of Conformity (CoC) that the equipment conforms to the contractual standards.
- The Purchaser has received all Contract deliverables.

4.3.6. Engineering support

4.3.6.1. The Contractor as part of his project organisation and scope shall provide qualified personnel meeting the requirements described in Annex C for all work performed under the contract

4.3.6.2. In addition, for specific engineering support tasks required task Orders will be issued in accordance with Contract Special Provisions to provide engineering support for Migration, Security Accreditation and Post Migration Support tasks and any other ad hoc Tasks required during the duration of the Contract.

4.3.6.3. Any Task Orders issued will be of a minimum of 5 working days.

4.3.6.4. The Contractor shall provide the hourly labour rate and travel expense rate for each of the personnel profiles described in Annex C.

SECTION 5. INTEGRATED LOGISTICS SUPPORT (ILS)

5.1. Introduction

5.1.1. This section addresses the ILS requirements of the project. The purpose of this section is to ensure that the Contractor uses sound, best practice logistics to plan and implement the Logistics Support Concept, as well as to ensure timely and correct delivery of equipment.

5.1.2. The Contractor shall use the [AIA/ASD SX000i, 2016] specification as guidance when establishing and conducting the ILS Process, in accordance with the requirements of the contract.

5.1.3. An ILS Plan shall be provided describing all aspects of support and how the Contractor proposes to meet the ILS requirements.

5.1.4. This Plan shall include schedules that demonstrate how the Contractor proposes to meet all ILS requirements throughout the entire duration of the contract including the warranty period.

5.1.5. NCI Agency 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.

5.1.6. The Contractor shall be fully responsible for the delivery of the required 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

5.1.7. The Contractor shall appoint an ILS Manager who shall report to the Contractor's PM and be the point of contact to interface with the Purchaser ILS Officer.

5.1.8. The Contractor shall incorporate ILS activities and deliverables into the PMS or set up and manage a separate sub-ILS schedule.

5.1.9. The Purchaser's POC for all requirements laid out in section Integrated Logistics Support and Configuration Management will be:

> Mr. Heinz Mueller-Nordmann
> NCI Agency ACQ Senior ILS Officer
> Tel: +32 (0)65 44 6160
> E-mail: Heinz.Mueller-Nordmann@ncia.nato.int

5.2. Integrated Logistics Support Plan (ILSP)

5.2.1. The ILSP shall be a standalone Product Lifecycle document which shall be kept up to date by the Contractor.

5.2.2. A draft version of the ILSP shall be delivered 2 weeks after the Site Survey of the respective site.

5.2.3. The final ILSP shall be delivered at the applicable Design acceptance Milestone.

5.2.4. The acceptance of the ILSP by the Purchaser signifies only 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.

5.2.5. As a minimum, the ILSP shall describe the Contractor's:

- plans for the management control, interface, and integration of all elements of the Contractor's Integrated Logistics Support Programme with the system engineering and design processes

- organizational structure, procedures and activities implemented, followed and performed to ensure that logistics and the logistics support elements influence and interface with system design and other functional areas, to satisfy supportability criteria

- approach for each of the following logistics element:

    - Maintenance and Support,

    - Logistics Support Analysis (LSA) including Logistic Data and Supply Support

    - Training

    - Documentation

    - Packaging Handling Storage and Transportation (PHST),

    - Parts Obsolescence Management

    - Decommissioning and Disposal

    - Warranty including Return Material Authorisation (RMA) procedure

- ILS structure and the overall design process with his subcontractors, vendors and suppliers.

- Schedule of the ILS tasks, deliveries and a detailed description of the interaction of the ILS activities with the other activities performed.

5.3. Maintenance and Support Concept

5.3.1. The Maintenance and Support definitions applicable to the project are defined and detailed in ANNEX D.

5.3.2. The Contractor shall design/deliver the system/elements and the Support/Maintenance documentation, instructions, and resources (e.g. skills, spares, tools if procured) 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 (centralised) starting from Provisional Site Acceptance (PSA).

5.3.3. The Contractor shall be fully responsible, in accordance with the above defined Maintenance Concept, to deliver all the resources (e.g. spares, repairs, training, documentation, tools, test equipment etc. if procured), 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.

5.3.4. The Contractor shall be responsible, from PSA up to the end of the Warranty period for HL3/4 and SL3/4 maintenance activities, for the provision of repairs/spares and for the provision of remote and onsite technical assistance to support Organizational Level Maintenance.

5.3.5. 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 out by the Contractor using dedicated on-site interventions and shall aim for a Mean Time To Restore System (MTTRS) of 45 minutes following the receipt of Purchaser's request. The Contractor shall ensure the availability of required materials and tools (HW/SW).

5.3.6. The Organization Level maintenance shall be executed on site and include Preventative Maintenance, Corrective Maintenance, related troubleshooting activities.

5.3.7. Until PSA, the Contractor shall transfer all knowledge and documentation required to safely test, operate, troubleshoot, restore and maintain the capability to the Purchaser.

5.3.8. Starting PSA until the end of Warranty the Contractor shall provide onsite technical assistance on all support levels whenever required to enable the Purchaser to fully support, maintain and operate the capability.

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

5.4.1. The Contractor shall develop and document a detailed Logistic Support Analysis in accordance with the ASD S3000L Specification.

5.4.2. The Contractor shall propose to the Purchasers a tailoring of the S3000L Specification, in order to define as a minimum the following elements in accordance with the Maintenance and Support levels defined in ANNEX C and the maintenance concept defined in paragraph TBD:

- Logistics Breakdown Structure (LBS)

- Level of Repair Analysis identifying the maintenance level of each individual element of the LBS, both for Preventative and Corrective Maintenance

- Full and detailed range of Preventative Maintenance and Corrective Maintenance tasks (including troubleshooting) and relevant durations, periodicities, resources (skills/trades, tools, materials), Safety data/procedures.

5.4.3. The tailoring of the S3000L specification, the minimum dataset and the formats of the data/deliverables shall be agreed not later than Design Review.

5.4.4. This capability is considered as critical Infrastructure, therefore, the design of the capability shall aim to support the following RMA targets:

Abbreviation	Performance metrics	Target
AOR	Annual Operating Rate	100%
Ao	Operational Availability	99%
MTBF	Mean Time Between Failures	200hrs
MTBCF	Mean Time Between Critical Failures	1000hrs
MTTR	Mean Time To Repair	30min
MTTRS	Mean Time To Restore System	45min
MTBPM	Mean Time Between Preventive/Scheduled Maintenance	1 month
MTTS	Mean Time To perform Preventive/Scheduled Maintenance	6hrs

5.4.5. In close coordination with the Purchaser, the Contractor shall develop the system design and applicable support solution aiming to meet or exceed the RMA targets in 5.4.4

5.4.6. The ILS activities shall, as a minimum, generate the data, structures and deliverables required by this SOW, subject to Configuration Management as defined in paragraph SECTION 8 (Configuration Management) and under the Quality constraints defined in SECTION 7 (Quality Assurance and Quality Control).

5.4.7. The Contractor shall define and design the Maintenance tasks and resources associated to the new/modified/upgraded equipment in order to allow 95% of the failures to be recovered at Organizational Level (HL1/2 and SL1/2) by Purchaser personnel.

5.4.8. The Contractor shall provide the following data/elements for the HW (including FW) and SW delivered as part of this project, in conformance with the latest applicable Product baseline (PBL, see SECTION 8 (CM):

- Detailed hierarchical Logistics Breakdown Structure (LBS) down to the Maintenance Significant Item (MSI);

- MSIs category (Line Replaceable Unit - LRU, Insurance Item - II, Attaching Part - AP, Technical and/or non-Technical consumable, Next Higher Assembly - NHA, not-MSI);

- Full Configuration Management data (identification of Configuration Items - CIs, type of CI, relationships, dependencies) in accordance with STANAG 4427 Ed.3 (see SECTION 8 (CM):

- Maintenance Level (preventative, corrective, troubleshooting) associated to each individual item identified in the LBS;

- MTBF (Mean Time Between Failure) for each HW element down to MSI level and relevant calculation method (predicted, allocated, field data, specification)

- MTTR (Mean Time to Repair) for each HW element down to MSI;

- Preventative Maintenance periodicities and durations (Mean Time Between Preventative maintenance - MTBP and Mean Time To Preventive - MTTP as per guidelines given by MIL-HDBK-338B);

- Skills/Trades required;

- Population at each MSI level and QEI (Quantity per End Item);

- Safety instructions.

5.4.9. The Contractor's provided data/items Measures of Performance (MoP) (e.g. System RMA data) shall be equal or better than those associated to the items to be replaced/upgraded/updated and shall drive the Contractor's selection of the new HW and SW in order to reduce the Life Cycle Cost of the new equipment and ensure that the Purchaser Service Level Agreement (SLA) can be met.

5.4.10. The Contractor shall assess, document and provide Operational and Maintenance Instructions, to enable the Purchaser to Support the System up to Level 3 (centralised) and maintain it up to HL1/2-SL1/2 as per Maintenance/Support concept.

5.4.11. The Operational instructions shall specify the tasks, the processes and the resources required at each Support Level including the interaction/coordination with the Maintenance activities.

5.4.12. All LSA and RMA data shall be provided both as raw MS Excel tables, fully consistent with the LBS and the relevant PBL.

5.5.   Supply Support

5.5.1. Taking into account the system design, the maintenance and support concept, and RMA targets of this project, the Contractor shall calculate the required spares parts (LRUs, Insurance Items), technical and non-technical consumables, recommended tools and test equipment and provide the Purchaser with a priced Recommended Spare Parts List (RSPL) a Recommended Consumables Item List (RCIL) and Recommended Tools and Test Equipment List (RTTL) together with the design documentation at the applicable milestone.

5.5.2. The RSPL, RCIL and RTTL shall be part of the ILSP and shall be subject to approval by the Purchaser at Design Review.

5.5.3. The pricing of the items included in the RSPL shall be at the firm fixed prices of the equipment breakdown detailed in the appropriate tab of the bid submission.

5.5.4. The Contractor shall provide the following data for the recommended spares (RSPL) and recommended consumables (RCIL), for the installation sites, 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
- 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)
- Turn-Around-Time (TAT) or Lead Time (LT),

5.5.5. Spares will not be delivered through the base contract and will be subject to separate Task Orders.

5.5.6. The Contractor shall provide agreed spares (when procured through a Task Order), technical and non-technical consumables to the Purchaser which shall be subject to inventory No Later than (NLT) PCA.

5.5.7. In accordance with the warranty section, the repairs or replacement of all faulty items on site shall be under the responsibility and cost of the contractor.

5.5.8. Marking of equipment and cables

5.5.9. Labelling and marking shall be compliant with STANAG 4281 "NATO Standard Marking for Shipment and Storage" unless specified differently in the requirements of this Contract.

5.5.10. All equipment and cables including their connection points shall be labelled in compliance with Purchaser regulation and guidance. Labels shall at least contain the OEM's CAGE/NCAGE code, part number and serial number to ensure proper and quick identification of equipment down to the LRU level.

5.5.11. Labelling shall be accomplished in a manner that will not adversely affect the life and utility of the assembly or module. Whenever practicable, the label shall be located in such a manner as to allow it to be visible after installation.

5.5.12. Marking shall be as permanent as the normal life expectancy of the material on which it is applied and shall be such as required for ready legibility and identification. Marking shall be capable of withstanding the same environment tests required of the part and any other tests specified for the label itself. When possible, letters, numerals, and other characters shall be of such a size as to be clearly legible.

Cables shall be labelled at their termination points indicating both ends and connection points. Labelling scheme shall be in line with the Purchasers labelling guidance and reflected in related technical design and technical documentation.

5.6. Technical Documentation and logistic data

5.6.1. 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):

- Manuals
- System Inventory
- Software Distribution List (SWDL)
- As-Built Documentation and Interface Control Documents

5.6.2. During the design phase and during implementation, the Contractor shall fully document the design, operation and maintenance of the Balkans IT Technical Refresh.

5.7. Manuals

5.7.1. The Contractor shall develop manuals to safely operate, troubleshoot, maintain and support the system based on ASD S1000D Spec.:

5.7.2. The documentation shall include as a minimum:

- HL1/2 and SL1/2 Maintenance Manuals, including:
  - System description, controls and indicators
  - Corrective, Preventative and Troubleshooting procedures down to MSI level
  - Illustrated Parts Catalogue
- Support Levels 1, 2 and 3 Instructions, including:
  - Operating Instructions
  - HW and SW Monitoring
  - Network description and management
  - SW installation, policies management, fine tuning
  - SW troubleshooting, debugging, patching, re-installation
  - SW performance improvement procedures
  - System Administrator instructions
- COTS Manuals

5.7.3. The Contractor shall deliver the COTS OEM Manuals in their original format and pdf for all assets (HW and SW) delivered through this contract.

5.7.4. Manuals formats and templates, shall be agreed by the Contractor and the Purchaser at least twelve (12) weeks before the PSA date if not agreed otherwise.

5.7.5. Manuals shall be used for the T3 training and available for PCA. A final draft of the Manuals shall be delivered 4 weeks before training is taking place.

5.7.6. The final version manuals shall be delivered at PSA for review and acceptance.

5.8.   System Inventory

5.8.1. The Contractor shall provide the Purchaser with a System inventory at least 10 Days before equipment delivery.

5.8.2. The system inventory shall be site specific and shall include all the items furnished under the project as follows:
- All items (both Commercial Off The shelf - COTS and developmental Items - DIs, both HW and SW) down to MSI level, hierarchically structured and conforming the LBS 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 HW and SW), 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 MSI category)
- All documentation (manuals, training material/handbooks, as built drawings, plans, procedures, data records etc.)
- Data requested in paragraph supply chain security.

5.8.3. The inventory shall contain the as a minimum the following information:

Field	Description
CLIN	Contract Line Item Number (number10 digits maximum). Sequence number assigned to a particular line item in a given contract. The combination CLIN-Contract No. shall always be unique.
Nomenclature	Short Item Description (text- 35 digits). Should always start with the main item name followed if possible by a technical specification, followed by the next higher assembly names in hierarchical order, separated by commas. E.g. for a coax connector of a television cable the nomenclature should read: CONNECTOR, COAX, CABLE, TELEVISION.
EQRE (XB/ND)	Code (text-2 digits). Defines whether an item is repairable (ND)

	or not (XB) from a technical point of view.
True Manufacturer Part Number	True Manufacturer P/N (text-32 digits). Part Number given to this item by the original manufacturer.
True Manufacturer Code (or complete name and address)	True Manufacturer Code (text-5 digits). Code of the Company that has manufactured this item. This is an internationally recognized 5-digit code which is unique to that company. It corresponds to the "cage code" in the USA. Manufacturer Codes and Cage Codes are obtainable from the national governmental authorities or, if it already exists, from the "NATO Master Cross-Reference List" (NMCRL) obtainable from NAMSA. In case the code cannot be obtained, it will be sufficient to enter the complete name and address information of the true manufacturer.
Vendor/Contract or Code (or complete name and address)	Vendor (Contractor) (text-5 digits). Company which sells the item or the complete system to which this item belongs. The vendor is the company with which the contract is placed but is not necessarily the true manufacturer of the item. If the vendor company has also designed and integrated the complete system it is also known as Original Equipment Manufacturer (OEM). The company code is an internationally recognized 5-digit code which is unique to that company. It corresponds to the "cage code" in the USA. Manufacturer Codes and Cage Codes are obtainable from the national governmental authorities or, if it already exists, from the "NATO Master Cross-Reference List" (NMCRL) obtainable from NAMSA. In case the code cannot be obtained, it will be sufficient to enter the complete name and address information.
Vendor/Contract or Part Number	Vendor (Contractor) P/N (text-32 digits). Part Number given to this item by the company which sells the item or the complete system to which this item belongs. The vendor is the company with which the contract is placed but is not necessarily the true manufacturer of the item.
QTY ordered	Item Quantity (number-5 digits). Shows the quantity of this item ordered as individual item in this contract, i.e. if it is not delivered built-in in another unit. In case the item is not ordered as individual item or as spare unit but is built-in in another assembly, enter "0" (zero) in this field and complete fields: "Part Number of next higher assembly" and "qty in next higher assembly". Serialised items shall only have a quantity of 1.
Order Unit	Order Unit (text-2 digits). Unit under which the item is sold, e.g. each, set, meter, etc.
Serialized Item	Serialized Items Tag (text-1 digit). Add a "Y" if the item carries

Tag	a serial number independently whether serial numbers is already known or not. If known, complete column "Serial Number".
Serial Number	Serial Number. If Serialized Item Tag is "Y" (yes) then add serial number here. (1 serial number per line). If system is already installed, then the Contractor shall indicate here the serial numbers installed at user site. For items to be delivered to depots the Contractor may not know the serial number in advance, in that case it will be completed by the receiving site.
Serial Number Software Revision Level	Software Revision Level (text- 30 digits but can be expanded as necessary) If item carries a serial number and field "serial number" is completed, add SW revision level / version here if appropriate.
Serial Number Hardware Revision Level	Hardware Revision Level (text- 30 digits but can be expanded as necessary) If item carries a serial number and field "serial number" is completed, add HW revision level / version here if appropriate.
Other Serial Number attributes	Other Serial Number Attributes (text-to be defined). This field will be used and defined on a case by case basis to be decided by NCIA System Manager, NCIA and the Contractor for other attributes which might be required for a particular system.
Subject to Property Accounting	(text-1 digit). NCIA will decide whether or not item is subject to property accounting and is to appear on the customer balance lists. This field will be completed Y or N by NCIA.
Currency	Currency (text-3 digits). International 3-digit code (ISO) representing the currency in which the item purchase price (or the estimated value) is expressed.
Price	Item Price (number-11 digits). Unit price with 2 decimals.
Warranty Expiration Date	Warranty Expiration Date (date: DD/MM/YY). Shows the date on which the warranty of this item expires, which is usually N days after delivery of the item. If delivery is scheduled for a certain date, warranty expiration date = delivery date + warranty period in days.
Receiving / Inspection Depot	Receiving / Inspection Depot (TXT-2 digits). Information will be provided to Contractor by the Purchaser's ILS Officer. This is the depot to where the vendor ships the material. Normally this depot will receive, inspect and put the material in stock against Dues-In to be created in accordance with Qty in

	column "Qty Ordered". In case of a deviation from this rule, the Purchaser will inform the Contractor of the correct final Depot and through which depot the items shall have to transit.
Issue to customer	Customer Code (text-4 digits - to be completed by NCIA). Code representing the customer to which the item(s) shall be shipped by the receiving/ inspecting depot.
Extended Line Item Description	Extended Line Item Description (text-no limit). Any additional information concerning this item shall be entered here, e.g. technical specifications, configuration, reference to technical drawings or manuals etc.…
Part Number of next higher assembly	Part-Number of Next Higher Assembly (text-32 digits) If item is built-in another assembly, indicate part number of that assembly here.
Qty in next higher assembly	Quantity in Next Higher Assembly (number-3 digits max). This field shows the built-in quantity of the item in the next higher assembly. This information shall be provided for configuration control purposes.
Qty installed at Operating Unit (Customer Site)	Quantity installed. This field is only applicable when the delivery is direct to an operating unit (customer site). However in that case it is mandatory. For non-serialized items it shows total quantity installed. For serialized items quantity shall only be one per serial number. Use a new line for each serial number.
Technical integrity and protection from malicious tampering (see supply chain security)	In this field, the Contractor shall confirm per item, that the items to be delivered have been checked for technical integrity and protected from malicious tampering.
Supplier identity (see supply chain security)	The Contractor shall identify per item, the identity of the supplier of the item and the identities of suppliers of major components thereof.

Table 10 System Inventory

5.8.4. The Contractor shall provide a detailed Software Distribution List (SWDL), which will detail comprehensively all Computer Software Configuration Items (CSCI) and associated software, firmware or feature/performance licenses provided

under this Contract. The Contractor shall ensure the SWDL includes the following elements:

- Computer SW Configuration Item (CSCI) identification number
- 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 different from Qty=1)
- Price per license (and eventually discounts by quantity)

5.9. As-Built Documentation and Interface Control Documents

5.9.1. The Contractor shall deliver or modify a full set of As-Built documentation (ABDs), one for each site, in electronic format.

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

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

5.9.4. 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.

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

5.9.6. 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.

5.9.7. 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 colour 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.

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

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

5.9.10. As-Built documentation (ABDs), shall be used during T3 trainings and available for each PCA. A mature draft of the ABDs shall be made available at least 4 weeks before training is taking place and 2 weeks before respective PCA.

5.9.11. The final version manuals shall be delivered at PSA for review and acceptance.

5.10. Training

5.10.1. The Contractor shall support training efforts to enable the Purchasers' staff to safely operate, support and maintain the system in line with the maintenance and support concept.

5.10.2. The Training Program shall be based on the results of Training Needs Analysis (TNA) to be performed by the Contractor. The data for this shall be obtained as much as possible during the Site Surveys activities and shall show the mapping between the results of the Training Needs Analysis, the knowledge gaps identified, and the Training Program.

5.10.3. As part of the system implementation at each site, the Contractor shall support on-site training and knowledge transfer to all support staff designated by the Purchaser in order to enable the Purchaser to perform all tasks required to safely operate, maintain, administrate, and recover the system.

5.10.4. During System implementation and with the input of the Purchaser staff, the Contractor shall develop a Train-the-Trainer (T3) package enabling Purchaser's Representatives to become instructors capable of training other personnel to operate, support and maintain the system in line with the maintenance and support concept.

5.10.5. Technical documentation produced for this project shall be used for the T3 training package to the maximum extent possible.

5.10.6. In addition to the Train-the-Trainer (T3) training package, the Contractor shall organise general training as listed in the table of required training courses in this section.

5.10.7. The Contractor shall explain the detailed planning of the Training within the ILS Plan.

5.10.8. The training planning shall as a minimum include the following:
- Description of the training organization and personnel;
- Course and on-site training description. This shall be a narrative explanation of the subject matter of the specific course;
- Proposal of hands-on on-site training hours during system implementation;
- Student prerequisites (if required);
- Method of presentation for each course topic (i.e., lecture, CBT, hands-on and online etc.);
- Description, provision and delivery of the training equipment to be used;
- Proposed schedule for training courses.

5.10.9. Training and training material shall be provided in English language. Course instructors shall be proficient in English at professional level comparable to SLP 4333 (STANAG 6001).

5.10.10. The formats and templates for The Train-the-Trainer (T3) training data and material, if any, shall be agreed by the Contractor and the Purchaser at least twelve (12) weeks before the PSA date if not agreed otherwise.

5.10.11. The Train-the-Trainer (T3) training package (training data and material) shall be delivered to the PM and the ILS Officer in electronic format not later than four (4) weeks before the expected training for NCIA review and acceptance before training start.

5.10.12. 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 NCIA to achieve acceptance and deliver the training accordingly.

5.10.13. After training conduction, a course training report shall be submitted to the Purchaser.

5.10.14. The Train-the-Trainer (T3) training session shall be performed and completed by the Contractor on the implemented and integrated system at the applicable site and accepted by the NCIA before PSA is granted.

5.10.15. In addition to the on-site training, the Contractor shall provide general training in Europe as listed in the table of required training courses below.

Course title	Number of participants
McAfee 3 Day ePO & Endpoint Security Administration Course	3
VMware vSAN: Deploy and Manage [V6.7]	3
CISSP Training and Certification Exam Preparation	3
Implementing CISCO Data Centre infrastructure (DCII)	1
Introducing Cisco Data Centre Networking (DCICN)	2
Implementing and Operating Cisco Collaboration Core Technologies" (CLCOR)	1

Implementing Cisco IP Switched Networks v2.0 (SWITCH)	1
Administering a SQL Database Infrastructure Training (20764)	1
Dell Networking Data Center Advanced Features & Administration - EMEA	2

Table 11 General Traning Courses/No of participants

5.10.16. The course fees including certification and training material shall be covered by the Contractor.

5.10.17. Costs for travel and accommodation for Purchaser's training attendees, will the covered by the Purchaser.

5.10.18. Training Needs Analysis (TNA)

5.10.19. The Training Process and Procedures shall be based on the results of the Training Needs Analysis (TNA) to be performed by the Contractor.

5.10.20. The Contractor shall conduct a Training Needs Analysis (TNA) in accordance with the [BiSC D-075-007, 2015]. The TNA shall include (as a minimum).

5.10.21. Target Audience Analysis,

5.10.22. Performance Gap Analysis,

5.10.23. Difficulty, Importance and Frequency (DIF) Analysis,

5.10.24. Training Delivery Options Analysis,

5.10.25. The Training Needs Analysis shall consider all assigned staff roles involved in System operation, administration, maintenance and support at all levels.

5.10.26. The Contractor shall identify the eventual prerequisite of the personnel for training participation as part of the training needs analysis.

5.10.27. The Contractor shall deliver a TNA Report that captures the results of the TNA. The TNA report shall include the following:
- a description of the TNA approach and activities,
- an account of the operation, support, corrective and preventive maintenance tasks considered in the TNA,
- the results of the Target Audience Analysis, the Performance Gap Analysis the DIF Analysis and the Training Options Analysis, the final list of Performance Objectives (LOPS) in the form of Table 2 of Annex J of [BiSC D-075-007, 2015], the final list of Learning Objectives in accordance with Annex G of [BiSC D-075-007, 2015], one or more Course Control Document II – Course Proposals in accordance with Annex L of [BiSCD 75-7, 2015] as summaries of the proposed E&IT solutions.

5.10.28. Training course evaluation

5.10.29. For the Train the Trainer (T3) course, the Contractor shall propose assessment and evaluation methodology to the purchaser as part of the Training Plan.

5.10.30. Training Assessment methodology shall be based on [BiSC D 75-7 2015] sections 7-6 and 7-7 for assessment approaches and instruments and include as a minimum:

5.10.31. Examination methodologies and certification.

5.10.32. Minimum score to achieve for successfully passing the course.

5.10.33. Course(s) to be done to get the certification for each role.

5.10.34. Description of Role's certification process.

5.10.35. The Contractor shall ensure that each student is instructed at the end of each Instructor led or eLearning course to complete and return the course evaluation feedback form provided as part of the course.

5.10.36. The Contractor shall consolidate and forward student feedback to the Purchaser following each training course in the form of a Training Evaluation Report. The report shall recommend changes and improvements to the training plan based on the consolidated student feedback. The report shall address student attendance, problems encountered and actions taken to resolve the problems.

5.10.37. The Contractor shall revise/ refine and reissue course material and E Learning products to reflect the consolidated student feedback and proposed improvements in the training evaluation report.

5.10.38. The Contractor shall produce Training Certificates for each training session and student. The certificates shall be delivered not later than two weeks following the completion of the training.

5.10.39. For commercial courses, the Contractor shall submit a copy of the training certificate for each training session and student. The certificates shall be delivered not later than two weeks following the completion of the training.

5.11. Packaging, Handling, Storage, Transportation (PHST)

5.11.1 General Transportation Requirements:

5.11.2. The Contractor shall ship all equipment to the requested locations in the Bidding Sheets.

5.11.3. The Contractor shall coordinate each shipment with Purchaser POC taking into account the requirements in Section 5. Address details for the delivery destinations below will be provided by the Purchaser.

- Pristina
- Sarajevo
- Belgrade
- Skopje
- Thessaloniki
- Naples
- SHAPE

5.11.4. The Purchaser will ensure that an adequate staging area is in place at reception of the equipment.

5.11.5   The Contractor shall set up and maintain a shipment schedule overview comprising all shipments related to this contract. The overview shall entail (but not limited to) data such as:

- Shipment due date; scheduled date; execution date
- Shipment site
- Notice of shipment due and submission date
- Packing list due and submission date
- 302 request due and submission date (if required)
- Inventory due and submission date
- Delivery receipt confirmation submission date

5.11.6. All materials covered under the Contract, including items being returned after warranty repair, shall be shipped by the Contractor Delivered Duty Paid (DDP), in accordance with current INCOTERMS published by the International Chamber of Commerce, to the addresses specified.

5.11.7. The Contractor shall provide to the Purchaser the Notice of Shipment and corresponding documentation at least ten (10) days before shipment.

5.11.8. The Contractor shall provide the Purchaser with a site specific System Inventory as specified in section "Inventory" of this Contract No later than 10 Days before equipment delivery.

5.11.9. The Contractor shall ensure coherence between data provided within the contract deliverables such as Notice of Shipment, Packing lists, Inventories.

5.11.10. The Purchaser's point of contact for any issue related to shipment shall be:

> Mr. Heinz Mueller-Nordmann (NCIA)
> Tel: +32 (0)65 44 6160
> E-mail: Heinz.Mueller-Nordmann@ncia.nato.int

5.11.11. The Contractor shall provide a copy of the delivery confirmation to Purchaser's point of contact, in order to facilitate the invoicing process.

5.11.12. In case a shipment is composed of one or more pallets, a pallet shall be defined as the standard Euro-pallet (EUR/EPAL; 1200mm x 800mm), packed to a height as close as practicable to a total maximum height of 1800mm, and not exceeding a total weight of 1000 Kg.

5.11.13. Prior to shipments containing Lithium cells or batteries, the Contractor shall obtain a test summary/certificate in accordance with the test procedure described in the "UN Manual of Tests and Criteria, (Sub-Section 38.3)".

5.11.14. A copy of the test summary/certificate shall be provided together with the Notice of Shipment.

5.11.15 At final destination, the Purchaser's ILS and Security POC will visually inspect all deliveries for transportation damage and verification against packing and inventory lists. The Contractor shall take back and replace any damaged items, and correct any discrepancies with the packing and inventory lists, at no

additional cost to the Purchaser, and without affecting the major milestone dates. This process shall also be applied for the items shipped back from warranty repair or replacement.

5.11.16. At the Purchaser designated staging area, the Contractor shall unload the equipment in Purchaser debarkation area and hand-over the equipment to the Purchaser for further shipment. The Contractor may use any support equipment provided by the Purchaser, but remains responsible for organizing and using any support equipment required to offload. The Contractor shall ensure that any requirements related to delivery of the system are obtained from the Purchaser in advance of shipments.

5.11.17. The Purchaser will not be liable for any storage, damage or any other charges involved in such transportation of supplies prior to the actual acceptance of such supplies at destination.

5.11.18. The Purchaser will not accept responsibility and/or ownership of the equipment before acceptance is complete.

5.12.   Notice of Shipment

5.12.1. The Contractor shall provide the Notice of Shipment ten (10) days prior to the delivery of any shipment of supplies in accordance with the instruction of the Purchaser.

5.12.2. This notice shall be provided electronically and shall include the following information:

- Purchaser Contract Number.

- Contract line Item Number (CLIN), designation and quantities.

- Name and address of the Contractor, Purchaser and Consignor.

- Final destination address and POC.

- Manufacturer, Manufacturer Part Number, Nomenclature, Items Description, Quantity, Serial Number.

- Number of packages/containers, dimensions and gross weight.

- Consignors and Consignees name and address.

- Mode of shipment (e.g.: road, air, sea).

- Date of shipment.

- Number of the Form 302 used (if required).

- Final/Partial Shipment.

- For each item shipped: Contract Line Item Number (CLIN) number as per the SSS; nomenclature; part number; serial number; and quantity.

5.12.3 For each box, pallet and container: box/pallet/container identification number and number of boxes/pallets/containers; weight; dimensions.

5.13.   Packaging and Packing list

5.13.1. The Contractor shall, for the purpose of transportation, package, crate, or otherwise prepare items in accordance with the best commercial practices for the types of supplies involved, giving due consideration to shipping and other hazards associated with the transportation of consignments overseas.

5.13.2. The Contractor shall produce and provide packing lists that accompany each shipment, which will include the following:

- The Purchaser's Contract number (CO-15049-BITI)

- The Purchaser's Purchase Order number (PO)

- 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: Contract Line Item Number (CLIN) number as per the SSS; nomenclature; part number; serial number; and quantity

- For each box, pallet and container: box/pallet/container identification number and number of boxes/pallets/containers; weight; dimensions

5.13.3. The Contractor shall ensure that one copy of the packing list is fastened in a weather-proof, sealed envelope on the outside of each box, palette and/ or container, and one packing list put inside each container/box.

5.13.4. In the case of dangerous goods and goods requiring export licenses, the Contractor shall ensure that all required forms and certificates are provided and that all regulations for such goods are followed.

5.13.5. Any special packaging materials required shall be provided by the Contractor and disposed-off by the Contractor after unpacking, insofar as the packaging is not retained with the system (e.g. for storage of spares or return of failed equipment).

5.13.6. The Contractor shall be responsible for establishing an adequate supply chain security process and taking the necessary measures.

5.14.   Customs

5.14.1. The Contractor shall be responsible for the provision of the Custom Form 302 to the Freight Forwarder as required (a customs declaration form 302 is required for all shipments entering into any EU state from a non-EU Nation).

5.14.2 Prior to a shipment by the Contractor, the Purchaser will upon request issue a Customs form 302 which in some cases may facilitate the duty free import/export of goods.

5.14.3 The Contractor shall be responsible for requesting the issue of a form 302 at least ten (10) working days prior to shipment. A customs form 302 request template can be obtained from the Purchaser.

5.14.4 The request for a Form 302 shall be included with the Notice of Shipment and accompanied by one (1) additional packing list. The request is normally processed by the Purchaser within five (5) working days. The requested 302 forms will then be sent as originals by courier to the Contractor. The original 302 forms shall accompany the shipment and therefore no fax or electronic copy will be used, nor provided to the Contractor.

5.14.5 The Contractor shall be responsible for customs clearance of all shipments into the destination countries. It is the Contractor's responsibility to take into account delays at customs. The Contractor shall therefore consider eventual delays and arrange for shipment in time. Under no circumstances can the Purchaser be held responsible for delays incurred, even when utilising Purchaser provided Customs Form 302.

5.14.6 If a country refuses to accept the Form 302 and requires the payment of customs duties, 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.

5.14.7. Only after having received Purchaser's approval, the Contractor shall pay these customs duties and shall claim reimbursement to the Purchaser.

5.14.8. Forwarding Agents, Carriers or other responsible organizations shall be informed by the Contractor of the availability of Form 302 or equivalent document and how the form shall be utilized to avoid the payment of custom duties.

5.14.9. The Contractor shall be responsible for managing and performing all activities that is necessary to obtain export licenses for the goods requiring such licenses.

5.14.10. The Contractor shall provide a detailed list of the equipment requiring export licenses. The Contractor shall provide the necessary procedures that needs to be applied for items to be relocated for repair or any other purposes.

5.15. Supply Chain Security

5.15.1. The Contractor shall warrant that all supplies furnished under this Contract are genuine and free of malicious components, firmware and software.

5.15.2 The Contractor shall ensure that all equipment to be delivered are protected from malicious tampering and external intervention during storage and transportation up to the point of delivery.

5.15.3. The Contractor shall confirm in the inventory, per item, that the items to be delivered have been checked for technical integrity and protected from malicious tampering.

5.15.4. The Contractor shall also identify in the inventory, per item, the identity of the supplier of the item and the identities of suppliers of major components thereof.

5.15.5 The Contractor shall allow and support ad-hoc spot checks and audits by the Purchaser of any of his supply chain security measures at any of the Contractor's locations and facilities used in the Contractor's supply chain relevant to this Contract.

5.15.6 The Purchaser reserves the right to reject any equipment delivered which does not conform to the description provided in the Inventory or shows evidence of tampering. The Contractor shall replace such rejected goods at no cost to the Purchaser.

5.15.7 The Contractor shall provide a Supply Chain Security statement affirming that the security of the supply chain for all CIS products to be delivered has been assessed in accordance with the requirements in [NAC AC/322-D(2017)0016, 2017].

5.15.8. If requested, the Contractor shall provide a Supply Chain Security document to explain their end-to-end supply chain processes and all parties involved in the supply chain from original manufacturer until the delivery at Purchaser facility.

5.16. Obsolescence

5.16.1. Until the end of warranty, the Contractor shall monitor the technology and equipment used as part of its obsolescence management process and shall notify the Purchaser immediately in the event that obsolescence issues are identified.

5.16.2. In particular the Contractor shall monitor the following factors:

a. end of production,
b. end of sale,
c. end of support

5.17. Decommissioning and Disposal of Equipment

5.17.1. The Contractor shall decommission and Inventory Customer's legacy equipment that will be replaced by equipment in scope of this project.

5.17.2. The Contractor shall move decommissioned equipment to storage areas identified by the site POC for disposal.

5.17.3. The disposal of any legacy equipment will be the responsibility of NATO, in compliance with applicable policies.

5.17.4. The Contractor shall be responsible for the disposal of all packaging material resulting from the installation activities.

5.17.5. The Contractor shall unpack all equipment at the site, separate and sort packing materials and move to a location on site for recycling or disposal as directed by the Purchaser's Site POC. The Contractor shall directly dispose of the packaging off site if so directed by Purchaser's Site POC.

5.18. Assumptions Limitations and Exclusions

5.18.1. The Purchaser shall not be liable for any storage, damage, or any other charges involved in transporting of supplies prior to the actual acceptance of such supplies at the designated destinations.

5.18.2. The Purchaser cannot be held responsible for any delays in implementation in the case of unavailability of facilities or materials with the exception of PFE equipment or facilities. The Contractor shall be solely responsible to acquire alternative facilities/material to assure proper storage, handling etc.

5.18.3. The Contractor shall not be responsible for the correction of defects in Purchaser Furnished Equipment or Property.

5.18.4. Deliverables received at NCI Agency facilities shall remain under Contractor's responsibility until formal acceptance.

5.18.5. The Contractor is responsible for all charges relating to storage, damage and ancillary costs in the transporting of all the items and supplies and for any shipment loss shall.

5.18.6. The Purchaser shall not be liable for any storage, damage or any other charges involved in such transportation of supplies prior to Acceptance.

5.18.7. Where manufacture is under Government Quality Assurance Authority (GQAA) surveillance, there is a requirement for Certificates of Conformance to be included with packing containers, three each per pack, one inside and two outside in a waterproof envelope.

5.18.8. The Contractor shall be aware that, due to NATO security constraints all failed magnetic and electronic media storage (e.g.: hard disks/drives) can only be repaired or replaced on-site and cannot be removed and/or returned to the Contractor for repair. Defect magnetic and electronic media storage devices (e.g.: Compact Discs (CD), Disk Array, diskettes, hard drives, USB memory devices) will therefore be destroyed on-site by the Purchaser. Defect magnetic and electronic media shall therefore be replaced by the Original Equipment Manufacturer at no extra cost to the Purchaser.

5.18.9. If the Contractor becomes aware at any time before acceptance by the Purchaser that a defect exists in any supplies, the Contractor shall promptly correct the defect.

5.19. Warranty

5.19.1. The Contractor shall warrant all items (HW and SW) furnished under this contract for a minimum of twelve (12) months following FSA.

5.19.2. At PSA, the Purchaser will take title of the equipment and will perform the Operation, Maintenance and Support Activities defined in the Maintenance Concept.

5.19.3. The warranty period shall start at PSA and shall complete not earlier than 12 months from FSA, except for extensions due to any Contractor induced delays.

5.19.4. All activities required to keep the Site operational beyond the responsibilities of the Purchaser, as per Maintenance Concept, including the provision of materials/repairs/tools, shall be under the responsibility of the Contractor until the end of Warranty.

5.19.5. The warranty shall cover the installation and integration activities, workmanship, adaptations, changes, analyses, documentation, software, firmware, licences

and the equipment specifically provided by the Contractor for the purposes of the current Project and shall exclude all other equipment provided as PFE or NFE.

5.19.6. In the warranty period, the Purchaser will inform the contractor of any defect on HW, SW, documentation and Labour through the issuance of Warranty Claims that the contractor shall take in charge and solve i.a.w. the given timelines.

5.19.7 The Contractor shall warrant that all equipment and software delivered and all installation work performed under this Contract conform to the requirements and are free of any defect in material, code or workmanship during the warranty period.

5.19.8 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 major1 deficiencies.

5.19.9 The Contractor shall manage and correct all major deficiencies as class I changes in accordance with the requirements defined in SECTION 8 (Configuration Management).

5.19.10 The Contractor shall manage and correct all minor deficiencies as class II changes in accordance with the requirements defined in SECTION 8 (Configuration Management).

5.19.11. The Contractor shall warrant that all equipment and software delivered 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.

5.19.12. The Contractor shall warrant that documentation and training provided in the scope of the project reflects the system delivered.

5.19.13. If the documentation does not sufficiently reflect the product, the Contractor shall provide the updated documentation within 14 calendar days upon Purchaser's request.

5.19.4. In case of failures of NFE/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 under its responsibility, with the highest priority allocated and shall be responsible to return the item to the destination site.

5.19.5. The repairs/replenishments under warranty condition shall be at no cost for the Purchaser.

5.19.6. The replenishment/repairs of all HW items (delivered as part of the project) failing in the timeframe between each PSA and the end of Warranty (except

Purchaser induced failures) of each phase shall occur in times not exceeding the Lead Times and/or Turn-Around Times declared by the contractor in section supply support.

5.19.7. If the updated/upgraded systems/services are unserviceable for a period of time, during the implementation of this Project, due to Contractor induced failures (conditions above apply), the warranty period shall be extended accordingly for the amount of time the system has been unserviceable without any cost to be incurred by the Purchaser.

5.19.8. Shipment/Transportation of unserviceable items to the Contractor for repair/ replacement and the return to sender is the responsibility and cost of the Contractor.

5.19.9. Return of unserviceable equipment to Contractor facility for warranty repair/replacement shall be directly to the Contractor's facility at the address which shall be indicated by the Contractor ILS Manager.

5.19.10. 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.

5.19.11. 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.

5.19.12. The Contractor shall provide Technical Assistance to the Purchaser or his representatives until the end of the warranty. Technical assistance information details shall be provided at Design Review. Technical Assistance shall be provided from assistance centres located strictly within NATO countries boundaries and by staff who are nationalised citizens of NATO member nations.

5.19.13. 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.

5.19.14. Under the warranty arrangements (from PSA), the Contractor shall provide 24/7 reactive maintenance/support to the Purchaser based on a combination of:

- 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)
- On-site intervention for any critical issue beyond the Purchaser responsibilities and/or capabilities including the provision of On-the-Job-Training (OJT)/instructions/documentation to purchaser personnel during the solution of the problem.

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

- Full access (credentials) to the Knowledge Base (or similar DB) portal of the Contractor/Supplier 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 management)
- Support, through a Single Point of Contact (SPOC) for HW/SW/FW settings/improvements to increase Security and Performance of the delivered equipment.

5.19.16. All activities and issues arising before and during the warranty period shall be reported in the PRM minutes and related Action Item List for tracking and closure purposes or any other means as agreed with the Purchaser.

1 [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.

SECTION 6. TEST, VERIFICATION, VALIDATION AND ACCEPTANCE

6.1 Introduction

6.1.1. This section details the Test, Verification, Validation and Acceptance (TVV&A) processes to be applied and performed under this Contract.

6.1.2. The Contractor shall produce a Test and Acceptance Plan (TAP) that details all TVV&A activities to meet the requirements in the SOW and SRS. The Purchaser will review the TAP and approve once all deficiencies have been corrected. The Purchaser will monitor and inspect the Contractor's TAP activities to ensure compliance.

6.1.3. The Contractor shall provide Test Report(s), including a Security Test Report, to the Purchaser following the completion of any TVV&A event. The Purchaser will approve the report and its findings within two business days.

6.1.4. Remediation of inaccurate or inadequate TVV&A deliverables and any subsequent work arising as a result shall be carried out at the Contractor's expense.

6.1.5. The Contractor shall provide an overall project Test Manager, who will work closely with the Purchaser's assigned TVV&A lead through the execution of all TVV&A activities.

6.1.6. The Contractor shall provide regular status reports to the Purchaser regarding test planning, preparation and execution progress.

6.1.7. The Contractor shall have the overall responsibility for meeting the TVVA requirements and conducting all related activities defined in table below.

TVVA Phases	Scope	Purchaser Involvement
IVV Assessment	Independent assessment performed with Purchaser and led by Contractor to determine whether or not a system satisfies user needs, functionality, requirements, design specifications and user workflow processes before it goes into operation. To ensure verification of quality criteria for the following tests must be performed during the TVVA Assessment: - **System Acceptance Test (SAT)** – Tests focused on ensuring compliance with the requirements outlined in the SOW.	**Review**: Security Test and Verification Plan (STVP), Test Cases/Scripts, Test Report, Test Data, Test Environment Baseline, Existing defects **Participate**: TRR, Test Execution, Test Results Review, User Reviews (including internal users)

TVVA Phases	Scope	Purchaser Involvement
	- **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 - **User Acceptance Test (UAT)** – Scenario based testing, focused on validating the system as per user needs. - **Security Tests** – Tests focused on ensuring the security criteria are met.	
Site Acceptance Testing	To ensure that the specific site/node is installed properly per site/node installation plan and the service meets the requirements stated in the SRS. 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.	**Review**: Test Plan, STVP, Test Cases/Scripts, Test Report, Test Data, Test Environment Baseline, Existing defects **Participate**: TRR, Test Execution, Test Results Review

Table 12: List of TVV&A Phases

6.2 Testing

6.2.1. The Contractor shall respond to any Purchaser clarification requests regarding test results or performance within two working days.

6.2.2. The Contractor shall ensure that rigorous testing, including regression testing when required, is performed at every stage of the project build lifecycle in order to identify and correct defects as early as possible and minimize impact on cost and schedule.

6.2.3. The Contractor shall conduct all testing in accordance with specified implementation test requirements.

6.2.4. The Contractor shall support TEMPEST spot-testing of TEMPEST-certified components delivered by the Contractor to ensure they meet the requirements of SDIP-27 TEMPEST levels. This will involve making hardware available for

sample testing at a NATO facility in Mons or Brunssum or another Purchaser approved TEMPEST testing facility. Transporting the equipment to and from the testing facility shall be the Contractor's responsibility and at the Contractor's expense.

6.3   Independent Verification, Validation and Acceptance (IVVA)

6.3.1. All deliverables supplied by the Contractor under this Contract shall be independently verified and validated by the Purchaser to ensure compliance with the stated SOW clause, requirement specification or final design.
IVVA will take place once the build phase(s), engineering testing, qualification testing and Factory Acceptance (FA) have been completed.

6.3.2. The Contractor shall be responsible for the planning, execution and follow-up of all IVVA 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 IVVA events to witness and assist with these events.

6.3.3. All non-testable deliverables produced by the Contractor will be verified by the Purchaser using the technique agreed in the RTM/VCRM.

6.3.4. The Contractor shall identify and communicate to the Purchaser which best practices and international standards will be applied.

6.3.5. The Contractor shall submit the draft test cases for the IVVA event to the Purchaser for approval no later than four (4) weeks before the execution of the tests, unless differently stated in a work package. The Purchaser shall provide comments or approval within two (2) weeks of receipt. The purchaser must have the final version of the test cases available one (1) prior to a TVVA event.

6.3.6. The contractor shall conduct a Test Readiness Review (TRR) meeting at least two (2) days before each IVVA event.

6.3.7. The Contractor shall conduct a Test Review Meeting (TRM) no more than one (1) day following an IVVA event. The Contractor shall ensure that the Purchaser and Contractor agree on the results of the event following the TRM. If agreement is not reached, the disputed items shall be escalated to the Purchaser's and Contractors Project Managers.

6.3.8. The Contractor shall strictly follow the Purchaser's IVVA process, document templates and guidance provided by the Purchaser.

6.3.9. The Contractor shall use tools for requirements coverage, defect management and test management those are selected and hosted by the Purchaser. For any internal work, the Contractor may use their own internal tools, but they must be able to share data and information with those selected and hosted by the Purchaser.

6.3.10. The Contractor shall support post go-live activities during the Service Operation and Operational Test and Evaluation period. This will allow for the evaluation of the capability's operational requirements such as performance and availability. It will also establish benchmarks for future enhancements, including any changes made to fulfil the requirements.

6.3.11. All results of all formal IVVA activities performed during a given day shall be recorded in the test management tool.

6.3.12. The Contractor shall provide these test results for any given day by the start of the next working day (0900 AM), or as agreed by the Purchaser following the completion of IVVA activities.

6.3.13. The Contractor shall only proceed to the next formal IVVA activity, after the successful completion of the previous IVVA activity and/or agreement/approval by the Purchaser.

6.3.14. The Contractor shall provide all items required and identified in this SOW. The Purchaser has the right to cancel the TRR and/or IVVA event if the evidence demonstrates that execution of the IVVA event will not be effective or that the Contractor is not prepared.

6.3.15. The Contractor shall use the Purchasers' categorization nomenclature for all defects and non-compliances.

6.3.16. The Contractor shall describe in the TAP what training (if any) will be provided prior to formal IVVA events.

6.3.17. The start and/or ending of any IVVA activity shall be subject to the Purchaser approval. In the event that critical issues or more than ten (10) major issues are encountered which impact the IVVA event, the Purchaser has the right to stop the testing for Contractor's investigation. The tests can only re-start if the Purchaser agrees to continue testing from the point of failure or re-start testing from the beginning. If testing cannot continue, part of all of a test event shall be re-run.

6.3.18. For each IVVA event, the Contractor shall provide log/record of the event, including but not limited to individual test results, test execution durations, deviations during execution and sign-off for each result by both the Contractor and Purchaser.

6.3.19. 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 IVVA activities.

6.3.20. The Contractor shall produce and maintain the Requirement Traceability Matrix (RTM) which includes all functional and non-functional requirements, including security requirements, throughout the Contract execution to demonstrate and confirm that the verification and validation methods have successfully verified the requirements and that those requirements are tracked. The Purchaser will review and approve the proposed RTM. The RTM must be provided in a format that can be imported into the Purchaser's test management tools.

6.3.21. The Contractor shall produce and maintain the Verification Cross Reference Matrix (VCRM) which defines how the requirement will be verified at each of the IVVA activities. As a minimum, it shall consist of the following items and may be merged with the RTM into one configuration item upon agreement with the Purchaser:

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

- Coverage Status

6.3.22. The Contractor shall provide the Purchaser with updates (via the automated tools) to the RTM and VCRM daily during the execution of each IVVA event, and following the conclusion of each event defined in Table 6-1. A workflow for updating the RTM and VCRM shall be proposed by the Contractor and approved by the Purchaser.

6.3.23. The Contractor shall provide the Purchaser with a System Test Documentation Package, following documentation templates provided by the Purchaser, that is comprised of the documents listed in the table below.

Document/Product Name	Sent to Review/Approve
The Test and Acceptance Plan (TAP)	*4 weeks after contract award*
Test plans for individual test events including test design specifications	*2 months before IVVA event*
The Security Test & Verification Plan (STVP)	*2 months before IVVA event*
Any submitted test Waivers together with supporting material	*4 weeks before IVVA event*
The Test Cases/Scripts/Steps	*4 weeks before IVV event*
Status Reports	*Periodically (to be agreed in TAP)*
The Test Reports	*1 week after IVVA event*
System under-test Documentation	*1 week before IVVA event*
The Requirements Traceability Matrix (RTM) updated with test-related information	*First with TAP and update per test event*
Verification Cross Reference Matrix (VCRM)	*First with TAP and update per test event*

Table 13 Test Documentation

6.3.24. The Contractor shall produce a section in the Test and Acceptance Plan (TAP) to address the plans for each IVVA activity listed in this document

6.3.25. The Contractor shall describe all formal IVVA activities in the TAP with a testing methodology and strategy that fit the development methodology chosen by the project.

6.3.26. The Contractor shall describe their test organization and its relationship with the Contractor's Project Management Office and Quality Assurance (QA) functions in the TAP.

6.3.27. The Contractor shall identify the "Entry", "Suspension", "Resumption" and "Exit" criteria for each of the formal IVVA activities.

6.3.28. The Contractor shall provide the overall TVV&A schedule (including all IVVA events) in the TAP.

6.3.29. The Contractor shall support the Purchaser in the production of the STVP, to ensure that the Security testing, including verification of compliance with NATO CIS security regulations is applied. This is an integral part of the IVVA process.

6.3.30. The Contractor shall produce and execute test cases and scripts that cover all requirements specified in the STVP.

6.3.31. The Contractor shall obtain the approval of the Purchaser regarding the environments the formal IVVA events will take place on and in requesting the approval, indicate what support is required from the Purchaser to configure and prepare the environment. This includes any required data from the Purchaser required for the test event.

6.3.32. 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.

6.3.33. The Contractor shall record and log all waiver requests along with their disposition submitted for the Purchaser's approval.

6.4   Test Defect Categorization

6.4.1. Should a failure occur during testing, a failure report shall be raised by the Contractor and a preliminary investigation shall be immediately carried out in order to classify the failure according to its severity and its priority following the definitions below.

Category	Definition
Severity	The severity of a failure is the degree of impact that the failure has on the development or operation of a component or system or user function.
	The severity of the failure 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
	Severity will be classified as: Critical, Major, Minor or Cosmetic
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.
	Priority will be classified as: Urgent, Medium or Low.

Table 14: Definitions for Defect Categorization

6.4.2. In the event of failed IVVA event and the need to return to a site for re-testing; travel and per diem expenses of NATO personnel shall be borne by the Contractor.

SECTION 7. QUALITY ASSURANCE (QA) AND QUALITY CONTROL (QC)

7.1. Introduction

7.1.1. This section describes the general site implementation activities to be performed by the Contractor to deliver the solution at each site. Specific implementation activities and guidance for technical equipment and services are described in Annex A: Systems Requirement Specification (SRS).

7.1.2. The Contractor shall include a Quality Assurance Plan as part of the Project Management Plan (PMP) describing how the Contractor proposes to meet the Quality Assurance and control requirements as described in this Section.

7.1.3. The Contractor shall be ISO 9001 or AQAP 2110 certified and shall fulfil the general requirement of STANAG 4107 Ed. 9 and, in particular:

- AQAP 2210 Ed. A Ver 2;
- AQAP 2130 Ed. 3;
- AQAP 2110 Ed. D, as applicable for the application of ISO 10012:2004;
- AQAP 2131 Ed. 2.

7.2. Quality Control System

7.2.1. The Purchaser may delegate the Quality Assurance to the appropriate Government Quality Assurance Authority (GQAA) in accordance with STANAG 4107.

7.2.2. The GQAA, when accepting the STANAG 4107 Request for GQAA Services, appoints his QA Representative(s) (QAR).

7.2.3. The Purchaser, through their own Quality Assurance, however, will retain the overall supervisory and liaison authority concerning all QA/QC matters, and for this purpose will use their own QA Personnel.

7.2.4. The term "National QAR" (NQAR) shall apply to any of the Purchaser-appointed QARs, whether nominated by the GQAA or by Purchaser QA.

7.2.5. During the entire Contract implementation, the NQAR(s) within their own rights, defined in the Contract applicable AQAPs, shall assure the Contractors and Sub-Contractor's compliance with all contractual requirements. The Contractor shall establish, document and maintain an effective QC System in accordance with the applicable documentation throughout the lifecycle of the Contract.

7.3. Quality Assurance (QA) Programme

7.3.1. The Contractor shall designate a Quality Assurance (QA) Manager that is independent from the Contractor project team within its organization.

7.3.2. The programme is subject to review and/or rejection by the Purchaser, or its delegated representative(s), whenever it does not meet the QA requirements. It will be subject to review for adequacy, compliance and effectiveness.

7.3.3. The QA programme shall apply to all hardware, software and documentation being developed, designed, acquired, integrated, maintained, or used under the Contract. This includes non-deliverable test and support hardware and software. Firmware shall be controlled in the same manner as.

7.3.4. The QA Programme shall ensure that procedures are developed, implemented and maintained to adequately control the development, design, production, testing and configuration of all deliverables.

7.3.5. The Contractor shall be responsible for the control of quality of all deliverables and associated contractual products throughout the life-cycle of the Contract.

7.3.6. The Contractor shall designate at least one person to perform the QA function for this project. Contractor personnel within the QA organization shall have sufficient responsibility, authority, organizational freedom and independence to review and evaluate activities, identify problems and initiate or recommend appropriate corrective action. The Contractor QA person shall be the main QA point of contract to the Purchaser's on quality assurance matters.

7.3.7. Personnel performing QA functions shall not be the same personnel responsible for performing other tasks that are reviewed by QA.

7.3.8. Contractor QA personnel shall participate in the early planning and development stages to ensure that attributes of good quality for life-cycle procurement are specified in programme plans, standards, specifications and documentation. After establishment of attributes, controls and procedures, Contractor QA personnel shall ensure that all elements of the QA Programme are properly executed, including inspections, tests, analysis, reviews and audits.

7.4. Quality Assurance Plan (QAP)

7.4.1. The Contractor shall provide a QAP to the Purchaser in accordance with the requirements of the above mentioned AQAPs. The initial version of the QAP shall be delivered not later than 4 weeks after the signing of the contract and the QAP shall be structured as a living document subject to revision / update, as and when required.

7.4.2. The QAP shall reference, and/or document, and explain the Contractor's QA procedures for analysis, software support, development, design, production, installation, configuration management, control of Purchaser furnished property, documentation, records, programming standards and coding conventions, library controls, reviews and audits, testing, corrective action and certification as specifically related to this project.

7.4.3. The QAP shall be compatible and consistent with all other plans, specifications, standards, documents and schedules that are used under this Contract. All Contractor procedures referenced in the QAP shall either be submitted with the plan, or described in the plan and made available for review by the Purchaser upon demand.

7.4.4. The Contractor's corrective action system shall ensure prompt detection, documentation and correction of problems and deficiencies. The corrective action system shall track all reported and recorded problems and deficiencies until their closure and clearance.

7.4.5. The Purchaser reserves the right to perform reviews and audits at any of the Contractor or Sub-Contractor(s) facilities. Such reviews and audits shall not be

used by the Contractor as evidence of effective control of Sub-Contractor's quality. The Contractor shall conduct periodic audits of the Sub-Contractors.

7.4.6. When satisfied that the products and/or services provided by the Contractor are in conformance with the terms of this Contract, a CoC shall be counter-signed by the Purchaser. The preparation of the CoC(s) shall be the responsibility of the Contractor.

7.4.7. CoC(s) shall be required for all quantities contained in each Contract line item. The Contractor shall submit copies of the CoC(s) to the Purchaser in quantities specified in SSS on delivery of the equipment.

SECTION 8. CONFIGURATION MANAGEMENT

8.1. Introduction

8.1.1. The configuration of a product is the activity of structuring and interconnection of the hardware and software of a system for its intended application.

8.1.2. The Configuration Management (CM) is a process of identifying and documenting the characteristics of a facility's structures, systems and components (including computer systems and software), and of ensuring that changes to these characteristics are properly developed, assessed, approved, issued, implemented, verified, recorded and incorporated into the facility documentation.

8.1.3. CM applies procedures and tools to establish and maintain consistency between products and product requirements. CM establishes a structure for products and product configuration information and selects, defines, documents and baselines product attributes in sufficient detail to support the product lifecycle.

8.2. Configuration Management Plan (CMP)

8.2.1. The Contractor shall provide and maintain a CMP tailored to the requirements of the proposed technical solution. The initial version of the CMP shall be delivered not later than 4 weeks after the signing of the contract and shall address as a minimum the following subjects:

- Organization, roles, responsibilities, milestones;
- System Requirements Review
- Configuration Identification and Documentation;
- Baselines;
- Configuration Control and Change Process;
- Configuration Status Accounting;
- Configuration Audits (FCA, PCA)
- Configuration Management Database (CMDB);

8.3. Configuration Management Program

8.3.1. The Contractor shall be responsible to establish and maintain an effective Configuration Management (CM) organization to implement the CM programme and manage the CM functions (configuration identification and documentation, configuration control, configuration status accounting, configuration audits).

8.3.2. 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.

8.3.3. The Contractor shall be responsible for all Configuration Management activities before FSA.

8.3.4. The Contractor shall incorporate CM activities and deliverables into the PMS or set up and manage a separate sub-CM schedule.

8.3.5. The Contractor shall implement the CM activities for any HW, SW, FW, customization and document provided, used or defined in the frame of the project

and shall integrate the COTS elements-data in order to implement a unique CM framework.

8.3.6. The Contractor shall define the CI trees (Baselines), hierarchically structured, clearly defining each node/leaf as CI, HWCI, CSCI, HWP (Hardware Parts) or CSC (Computer SW Component) in accordance with the guidelines provided in the above defined ACMPs and ISO.

8.3.7. The Contractor shall define and deliver, as a minimum the following Baselines:

- Allocated Baseline (@ Design Review): it starts to be developed at the beginning of the design phase; it is established and "frozen" at the end of the design phase (also known as "as-designed" baseline);
- Product Baseline (@ Installation/Integration/Test): It starts to be developed at the beginning of the production phase. It is established and "frozen" at the end of the production phase.

8.3.8. The Functional Baseline shall not be delivered but shall be defined and maintained by the Contractor.

8.3.9. All the baselines shall be developed, maintained and fully documented in the Contractor's PLM (Product Lifecycle Management) tool.

8.3.10. 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.

8.3.11. The Contractor shall define the structure and templates of the different baselines in order to provide views, from the FBL to the PBL, with incremental content.

8.3.12. 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 MSI, coherent with the LBS
- 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 Licence 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/customised 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)

8.4. Functional and Physical Configuration Audits (FCA and PCA)

8.4.1. Configuration audits shall be established by the Contractor to verify compliance with the related specifications and other Contract requirements.

8.4.2. The audits shall be carried out jointly by the Contractor and the Purchaser in accordance with the Contractor's approved CMP and shall consist of a Functional Configuration Audit (FCA) and Physical Configuration Audit (PCA).

8.4.3. Functional Configuration Audit (FCA) is the formal examination of functional characteristics of a configuration item, or system to verify that the item has achieved the requirements specified in its functional and/or allocated configuration documentation.

8.4.4. In this Contract, the FCA shall primarily consist of reviews of all the component-based requirements of the Contract, Contract documentation, tests or test results where necessary, to demonstrate the full compliance of the functional requirements of allocated components delivered to the Purchaser.

8.4.5. Physical Configuration Audit (PCA) is the formal examination of the 'as-built' configuration of a configuration item and system against the technical documentation to verify the product baseline.

8.4.6. In this Contract the PCA shall consist of a review and verification of design documentation against the delivered system and individual system components at each implementation site.

8.4.7. The PCA shall further include:
- A full inventory check of all equipment ,software and documentation delivered on site, including auditing of equipment and cable labelling and marking, safety marking and warnings, part numbers and serial numbers;
- Verification of manuals and training material to assess consistency between documentation and equipment and software found on site;
- Verification of design configuration specification against equipment and software found on site;
- Verification of all change requests against equipment and software found on site.
- The PCA shall also include a review of system-wise functional and performance requirements that were not reviewed at FCA.

8.4.8. The Contractor shall draft and deliver a PCA Report after each PCA, summarizing the results of the audit and for the Purchaser's approval not later than two weeks after the PCA

8.4.9. The FCA and the PCA shall be conducted at a relevant time during project execution before PSA and shall be agreed between the Contractor and the Purchaser.

8.4.10. Documentation required for the Audit shall be provided by the Contractor two weeks before the event.

SECTION 9. SECURITY ACCREDITATION

9.1. Introduction

9.1.1. The Balkans IT Technical Refresh must achieve security accreditation for it to be granted the authority to operate. To achieve this, the Balkans NU, NS, and MS networks and interconnections will need to go through a security accreditation process and obtain one or more security accreditation statements from the Security Accreditation Authority (SAA). The Balkans IT Technical Refresh will need to demonstrate compliance with the relevant NATO Security Policy, supporting directives, and system-specific documentation (e.g., System Security Requirement Statements (SSRS)).

9.1.2. The responsibility for providing security accreditation lies with the SAA. This means the SAA is responsible for establishing the conditions to enable the Balkans IT Technical Refresh to process classified information, and authorise it to do so.

9.1.3. The responsibility for achieving security accreditation for the Balkans IT Refresh lies with the Purchaser. The Purchaser will coordinate with the SAA in order to execute the security accreditation process and achieve security accreditation.

9.1.4. The Contractor shall support the Purchaser in performing security accreditation activities on a Level of Effort (LoE) basis. The Contractor's responsibilities for testing, test reporting, and tracing of security-related requirements are outside the scope of this LoE support, and are described in SECTION 6 Test, Verification, Validation and Acceptance.

9.1.5. The overall security accreditation process will comprise multiple stages, including Approval for Testing (AfT) and interim Security Accreditation (iSA) for each PSA milestone, followed by full Security Accreditation (SA) for FSA. The Contractor shall support the Purchaser through all stages.

9.1.6. The Contractor shall support the Purchaser in the production of security accreditation documents that clearly delineate each location requiring Provisional System Acceptance as well as each network and interconnection, addressing the specifics of each location, network, and interconnection. Security accreditation documents will be based on templates provided by the Purchaser.

9.1.7. The Purchaser is responsible for delivering the policy and guidance documents for security accreditation, clear templates, and draft documents to the Contractor.

9.1.8. For each acceptance milestone (PSA and FSA), the Contractor shall support the Purchaser in order to complete security accreditation documents no later than 2 months before the acceptance milestone (except security-related test cases, scripts, and reports, the schedule for which is described in Table 10). A Security Accreditation Package will be produced by the Purchaser for the SAA, based on the security accreditation documents produced by the Purchaser and Contractor.

9.1.9. The Contractor shall attend security accreditation meetings as requested by the Purchaser, and shall provide briefings if needed.

9.1.10. The Contractor shall designate a Security Manager as a point of contact for security accreditation and security-related issues.

9.1.11. The Purchaser will need to request AfT before the Contractor initiates any onsite testing activity. The Contractor shall support the Purchaser in this request. The AfT will have to be agreed by the Purchaser with the SAA, in order to define to what extent the solution may be tested during a period of time until iSA and SA can be requested and granted.

9.1.12. The Purchaser may need to request Approval for Pilot (AfP) before iSA and SA can be requested to the SAA. The Contractor shall support the Purchaser in this request. The AfP will have to be agreed by the Purchaser with the SAA, in order to define to what extent the solution may be operated during a period of time until iSA and SA can be requested and granted.

9.2. Security Accreditation Documentation

9.2.1. The achievement of the Balkans IT Technical Refresh security accreditation will require a prescribed set of security documentation to be produced, using security accreditation documentation templates. The templates will be made available to the Contractor after Contract Award (CAW).

9.2.2. The Contractor shall support the Purchaser in producing, updating, and maintaining security accreditation documentation, and provide inputs to documents in support of the Balkans IT Technical Refresh security accreditation.

9.2.3. The Contractor shall identify and document any COTS products included in the system in the security documentation.

9.2.4. The Contractor shall have the right skillset to help the Purchaser produce the following documentation for the Balkans IT Technical Refresh security accreditation process. An initial version of each document will be developed by the Purchaser, as directed by the SAA, and made available to the Contractor.

- CIS Description,
- Security Risk Assessment (SRA),
- System-specific Security Requirement Statement (SSRS),
- System Interconnection Security Requirement Statement (SISRS),
- Security Test & Verification Plan (STVP),
- Security Operating Procedures (SecOPs).

9.2.5. The CIS Description shall be a standalone document and shall not refer to any document from the System Design Documentation Package. The CIS Description may contain relevant information taken from the System Design Documentation Package.

9.3. Security Accreditation Document Review

9.3.1.   The Contractor shall expect multiple review rounds per document before approval by the Purchaser for submission to the SAA, and subsequent approval by the SAA.

9.3.2.   The Contractor shall update and maintain security accreditation documents under the close supervision and guidance of Purchaser's specialists.

9.3.3.   The Contractor shall submit security accreditation documents to the Purchaser for review and update before submission to SAA for approval.

9.3.4.   The Contractor shall take into account any comments from the Purchaser reviewers and SAA, and shall update security accreditation documents in order to support the Purchaser in gaining SAA approval.

9.4. Security Mechanisms to be implemented by the Balkans IT Technical Refresh

9.4.1.   The Contractor shall design the security mechanisms for the Balkans IT Technical Refresh to be complementary to and to not overlap with the NATO wide IA Services capability already provided by other NATO systems.

9.4.2.   The Contractor shall design the Balkans IT Technical Refresh security mechanisms to integrate with the existing NATO wide IA Services capability.

9.4.3.   The Contractor shall include SRA recommendations for security mechanisms when producing the SDS. The security mechanisms included by the Purchaser in the high-level System Design will be based on the outcome of the SRA.

IFB-CO-15049-BITI

TECHNICAL REFRESH OF BALKANS IT INFRASTRUCTURE (BITI)

SOW - ANNEX A

System Requirements Specification (SRS)

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

Part IV, Statement of Work, Annex A

System Requirement Specification

Technical Refresh of Balkans IT Infrastructure

IFB-CO-15049-BITI

03 June 2020

TABLE OF CONTENTS

INDEX OF FIGURES

Section 1. Balkan theatres Capability Requirements

1.1 Background

[1] This document addresses the architectural design, implementation guidance and technical specifications for the equipment, services and systems to be provided in the scope of the project SOW.

1.2 Requirements Overview

[2] Request replacement of obsolete CIS equipment at both Balkan theatres.

   (1) NU routers and switches

   (2) NS routers and switches

   (3) MS routers and switches

   (4) NU back end infrastructure

   (5) NS back end infrastructure

   (6) MS back end infrastructure

   (7) NS MFP [Multi-Function Printer] printers;

   (8) NU MFP printers

   (9) MS MFP Printers

   (10) Data center passive infrastructure

   (11) NU cyber security component

   (12) MS cyber security component

   (13) NS cyber security component

   (14) NU Voice Over IP (VoIP) phones (partial, Bosnia only)

   (15) NU Analog phones (partial, Bosnia only)

   (16) NS VTC IP based terminals.

[3] Request for partial upgrade of NHQ Sa/ EUFOR Unclassified voice services from analog to VoIP based solution

1.3   Contract Deliverables

[4]   The Contractor shall undertake the provision, installation, integration and initial configuration, of the new CIS hardware at the indicated locations in both Balkan theatres.

[5]   The Contractor shall provide all materials and services required to install, connect, configure, test, commission and document the procured capability. The Contractor's efforts shall also include manpower, installation material and cables.

[6]   Vertical cabling between rooms inside and outside buildings are the responsibility of the Purchaser.

[7]   The Contractor shall deliver and install (the contractors responsibility to install them into the communication racks and connect them) the following networking elements in the indicated locations in Kosovo and Bosnia:

      (1)   NU routers and switches (LAN and Data Centre)

      (2)   NS routers and switches (LAN and Data Centre)

      (3)   MS routers and switches (LAN and Data Centre)

      (4)

[8]   The Contractor shall deliver and install the following Voice Infrastructure elements in Bosnia:

      (1)   NU and NS V2 Router functional elements to replace the obsolete hardware

      (2)   NU VoIP phones where the existing UTP Cat5E cabling is present

      (3)   NU analog phones where the UTP Cat5E cabling to user desks is not available

[9]   The Contractor shall provide and install the following Automated Information Services (AIS) components:

      (1)   Servers, Storage and VMware virtualisation and associated software solutions.

[10]   The Contractor shall deliver and install the following end-user Equipment:

      (1)   NS workstations w/ Monitor;

      (2)   Badge controlled Printer/Scanner;

      (3)   VTC equipment

      (4)   Projectors

[11]   The Contractor shall deliver and install the following security Equipment:

      (1)   NU firewalls and web proxy (Bosnia only)

      (2)   NS firewalls (Bosnia only)

      (3)   MS firewalls and mailguards (Kosovo and Bosnia)

      (4)   MS XML-Labelling Guards (Kosovo only)

[12]   The Contractor shall deliver and install cabling (single-mode fibre; multi-mode fibre and minimum CAT6 quality STP copper Ethernet) inside the racks, between the racks. The Contractor shall deliver and install the cabling and patching to interface the Contractor provided system to Purchaser furnished

cabling.

[13] The Contractor shall deliver and install communication racks equipped with power distribution and UPS in technical/server rooms.

[14] The Contractor shall mount the CIS equipment in 19" racks as follows:

     (1) Purchaser furnished 19" existing racks

     (2) Provided and installed 19" four-pole communication racks. These racks shall be equipped with UPS and power distribution.

[15] The Contractor shall meet the requirements for System Implementation (SI) in accordance to In particular, the Contractor shall deliver a consolidated system design as part of the Site Installation Data Package, based upon the Technical Specification in Section 3.

Section 2. High Level Architectural View

[16] The architectural view provides an overview of how the main technical services shall be implemented and includes the following views for the 3 network classifications (NU, NS, MS):

(1)   The transmission network layer

(2)   The overlay network layer

(3)   The IT services layer (servers, storage, security)

2.1   Transmission Architecture

[17] Both Balkan theatre HQs (Pristina and Sarajevo) are already equipped with the Customer Edge Device (referred to as a "CED" later in this document) - the Nokia 7705 Service Routers which had been delivered in the past as part of the LTX project. These constitute the entry points to NATO Protected Core Network to provide the MPLS-TE transmission services.

[18]
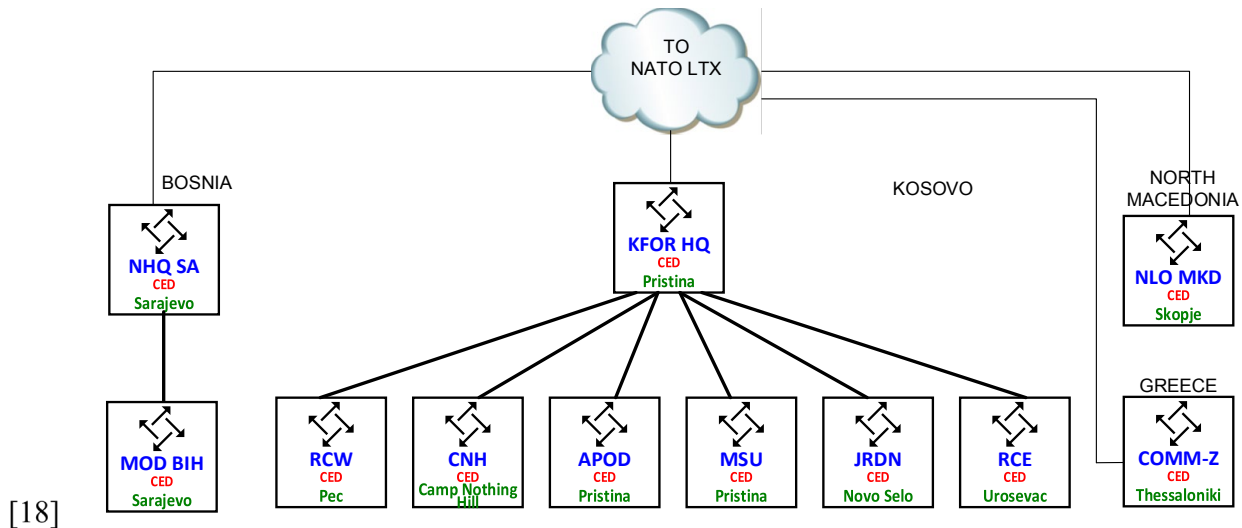
Figure 1. Transmission lines structure

[19] Replacement of the CED devices is not in the scope of the project and the information provided in Chapter 2.1 is for informational purposes only

2.2   Routing Architecture

[20] There are three distinct routed networks supporting both Balkan missions, operating at different security classification levels, namely NATO Unclassified, NATO Secret and Mission Secret

[21] The NU routed network delivers NATO Unclassified services as well as to transport encrypted traffic from the NS and MS domains. The NU network is also used to manage the military-grade TCE 621 crypto devices from the Secure Management Centre (SMC) in SHAPE.

[22] The NS routed network delivers NATO Secret services to the local and remote users within each Balkan mission as well as providing access to global NATO NS domains.

[23] The MS routed network delivers MISSION Secret services to the local and remote users within each Balkan mission

2.2.1 NU WAN

[24] The NU (NATO Unclassified) WAN topology follows the design of the underlying transmission networks and all connections are Ethernet-based.

[25] High level KFOR NU WAN topology is shown below.

KFOR and EUFOR/NHQSa NU WAN

[26]
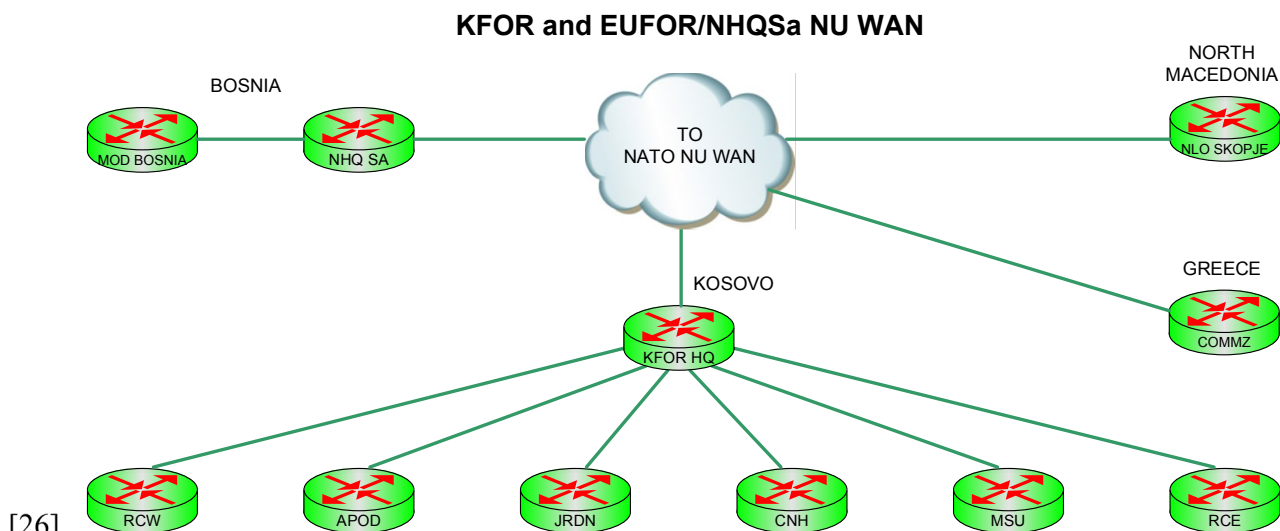
Figure 2: KFOR NU Router Topology

[27] NATO Liaison Office in Skopje, Republic of North Macedonia is connected directly to the NATO General Communications System (NGCS) NU WAN

[28] Military Liaison Office in Belgrade, Serbia is connected via a dedicated VPN service over the Internet and hence not shown on the drawing above

[29] The supporting unit COMM-Z in Thessaloniki, Greece is connected directly to the NATO General Communications System (NGCS) NU WAN

[30] In Bosnia, the only remote location outside the NHQ Sa is the Bosnian MOD in the Sarajevo district of Bistrik.

[31] The scope of the project assumes replacement of the current obsolete hardware and the configurations from the current devices shall be applied (with adaptions and optimizations where needed).

2.2.2 MS WAN

[32] The main business network for both Balkan theatres operates at the MS (Mission Secret) security classification level

[33] The MS networks are composed of a series of overlay GRE tunnels that span the HQ with the subordinate units

[34]   All MS tunnels are routed through the military-grade TCE 621 crypto devices, to establish the secure connections between different locations.

[35]   In Kosovo, All six remote locations have the MS footprint as follows
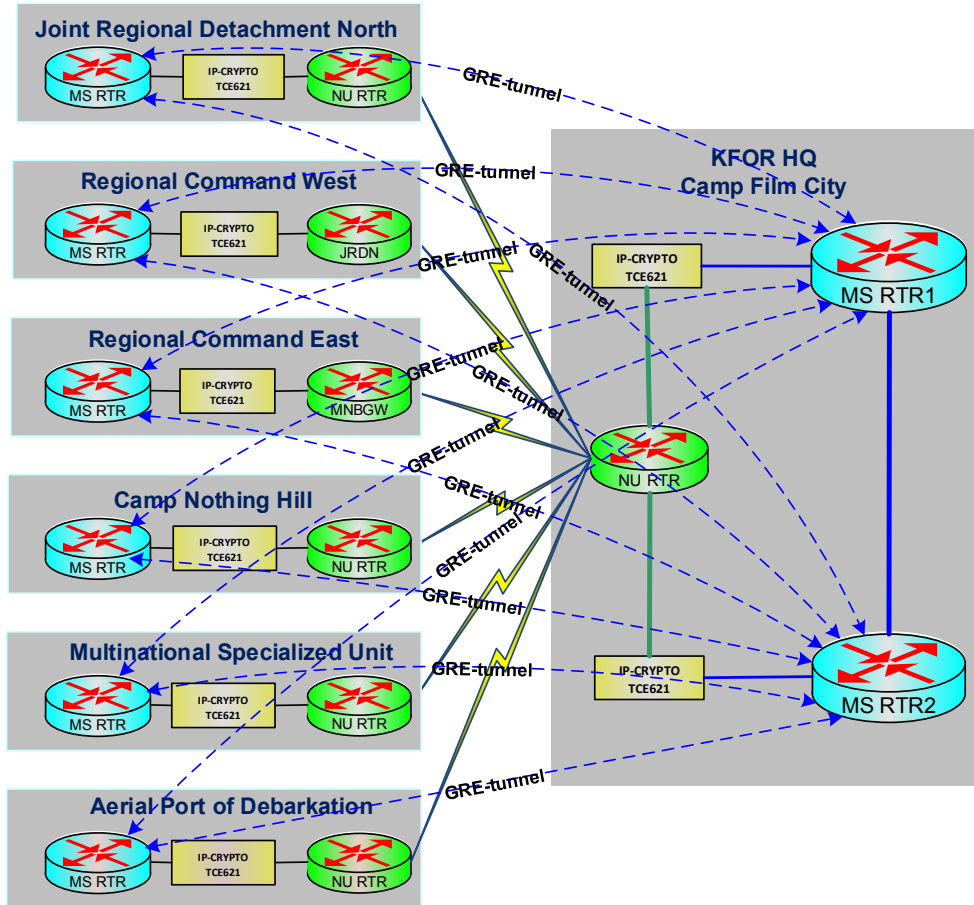
[36]

Figure 3: KFOR MS WAN Network

[37]   Due to high resiliency requirement of KFOR Mission, two MS routers should be provided at the HQ location

[38]   In Bosnia EUFOR/NHQ Sa the Mission Secret network extends from the HQ in Camp Butmir, Sarajevo, to two remote locations in SHAPE, Belgium (EUSG) and Lago Patria, Italy (EUCE)

[39]   The scope of the project assumes replacement of the current obsolete hardware and the configurations from the current devices shall be applied (with adaptions and optimizations where needed).

[40]   The new MS routers at the KFOR and EUFOR/NHQ Sa HQs shall include a dedicated 1Gbps Ethernet interface for the future interconnection to the planned NATO-Interconnection-Point (NIP) as part of the NATO Target Architecture Federation model.

2.2.3   NS WAN

[41]   The NS (NATO Secret) WAN network for both Balkan theatres operates at the NATO Secret security classification level and interacts with the global NATO Secret network

[42] The NS networks are composed of a series of overlay GRE tunnels that span the HQ with the subordinate units

[43] All NS tunnels are routed through the military-grade TCE 621 crypto devices, to establish the secure connections between different locations.

[44] In Kosovo, only four out of six remote locations in Kosovo have the NS footprint.
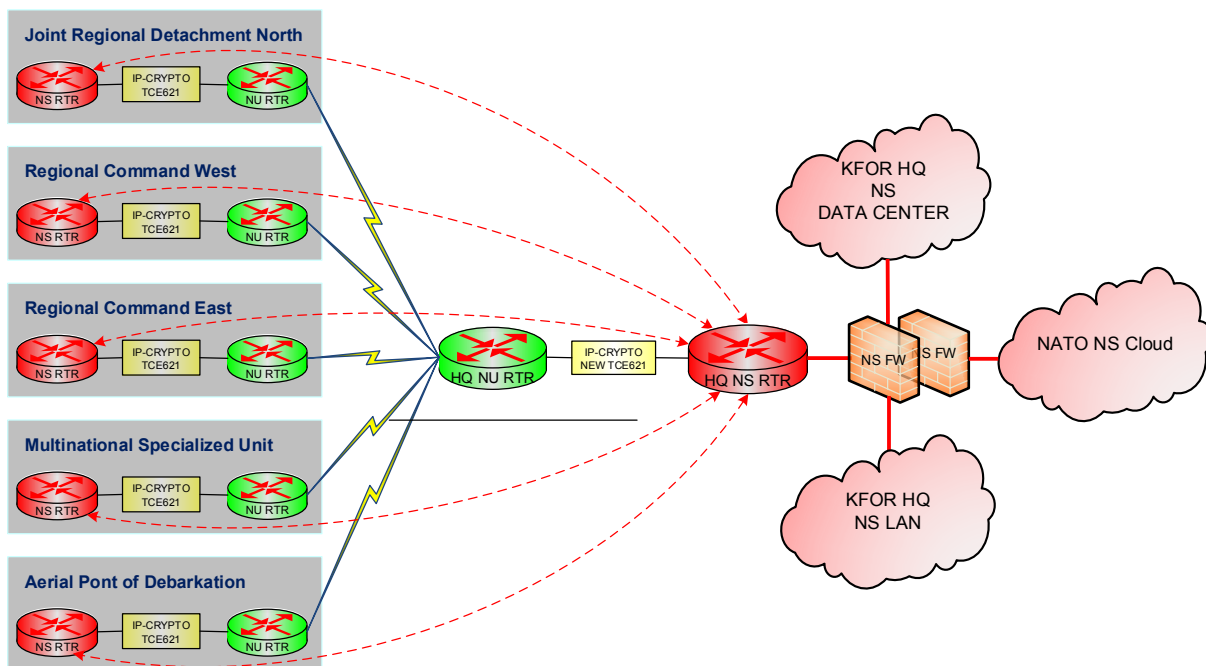
[45]

Figure 4: KFOR NS WAN network

[46] The project scope introduces a new NS router at the KFOR HQ (as shown above) which allows for elimination of the current sub-optimal design with the GRE tunnels from remote units connecting directly to the NGCS NS WAN routers (centrally managed, not a part of the KFOR mission administrative domain.

[47] The new NS router at the KFOR HQ shall include a dedicated 1Gbps Ethernet interface for the future interconnection to the planned NATO-to-Nations gateway (NNG) as part of the NATO Target Architecture Federation model.

2.3   Switching Architecture

[48] Both Balkans theatres have the campus-wide LAN networks at HQs and remote subordinate to facilitate user access to mission specific IT resources hosted on the local data center environments.

[49]   There are three distinct switched networks supporting both Balkan missions, operating at different security classification levels, namely NATO Unclassified, NATO Secret and Mission Secret

[50]   The NU LAN connections are implemented in form of both copper and fiber connections

[51]   The NS LAN and MS LAN connections are always implemented in form of multi-mode and single-mode fiber connections (tempest requirements), all NS and MS switches should offer high-density of SFP ports

[52]   The switches to be delivered are expected to be different hardware models depending of their roles in the network (core, access) and positioning within the campus and the size of the user community they provide the connectivity for

[53]   The Campus LAN design shall incorporate where possible the industry best practices with regards to High Availability (redundant links, power supplies, etc.), chassis virtualisation and efficient use of network paths to avoid unnecessary port blocking

[54]   All physical connections between different switches within the campus should be doubled for redundancy and aggregate thoughtput purposes
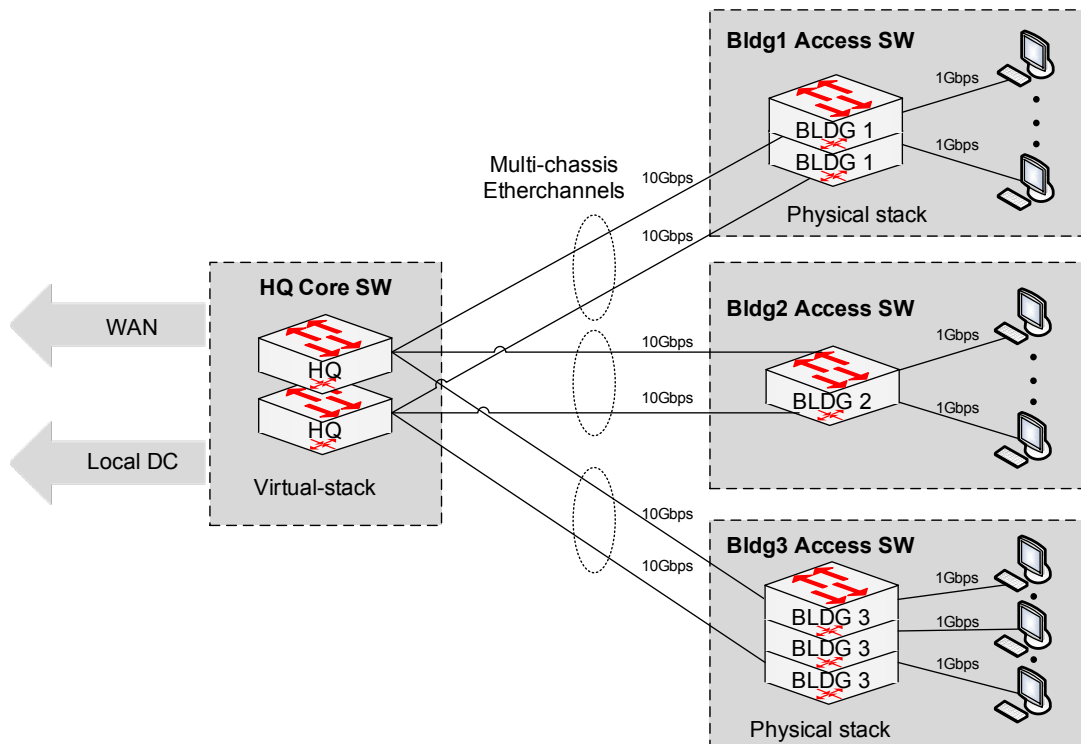
[55]

Figure 5 Generic view on required Campus LAN design

[56]   All NS and MS switches to be delivered in the project shall be Certified and provided with SDIP-27 Level B/C TEMPEST Certificate (As indicated in RFQ Bidding Sheet/SSS). Data Center Architecture

[57]   Local Data Centers at both Balkan HQs (Pristina and Sarajevo) shall provide capabilities required for hosting of mission-specific local services.

[58]   A resilient server room architecture shall ensure the resiliency of the IT services for each of the 3

networks at KFOR HQ and NHQ Sarajevo/EUFOR. The architecture will be scaled for each network classification and will ensure the resilience is adequate for the operational criticality and importance of the services performed on each network.

[59]   The Data Center connectivity is implemented in form of both copper and fiber connections.

[60]   The NU Data Center connections are planned to be all 10Gbps and where possible 25Gbps.

[61]   Each mission (KFOR and NHQ Sa/EUFOR) shall have primary and alternate Date Center facility separated physically by a distance of at least 100meters to ensure business continuity in case of a disruptive event.

[62]   Both Data Centers (primary and alternate) within each mission shall follow the industry best practices for high availability, high-throughput, low-latency and efficient use of network resources.

[63]   All physical connections within and between different Data Center switches shall offer full path redundancy and ensure none ports are in blocking state (unified fabric)

[64]   Hardware redundancy shall be put in place (dual switches, dual power supplies, redundant fans, redundant power supply, etc.)

[65]   Different server farm sizes (larger on MS, smaller on NU and NS) are foreseen, with redundant Data Centre switches within each Server Room for MS, and with a single Data Centre switch for each Server Room for NU and NS

[66]
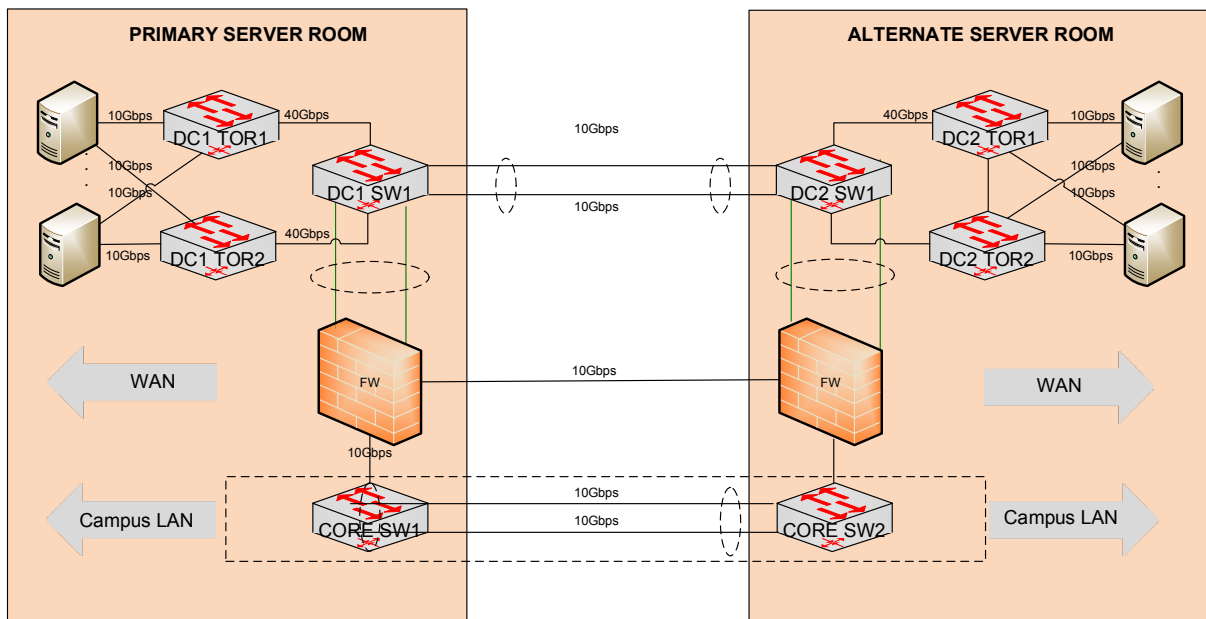
[67]

Figure 6 Data Centre connectivity for MS
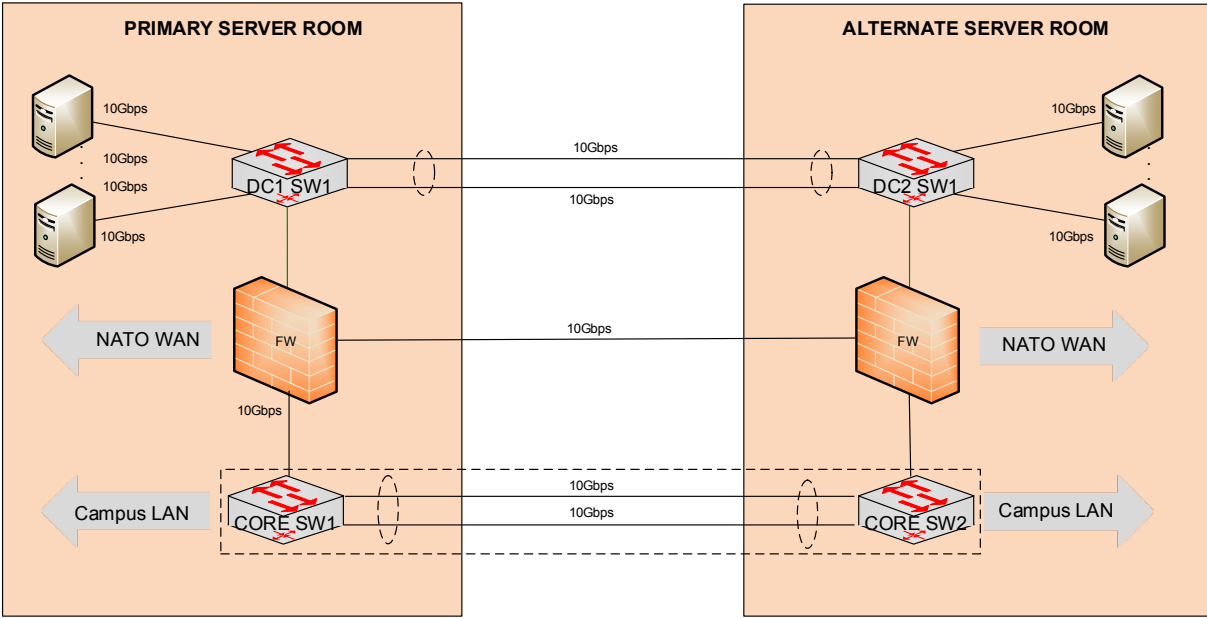
[68]

Figure 7 Data Centre connectivity for NU and NS

2.4   IaaS DC Architecture

[69]   The IaaS Datacentre Architecture shall provide a high-resiliency virtualised platform using VMware virtualisation technology to host Virtual Machines (VMs) and virtualised storage.
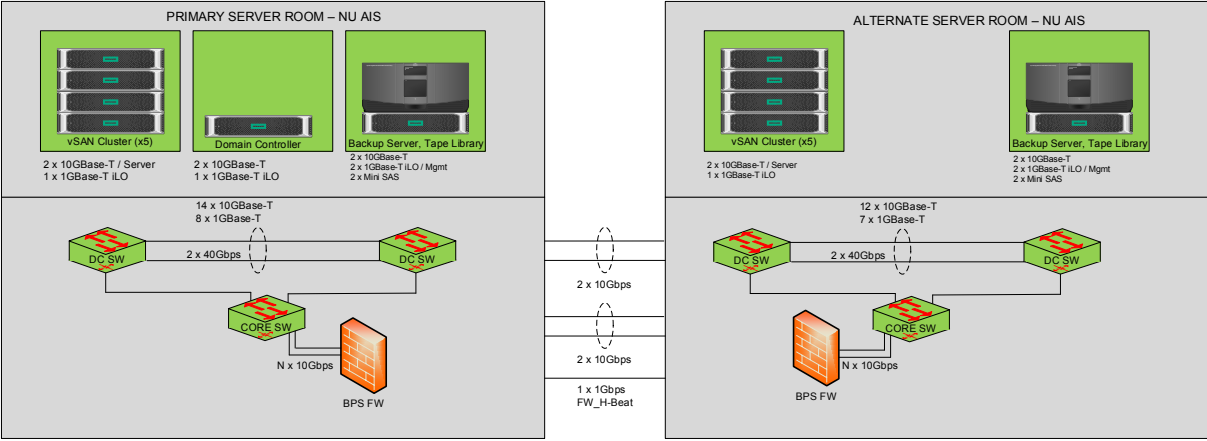
[70]

Figure 8: NU Server Room Topology

2.5   Security Zone and Gateway Architecture

[71]   Traffic flows between different functional domains shall be subject to zoning to ensure that the proper of security controls are in place.

[72]   The following security policies are enforced on the firewalls to create four distinct zones:

- global NATO cloud (NGCS)

- data centre where the local services are to be hosted

- Local users located in the mission HQ Campus

- Remote users located in subordinate units within the mission

[73] The security zones for NU network are depicted below:
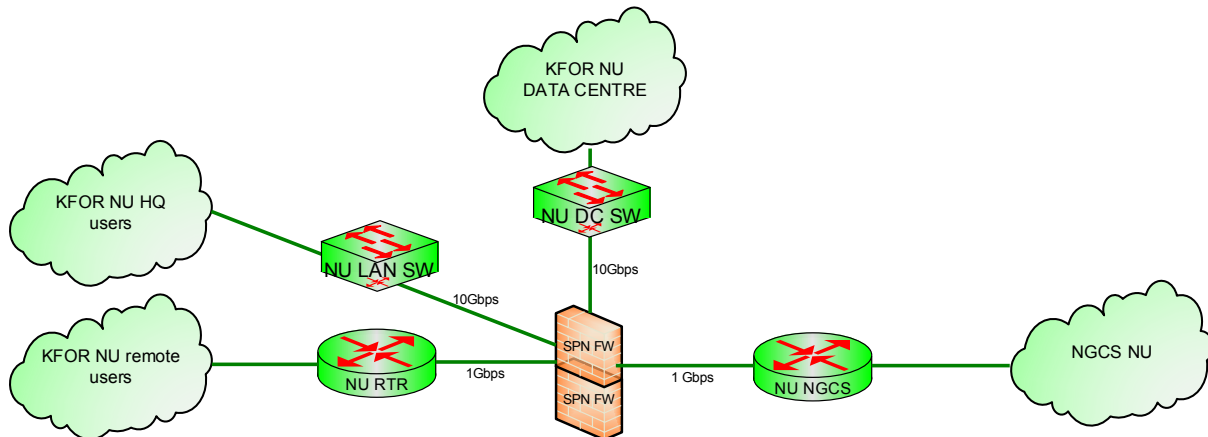
[74] Figure 9 Security zones - NU

[75] The WAN area zones shall be 1Gbps while the local LAN and the data center are to be connected with the 10Gbps paths.

[76] Two firewall cluster members shall be deployed in the primary and alternate servers rooms as per the overall CUR1896 redundancy requirement

[77] For the NS and MS networks the general principles for the security zoning are the same as for NU network but shall use a separate firewall cluster, referred to as IEG-C (Information Exchange Gateway type C) that implements the boundary protection between the static NS and the Mission Secret domains

[78] In addition to the firewall cluster, the IEG-C contains mail guards for scanning email traffic flowing across the NS-MS boundary. In KFOR, the IEG-C also contains XML-labelling guards (XLG) for enabling information exchange between communities-of-interest (COIs) in NATO Secret (high) and Mission Secret (low) network domains. The XLG, also known as a "Web Guard," is a cross-domain solution that allows automated data exchange between two network enclaves that belong to different security domains. A specification for the XLG is provided in section 3.8.3.

[79] All flows to the NS Data Centers shall be secured by the NS SPN (Self Protecting Node) firewalls, while all communications to MS Data Centers shall be secured by the IEG-C firewalls
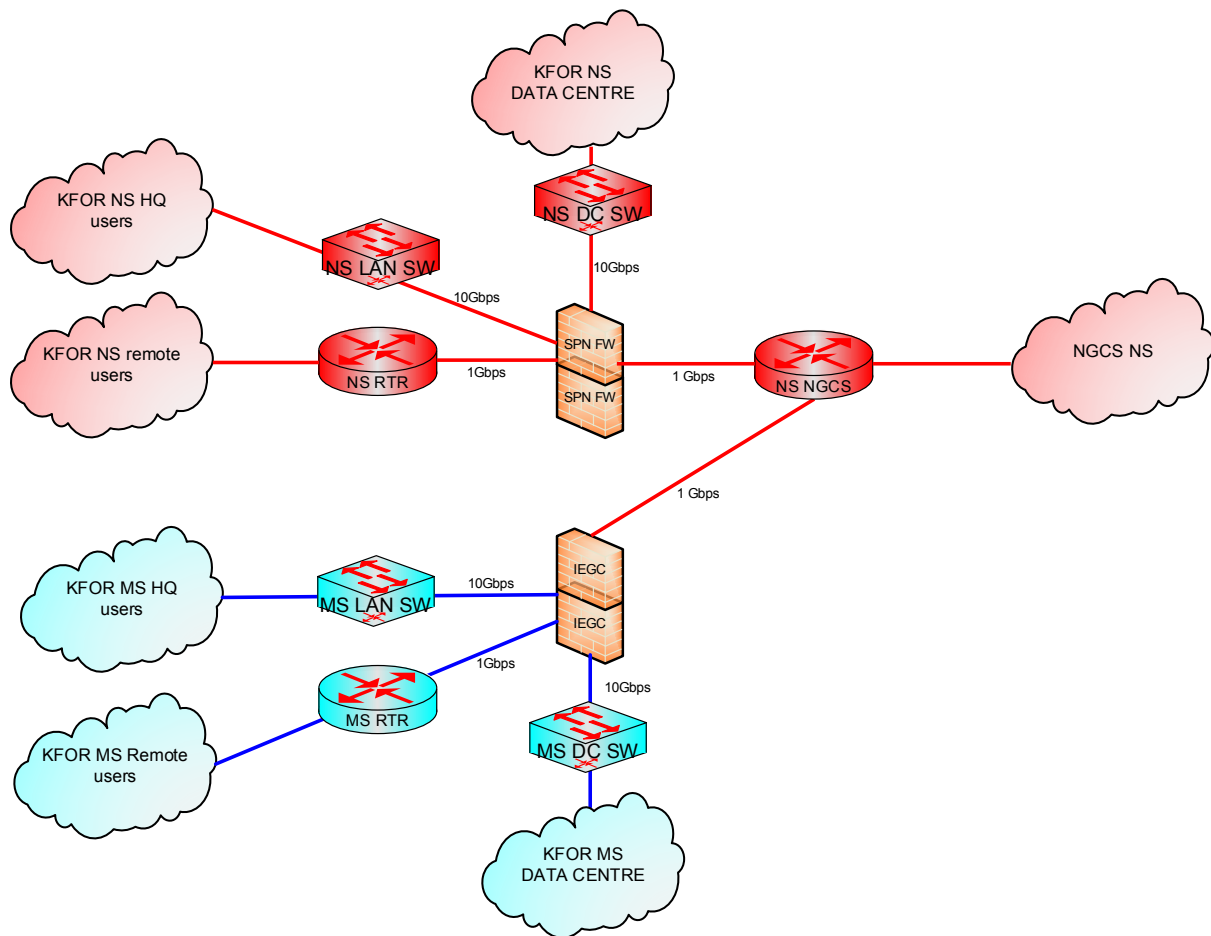
[80]   Figure 10 Security zoning - NS and MS

2.6   Voice & Video Network Architecture

2.6.1   NU Telephony Architecture – Bosnia only

[81]   The current telephony services in EUFOR/NHQ Sa Sarajevo (Camp Butmir) are based on the obsolete analog PABX distribution systems and in the scope of the project are foreseen for the partial upgrade to Voice-over-IP (VoIP).

[82]   The upgrade is dictated by the existing Camp Butmir infrastructural cabling limitations preventing the migration to a homogenous, fully digital telephony solution

[83]   For the areas of Camp Butmir where the uplift to a VoIP solution is not feasible, the analog voice gateway devices shall be introduced and all current analog phones will be replaced with the new Gigaset DA-710 devices

[84]   The scope of the project includes extension of NU VoIP services in MOD Bosnia (Bistrik)

[85]   Distribution of NU VoIP and analog components is depicted below and the Power-over-Ethernet switches providing connectivity for VoIP phones and the Analog Voice Gateway shall be integrated into common stack with the corresponding NU data switches.

[86]
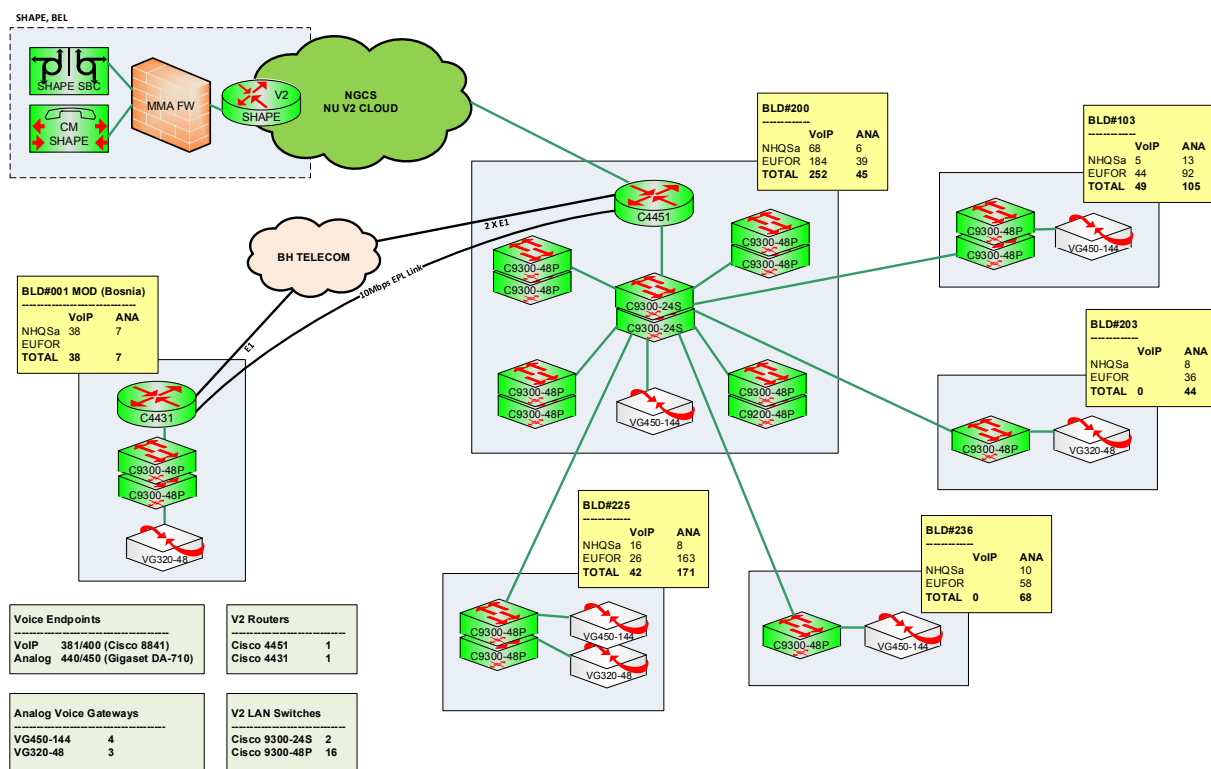
Figure 11: NU Telephony Architecture

2.6.2 NU VTC Architecture

[87] The project scope includes the NU VTC services that were not provided to EUFOR/NHQ Sa until now. Hardware supporting fulfilment of this requirement shall meet the current baseline, and be fully compatible with existing NU VTC Core infrastructure and therefore shall be based on Polycom Real Presence Group Series codecs.

[88] The capability shall be implemented at NHQSa (Camp Butmir) and the NHQ Sa remote site - NATO ADVISORY TEAM (NAT) building located within BIH Ministry of Defence (MOD) with 1 x NU VTC System at each location.
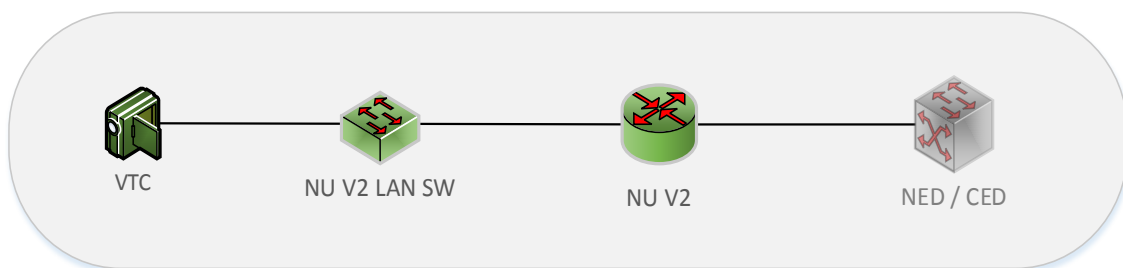
Figure 12 Generic view of NU VTC Topology

[89] The connectivity between the VTC appliances and the NU V2 routers is to utilize the dedicated NU V2 LAN infrastructure that is to be introduced as part of the NU VoIP telephony upgrade (chapter 2.6)

2.6.3 NS VTC Architecture

[90] The project scope includes the upgrade of the NS VTC services that are being provided to EUFOR/NHQ Sa. All obsolete hardware supporting the current NS VTC solution shall be replaced.

[91] The NATO Secret V2 services rely on the presence of a dedicated router which is independent from the NATO Secret data router.

[92] The NS VTC connectivity within the Camp Butmir campus is implemented over the shared NS LAN infrastructure (a designated VLAN hosting the NS VTC IP based end points transported over NS date switches)

[93] The NS V2 network (VoIP and VTCoIP) shares the NS V2 crypto - TCE 621/C, i.e. this crypto equipment shall support both NS VTC and NS VoSIP services. Eventually 5 NS VTC terminals are required to be replaced with devices meeting the current baseline and be fully compatible with existing NS VTC Core infrastructure – Polycom Real Presence Group Series codecs. All five VTC endpoints are currently operating with use of IP connectivity over IP crypto device.
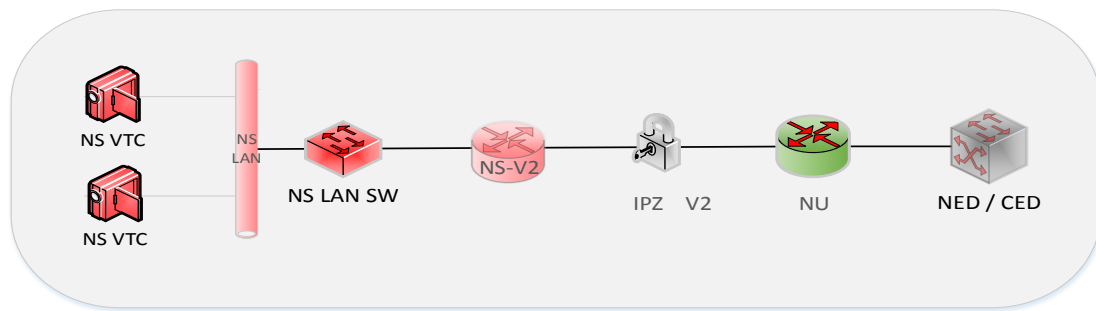
Figure 13 Generic view of NS VTC Topology

Section 3. Technical Services Specification

[94] The purpose of this section is to provide the Technical Services System Requirements including Preliminary System Designs and System Implementation guidance.

[95] The equipment provided under this contract shall meet or exceed the technical requirements identified herein for the respective Contract Line Item Number (CLIN) in the SSS.

[96] Where named brands or models are specified, NATO requires these specific named products to ensure commonality for logistics, maintenance, and troubleshooting purposes. As these are implemented throughout the NATO networks, this enables the Purchaser to minimize the training, spares, maintenance and logistics costs associated with the networks and provide the best support to the end-user.

3.1 Equipment Racks & Cabinets

[97] The Contractor shall provide equipment racks specified in the SRS.

[98] Racks shall be installed in technical rooms ensuring correct air-flow and cooling standards are implemented.

[99] Racks shall be installed to meet the configuration guidance provided at the Site Survey and documented in the SIDP.

[100] Equipment shall be installed in racks meeting the configuration guidance provided at the Site Survey and documented in the SIDP.

[101] Equipment shall be installed in racks to comply with SECAN Doctrine and Information Publication (SOW 2.17)

3.1.1 Rack Power Distribution

[102] All racks shall be installed with PDUs providing in-rack power distribution with IEC C14 sockets to connect equipment mounted in racks.

[103] All rack UPS and PDUs shall be connected to power distribution points in the equipment rooms identified at the Site Survey and documented in the SIDP.

[104] Rack UPS shall be sized for the currently installed equipment + 30% spare capacity and shall provide a minimum of 10 minutes backup power.

[105] Rack UPS shall be equipped with management card that shall feature Ethernet interface (not serial).

[106] Rack power distribution shall be separated in two (2) groups, as follows:

    (1)   Each connecting the main and redundant power supplies of installed equipment;

    (2)   Non redundant equipment shall be equally distributed over both power groups;

    (3)   Both power groups shall be physically separated and labelled accordingly;

    (4)   Cable bundles belonging to power groups shall follow a physically separate path within in the rack;

(5)   Both power groups shall be individually connected to the in-room power distribution points with dedicated power cables;

(6)   Racks and power distribution shall be connected to the building power supply distributing the load across available fuses; and

(7)   The two power groups within a rack shall be distributed over different fuses.

[107] Each of the two power distribution groups shall be equipped with as a minimum 12 sockets.

[108] The rack design and power distribution, including the cabling routing, shall support the placement of a rack-UPS. As a minimum 6U shall be reserved in the bottom of the rack.

[109] An earth connection will be made from the Main Protective Earth Bus-bar to each rack within the room.

3.2 Network Cabling

[110] Network cabling meeting specifications provided in the SRS shall be supplied and installed based upon the information collected and guidance provided at the Site Survey and documented in the SIDP.

[111] The Contractor shall propose any required augmentation in the PFE Cabling plant necessary to successfully implement the solution at a site location.

[112] The Contractor shall provide and install patch panels (copper) and patch trays (fibre) in the racks identified at Site Survey and documented in the SIDP. Fibre optic patch trays shall be [duplex-LC] and copper-based patch panels shall be [RJ45].

[113] The Contractor shall install network cabling that complies with the "Cabling Standards for NATO" for:

(1)   Inter-rack cabling/connections; and

(2)   Inter-room cabling/connections.

[114] Patch cables (cable lengths shall be identified during the Site Survey). shall be provided and installed for all rack-mounted equipment end-user equipment provided by this project and to connect PFE equipment including:

(1)   Workstations;

(2)   printers/scanners; and

(3)   VoIP phones.

(4)   VTC equipment.

3.2.1 Media Converters

[115] Media converters, to convert fibre to copper shall be installed for equipment that cannot natively support the required type of media.

3.3 Networking Equipment

[116] Network equipment that meets the specifications provided in the SRS shall be supplied and installed in CIS equipment rooms identified at the Site Survey and documented in the SIDP and includes the components:

     (1)   Routers

     (2)   LAN switches

     (3)   Data Center switches

     (4)   Analog voice gateways (Bosnia only)

[117] Network equipment (routers, switches etc) shall be installed and configured with a baseline that allows the equipment to be accessed over the network allowing Purchaser administrators to take-over the equipment and perform final configuration and testing.

[118] As a generic requirement all support contracts provided for CISCO equipment shall be based on SNTC 8X5XNBD. It has to be mentioned here that in the individual equipment description this has not specified – as this requirement is valid for all.

3.3.1 Routers

[119] Within the scope of the project all current obsolete routers need to be replaced and two new routers are to be introduced (NS data router at KFOR HQ and NU V2 router at MOD Bosnia)

[120] The routers shall implement WAN connectivity within the theatres boundaries and they shall be placed behind the firewalls separating them from the global NGCS WAN

[121] The Balkan theatres routing element shall be implemented with the hardware that is aligned with the target architecture adopted for NATO networks and is baselined to Cisco Integrated Services 4000 Series devices

[122] The ISR 4000 routers which are to be provided in the project are models ISR4451-X and ISR4431 and depending on the role in the network, shall be delivered with the proper licensing.

[123] The routers for the NU network shall be capable of performing IPSEC operations, hence they shall be delivered with the Security license

[124] The routers for Voice & Video (V2) services shall be delivered with the Unified Communications license

3.3.2   LAN Switches

[125] Within the scope of the project all current obsolete LAN switches need to be replaced with the up-to-date equivalent hardware platforms and the industry best practices for LAN designs should be incorporated

[126] The HQ Campus LAN networks are considered a separate security zone on the firewalls

[127] All existing connections between campus switches should be upgraded from 1Gbps to 10Gbps, and the user access links should be uplifted from 100Mbps to 1Gbps

[128] At the heart of HQ Campus LAN are the core switches, deployed in pairs to form one brain (virtual stack) but residing individually in primary and alternate server rooms

[129] All switches in the HQ Campuses (both Pristina and Sarajevo) need to be dual homed to core switches in primary and alternate server room

[130] The LAN switches present at both Balkan theatres shall be implemented using different platforms from the Cisco Catalyst 9000 portfolio, depending on the network function core or access

3.3.3   Data Center Switches

[131] The project shall create a distinction between the user domain and the service-hosting environments, hence the need for creation of the data center zone

[132] The Data Centre networks are considered a separate security zone on the firewalls

[133] Data Center solution shall implement network switches that are capable of forming of unified fabric (set of paths between endpoints which are all active – lack of spanning-tree blocking)

[134] The new Data Centre switches shall connect the servers hosting all the mission enabling IT services and per project main requirement, they need to be implemented in a way that provides high speed replication of data between the primary and the alternate server room environments

[135] The Data Center switches shall be standardized to Cisco Nexus 9000 platforms and Cisco Nexus 2300 Fabric Extenders

3.3.4   Migration

[136] The Contractor shall provide Engineering Support to migrate equipment, services, users, and data from the existing environment to the new environment.

(1)

3.4   End-user Equipment

[137] The Contractor shall install End-user equipment such as Laptops, printers, VTC unit and phones at the designated locations.

[138] The Contractor shall deliver and install ancillaries, which include monitors, printers, with the appropriate

mountings.

3.4.1 Introduction

[139] The end-user equipment that shall be provided by the project to replace equipment that is obsolescent includes:

> (1) Workstations & Laptops;
>
> (2) Printers, Plotters, Scanners and Digital senders;
>
> (3) Projectors;
>
> (4) VoIP and Analogue Phones.

[140] End-user equipment shall be positioned in a standard way at each location.

[141] The Contractor shall integrate all current and new client IT equipment provided as Purchaser-Furnished Equipment (see WP4), including the replacement of the network interface card of legacy client hardware.

3.4.2 Installation

3.4.2.1 Workstations & Laptops

[142] The Contractor shall configure and install the workstations and laptops with monitors / keyboard and mouse on the user desks, and connected to the network outlets.

[143] The Contractor shall install and configure the PFE software image according to Purchaser provided NATO Guidelines, which will be provided by the Purchaser after EDC.

[144] The Contractor shall ensure that all workstations and laptops are correctly configured, joined to the domain and can access network services, print and scan by logging on with a standard user account and performing a standard series of tests.

3.4.2.2 Printers/Plotters/Scanners

[145] The Contractor shall configure and install the required printer/scanner in accordance with the Technical Requirements.

[146] The printer/scanners shall be configured to meet NATO security standards for network printer/scanner, which will be provided by the Purchaser after EDC.

[147] The printer/scanners shall be configured to provide secure access via a card reader that will allow follow the user printing to any secure printer.

[148] The primary configuration for printer shall be network attached printers.

[149] The configuration for scanners shall be in network mode enabling Scans to be emailed to user Mailboxes.

3.4.2.3 Projectors

[150] The Contractor shall configure and install the projectors in accordance with the Technical Requirements, which will be provided by the Purchaser after EDC.

3.4.2.4 NU VoIP phones

[151] VoIP phones meeting the specification provided in the SRS shall be supplied and installed in the areas identified during the Site Survey and documented in the SIDP.

[152] NU phones shall be operated on a dedicated VLAN segregated from the data systems. Phones shall implement VLAN tagging in accordance with IEEE 802.1Q:2011.

[153] NU VoSIP phones shall implement Ethernet Class of Service signalling through IEEE 802.1p as included in IEEE 802.1D:2004.

[154] NU phones shall implement LLDP to configure the VLAN, IEEE 802.1p Ethernet CoS and DSCP markings to be used.

[155] NU phones shall implement authentication towards the End-user Access Switch in accordance with IEEE 802.1X:2010.

[156] NU phones shall be configured with static IP address and download the configuration from the designated server, details of which will be provided during the Configuration Guidance Stage of the project.

[157] The NU V2 Router implements the on-site component of the Purchaser's centralized secure voice services.

[158] The NU VoIP phones shall be connected to the Power-over-Ethernet enabled switches, integrated into common stack solution with the data switches

[159] VoIP & VoSIP phones shall be installed using the purchaser provided configuration.

3.4.2.5 NS/NU VTC

[160] This section addresses specification for VTC Systems that shall ensure full compatibility with the NATO Wide Studio Video Conferencing infrastructure on both Secure and Unclassified networks.

[161] The VTC Systems shall perform the following functions: Coding/Decoding of audio and video signals; Multiplexing of video, audio, data, and control signals; System control and end-to-end signalling.

[162] The VTC Systems shall be capable of providing High Definition (HD) video. HD Video means minimum resolution of 720p (upgradable to 1080p), with minimum refresh rate of 30 frames/second (upgradable to 60 fps) at a call speed of 768 Kbps.

[163] The VTC System shall be High Definition (HD) Audio. HD Audio means full duplex audio with high-Quality Stereo Surround. The minimum audio frequency spectrum covered must be 14kHz.

[164] The Video Codec shall be capable of providing content sharing with HD720p video resolution and a frame rate of 30fps at a call speed of 768 Kbps.

[165] The VTC Systems shall be able to connect to any laptop/PC/workstation and display its screen on the Multimedia conferencing display. Plug and Play connection of laptop/PC computers into delivered VTC Systems shall be provided in the following format: VGA, HDMI.

[166] The VTC Systems shall be operated on a dedicated VLAN segregated from the data systems and support: IPv4 and IPv6, 10/100/1G Ethernet, H.323 and/or SIP up to 6 Mbps and be QoS configurable.

[167] The VTC Systems shall be installed using the purchaser provided configuration.

[168] VTC System components shall meet requirements for TEMPEST Level C equipment.

[169] Pending LAN infrastructure, 1000BASE-SX / 1000BASE-T media converters, converting fibre to copper, compatible with the delivered VTC devices shall be included.

3.4.3   Migration

[170] The Contractor shall provide Engineering Support to migrate equipment, services, users, and data from the existing environment to the new environment.

3.5   IaaS Component

3.5.1   Introduction

[171] The IaaS services component shall be composed from physical and virtual servers and storage elements using server and network virtualisation to provide a shared hosting infrastructure for multiple virtual server machines (VMs).

3.5.2   Installation

[172] The IaaS services shall be installed to provide a Datacentre (DC) to Remote Office Branch Office (ROBO) architecture (see diagram below) at identified locations and network classifications. ROBO locations will have a minimal IT footprint with a local backup capability, services will also be accessed from the DC and critical data and backups shall be replicated to the DC from the ROBO location.
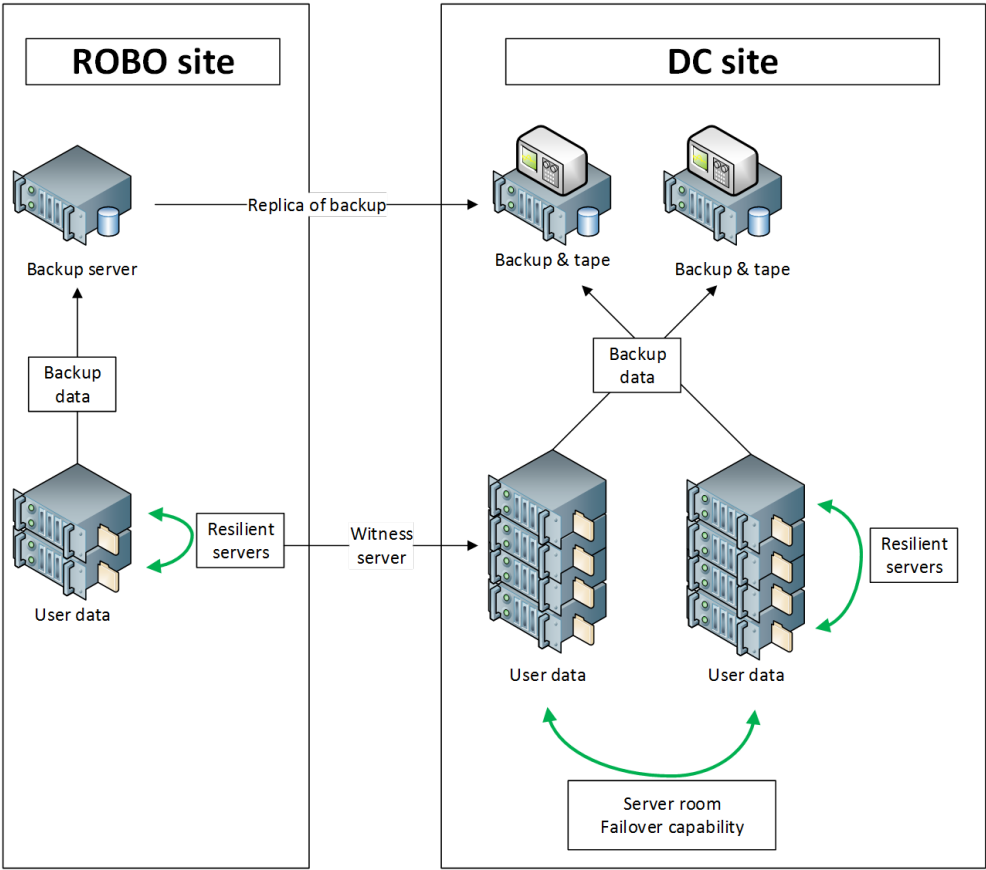
Figure 14: DC and ROBO site IaaS architecture

[174] The IaaS services shall be installed at the following locations and specified network classifications identified in the following table.

Table 1: IaaS Locations and Network Classifications.

Theatre	Location	Classification	IaaS Infrastructure
KFOR	HQ	NS, MS, NU	DC
KFOR	MNB, remotes	NS, MS, NU	None
KFOR	NLO Skopje	NU	ROBO
KFOR	MLO Belgrade	NU	ROBO
KFOR	COMMZ-S	NS, NU	ROBO (no HW required)
NHQ Sa / EUFOR	Butmir	NS, MS, NU	DC
NHQ Sa / EUFOR	Sarajevo MOD	NU	ROBO
NHQ Sa / EUFOR	EUSG Mons	MS	ROBO

Theatre	Location	Classification	IaaS Infrastructure
NHQ Sa / EUFOR	EUCE Naples	MS	ROBO

[175] The IaaS services shall be installed at the following locations and specified network classifications as identified in the following example tables.

Table 2: Example - IaaS Equipment on MS Network at HQ KFOR (DC)

Network Classification: MS			Location: HQ KFOR Datacentre (DC)	
Component Equipment Description	Qty	Rack U	LAN Connection	Facility
vSAN Cluster Host	5	2	2 x 10G-Base-T (Data) 1 x 1G-Base-T (Mgmt)	Primary Server Room
Domain Controller	1	2	2 x 1G-Base-T (Data) 1 x 1G-Base-T (Mgmt)	Primary Server Room
Backup Server	1	2	2 x 10G-Base-T (Data) 1 x 1G-Base-T (Mgmt)	Primary Server Room
Tape Library	1	4	2 x SAS (Data) 1 x 1G-Base-T (Mgmt)	Primary Server Room
vSAN Host	5	2	2 x 10G-Base-T (Data) 1 x 1G-Base-T (Mgmt)	Alternate Server Room
Backup Server	1	2	2 x 10G-Base-T (Data) 1 x 1G-Base-T (Mgmt)	Alternate Server Room
Tape Library	1	4	2 x SAS (Data) 1 x 1G-Base-T (Mgmt)	Alternate Server Room

[176]

Table 3: Example - IaaS Equipment for NU Network MLO Belgrade (ROBO)

Network Classification: NU			Location: MLO Belgrade (ROBO)	
Component Equipment Description	Qty	Rack U	LAN Connection	Facility
vSAN Cluster Host	2	2	2 x 10G-Base-T (Data) 1 x 1G-Base-T (Mgmt)	Server Room
Backup Server	1	2	2 x 10G-Base-T (Data) 1 x 1G-Base-T (Mgmt)	Server Room

[177] The IaaS hardware and software shall be installed in the primary and secondary server rooms of the DC locations and in the server room or technical facility at each ROBO location.

[178] The PFE VMWare software shall be installed on to the equipment provided in this contract to create a fully functioning and resilient VMWare vSAN Hyper Converged Infrastructure (HCI) that follows the VMware vSAN Datacenter Cluster and ROBO Deployment Reference Architecture.

Page 24

[179] Virtual Machine (VM) templates shall be created to install up to 10 (Ten) Windows Server VMs that meet specifications to be provided by NCIA for each location and each network classification.

[180] VMWare and Microsoft Windows Server best practices and reference documentation shall be used for the IaaS installation with the NATO Security Instructions for VMWare and Microsoft Windows environments.

[181] A backup and archiving solution shall be installed using the equipment provided in this contract to provide a two tier backup strategy that provides backup to disk for fast retrieval and backup to tape for long term storage and disaster recovery. To facilitate this two-tier strategy for each site, data will be replicated to the Datacentre sites from the ROBO sites where the data can be stored on tape for disaster recovery purposes and archiving.

[182] The IaaS VMware vSAN Datacenter shall be installed as a five (5) host cluster to provide the following resources for the virtual servers:

> (1) 270Tb of raw storage
>
> (2) 205 vCPU
>
> (3) 610 vRAM

[183] The vSAN Datacenter Cluster nodes shall use an all-flash configuration to maintain storage performance on virtual servers.

[184] The IaaS equipment shall be installed and configured with a baseline that allows the equipment to be accessed over the network allowing Purchaser administrators to take-over the equipment and perform final configuration and testing.

3.5.3 Migration

[185] The Contractor shall provide Engineering Support to migrate equipment, services, users, and data from the existing environment to the new environment.

3.6 Physical Server Component

3.6.1 Introduction

[186] Physical servers for the Domain Controller and Backup Server roles shall be provided by the project.

3.6.2 Installation

[187] One (1) physical server shall be installed as a Domain Controller for each network classification in the Data Center locations.

[188] Two (2) physical servers shall be installed as Backup Servers for each network classification in the Data Center locations and one (1) Backup Server at ROBO locations.

[189] The physical Windows Domain Controller and Backup Servers shall be installed with PFE system updates, antivirus, and application software and ensure they are added to the domain to receive all appropriate GPO's and security settings.

3.6.3 Migration

[190] The Contractor shall provide Engineering Support to migrate equipment, services, users, and data from the existing environment to the new environment.

3.7 Backup & Archiving Component

3.7.1 Introduction

[191] Backup and archiving equipment (servers and tape libraries) shall be installed to protect system and user data in case of data deletion, data corruption and other scenarios.

3.7.2 Installation

[192] A two tier backup architecture using disk based storage for fast backup and restore, and backup to tape for long term retention and archive shall be installed.

[193] Data shall be protected by installing the backup server and tape library in a different server room to that of the source data.

[194] VEEAM Backup and Replication software (PFE) shall be installed for performing backup and archive.

[195] The backup server, drivers and associated backup software shall be installed.

[196] The tape media and library shall be installed and a backup schedule ensuring at least the following requirements shall be setup:

> (1) RPO (Recovery Point Objective)
>
> > a) **24 hours on system data**
> >
> > b) **24 hours on file, SharePoint and Email data**
> >
> > c) **1-24 hours for certain databases which shall be agreed during the implementation**
>
> (2) RTO (Recovery Time Objective)
>
> > a) **In case of a restore of a single system: 4 hours**

[197] All VM's and the backup media server shall be included in the backup schedule. At a minimum all system state data and user data shall be backed up.

[198] Domain Controller servers do not need to be backed up by VEEAM as they are equipped with different recovery methods.

[199] Backups shall be saved on disks for 1 Month after which they shall be archived on tape library.

[200] The backup schedule and retention plan shall be agreed with the purchaser.

[201] All backup traffic shall is routed through separate interfaces on a dedicated VLAN in order not to negatively impact operational traffic.

3.7.3 Migration

[202] The Contractor shall provide Engineering Support to migrate equipment, services, users, and data from

the existing environment to the new environment.

3.8   Security Component

3.8.1   Introduction

[203] Security equipment, including firewalls, network-based intrusions prevention systems (NIPS), mailguards, and XML-Labelling Guards shall be installed at network boundaries to protect and monitor the flow of information in and out of Balkans networks.

3.8.2   Installation

[204] The security components shall be installed to provide boundary protection services at the network boundaries of the three distinct networks supporting each Balkan missions: NATO Unclassified, NATO Secret, and Mission Secret.

[205] All security components (firewalls, mailguards, NIPS, XML-Labelling guards) shall be installed and configured with a baseline that allows for remote configuration and testing by the Purchaser.

[206] The NIPS components shall be installed as software modules on the firewalls. In cases where existing Palo Alto firewalls are to be provided as PFE, NIPS software modules are to be provided for use on the PFE firewalls.

[207] The security components shall be installed in the primary and secondary server rooms of the DC locations, with one NIPS-enabled firewall installed in the server room at the NLO Skopje ROBO location.

[208] The security components shall be installed at the following locations and specified network classifications as identified in the following table.

Table 4: Security Components Locations and Network Domains.

Theatre	Location	Network Domain	Security Components
KFOR	HQ	NS, NU	NIPS (on PFE firewalls)
KFOR	HQ	MS	Firewalls NIPS Mailguards XML-Labelling Guards
KFOR	NLO Skopje	NU	Firewalls NIPS
NHQ Sa / EUFOR	Butmir	NS, NU	Firewalls NIPS

| Theatre	Location	Network Domain	Security Components
NHQ Sa / EUFOR	Butmir	MS	Firewalls NIPS Mailguards

3.8.3 XML-Labelling Guard (XLG)

[209] The XML-Labelling Guard (XLG), also known as a "Web Guard," shall provide a cross-domain solution (CDS) based on the use of labels (NATO STANAGS ADatP-4774 and ADatP-4778). The key function of the XLG is to allow automated data exchange between two network enclaves that belong to different security domains. From the XLG's perspective, one enclave is defined as the high domain, and the other enclave as the low domain.

In an information-exchange scenario involving a high domain and a low domain, also called a cross-domain information exchange, shall address the following threats to the high domain:

(1) Leakage of confidential information from the high domain to the low domain;

(2) Degradation of the integrity or availability of resources in the high-security domain.

[210] Figure 15 illustrates these threats.
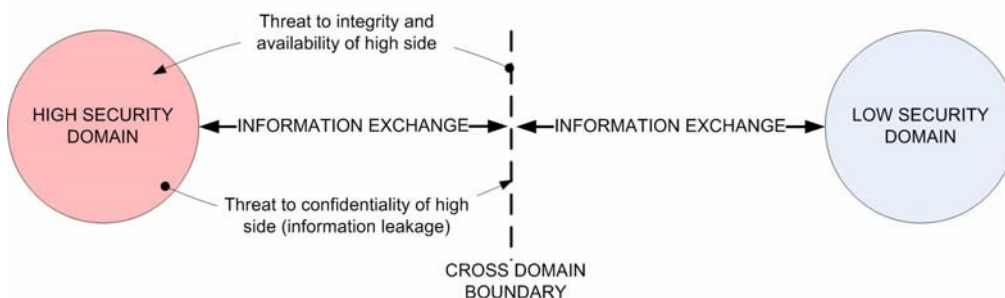
[211]

Figure 15: Threats to the high domain in cross-domain information exchange

[212] The XLG shall enable cross-domain information exchange by mediating traffic flows, while offering sufficient protection against the threats mentioned above by enforcing an appropriate security policy. In the case of high-to-low traffic, when information crosses the cross-domain boundary, the information is considered to have been 'released to the low domain.'

[213] The XLG shall protect the confidentiality of information, and the integrity and availability of resources in the high-security domain. The integrity and availability of the high domain is protected by allowing only those messages that have a white-listed message format to pass from the low domain to the high-security domain. In addition, constraints are set on the contents of the message. This is captured in a security policy.

[214] The confidentiality of information shall be protected when messages pass from the high domain to the

low domain by validating the confidentiality metadata label[1] that is bound to the information. Depending on the values contained in the label, the security policy in effect and the XLG's functionality/configuration, the XLG rejects the release of information, accepts it, or sanitizes the information by removing the parts that are in conflict with the security policy.

[215] From the XLG's point of view, each attempted transfer of data from the high to the low domain is considered a request for information release. In order to make the information-release decision to reject, accept or sanitize, the XLG shall validate a confidentiality metadata label that is bound to the information. The label and the binding mechanism must comply with the NATO standards ADatP-4774 and ADatP-4778. Depending on the information exchange scenario, the services in the COIs that use the XLG to transfer information, and the security policy in effect, the XLG shall either leave the confidentiality metadata label unaltered, remove it, or create a new (potentially modified) label. Removal of the label is an option if the label will not be processed any further in the low domain. If the XLG has sanitized information before release, and the low domain requires released information to be labelled, the XLG will have to create a new label and bind it to the information before release. If digital signatures are used, this means the XLG must include the functionality to generate signatures in addition to signature verification.

[216] To the COI services that make use of the XLG (in either the high or the low domain), the XLG shall act as a hypertext transfer protocol (HTTP) 1.1 proxy [IETF RFC 7230, 2014]. The specific behavior of the XLG with respect to HTTP connectivity however, will also be influenced by the security policy that is enforced by the XLG. The XLG mediates HTTP traffic between HTTP clients and HTTP servers that reside in the high or low domain. The XLG security policy pertains to both directions that HTTP messages can flow. For messages flowing from high to low, the enforcement of the XLG security policy is referred to as 'high to low enforcement'. For messages flowing from low to high, it is referred to as 'low to high enforcement', see Figure 16.

[217]

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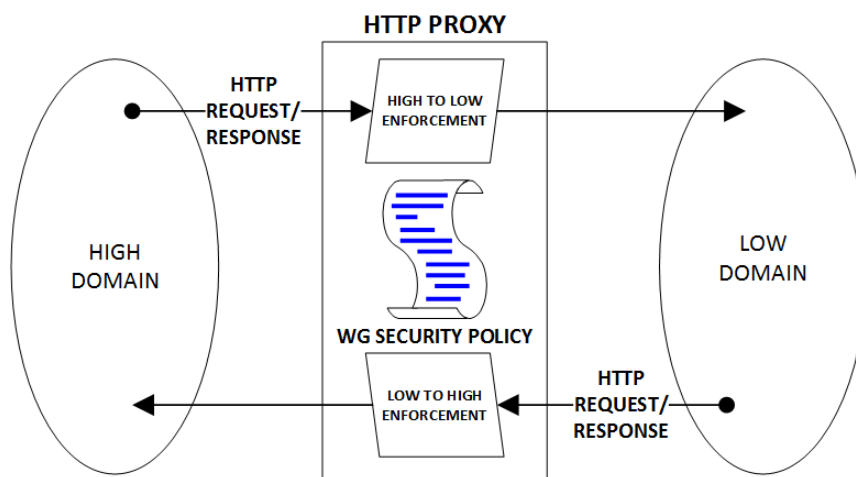
[1] **Term defined in NATO STANAGS ADatP-4774 and ADatP-4778.**

Figure 16: The XLG provides HTTP proxy functionality to both domains, and enforces a security policy on traffic flowing in both directions

[218] For both directions of traffic flow, the XLG security policy determines the security policy enforcement functionality that is enabled.

[219] The XLG facilitates the bi-directional transfer of HTTP [IETF RFC 7230, 2014] messages (request and response) between the high and low network domains.

    (1)   The XLG shall facilitate the mediation of HTTP messages between the high domain and low domains.

    (2)   The XLG shall be connected to both the high domain and the low domains via separate physical interfaces.

    (3)   The XLG shall persist HTTP and HTTPS connections across network domains, initiated from both the high domain and low domain (and vice-versa).

    (4)   The XLG shall support Transport Layer Security (TLS, [IETF RFC 5246, 2008]).

    (5)   The XLG shall be configurable to determine which TLS 1.2 extensions are to be supported between two communicating HTTP applications.

    (6)   With failed TLS connections, the XLG shall not fall back to an insecure connection.

    (7)   The XLG shall be capable of correlating HTTP request and response messages that belong to the same HTTP connection.

    (8)   The XLG shall support a minimum of 25 parallel information flows with different endpoints at either side. Each information flow may have multiple connections in parallel simultaneously.

    (9)   The XLG shall support different certificates for different information flows, as well as the reuse of the same certificate for several information flows.

    (10)   The XLG Network Time Protocol (NTP) service shall be synchronized to a designated authoritative NTP service.

    (11)   The XLG shall persist an HTTP connection until:

        a)   An HTTP response is received and the security policy has been enforced; or,

        b)   The HTTP connection is timed out.

    (12)   The XLG shall reassemble all chunks of an HTTP message that was received with chunked transfer encoding.

    (13)   The XLG shall ensure new HTTP connections (initiated by the XLG to the HTTP server on the high or low domain) shall not use the stateful HTTP protocol attributes associated with the connection to the XLG (initiated by the HTTP client in the high or low domain).

(14) The XLG shall perform error handling as specified in [IETF RFC 7231, 2014].

[220] The XLG intercepts HTTP and HTTPS traffic and enforces policies for controlling information flow.

(1) The XLG shall offer an information flow control policy enforcement capability to mediate the flow of information between the high domain and the low domain (and vice-versa) in accordance with the information flow policies.

(2) The XLG information flow control policy enforcement capability shall enforce information flow policies based upon the direction of message flow (high to low and low to high).

(3) The XLG information flow control policy enforcement capability shall accept an information flow (high to low or low to high) if enforcement of the information flow policy passes the rules configured for that information flow policy.

(4) The XLG information flow control policy enforcement capability shall enforce information flow policies based upon the following rules:

a) traffic flow that is allowed or disallowed based on source and destination IP addresses;

b) traffic that is allowed or disallowed based on protocols and ports;

c) traffic that is allowed or disallowed based on values of protocol fields; and,

d) information that is allowed or disallowed based on content inspection policy enforcement.

(5) The XLG information flow control policy enforcement shall use the XLG public key cryptographic capability (described later in this section) if the information flow is configured to support TLS connections.

(6) The XLG information flow control policy enforcement capability shall deny an information flow (high to low or low to high) if enforcement of the information flow policy fails any rule configured for that information flow policy.

(7) In the case an information flow policy has been violated the XLG information flow control policy enforcement capability shall be configurable to:

a) drop HTTP(S) connections;

b) reset HTTP(S) connections; or,

c) send a standard or custom HTTP error message.

(8) The XLG shall ensure that no illicit information flows exist to circumvent the enforcement of information flow policies.

[221] The XLG intercepts HTTP and HTTPS traffic and enforces policies for content inspection identifying, verifying, and transforming information based on those policies.

(1) The XLG shall offer a content inspection policy enforcement capability to mediate the types of information permitted to flow between the high domain and the low domain (and vice-versa) in accordance with the content inspection policies.

(2)   The XLG content inspection policy enforcement capability shall enforce content inspection policies based upon the direction of message flow (high to low and low to high).

(3)   The XLG content inspection policy enforcement capability shall manage and schedule the routing of information through content filters in accordance with the content inspection policies enforced per information flow.

(4)   The XLG content inspection policy enforcement capability shall accept information (high to low or low to high) if enforcement of all the content inspection policies pass the rules configured for that information.

(5)   The XLG content inspection policy enforcement capability shall be configured to support content inspection for the following information types:

   a)   HTTP messages as defined in Hypertext Transfer Protocol – HTTP/1.1 [IETF RFC 7230, 2014]; and,

   b)   XML 1.0 [W3C XML, 2006].

(6)   The XLG content inspection policy enforcement capability shall support XML schema validation compliant with XML Schema Language 1.0 [W3C XML Schema 1, 2004], [W3C XML Schema 2, 2004].

(7)   The XLG content inspection policy enforcement capability shall support canonicalization of XML conformant with Canonical XML Version 1.1 [W3X Canonical XML 1.1, 2008].

(8)   The XLG content inspection policy enforcement capability shall support XML Path Language (XPath) Version 1.0 [W3C XML Path Language 1.0].

(9)   The XLG content inspection policy enforcement capability shall support XML Pointer Language (XPointer) [W3C XPointer, 2002].

(10)   The XLG content inspection policy enforcement shall use the XLG public key cryptographic capability (described later in this section) for validating or signing information that is digitally signed or requires to be digitally signed.

(11)   The XLG content inspection policy enforcement capability shall provide HTTP entity-header validation.

   a)   The XLG content inspection policy enforcement capability shall prevent information about resources (e.g. IP addresses, host names, fully qualified domain names, system times, version numbers) to be leaked from the high domain to the low domain.

   b)   The XLG content inspection policy enforcement capability shall be configurable to permit a white list of allowed HTTP start-lines and HTTP entity-headers.

   c)   The XLG content inspection policy enforcement capability shall be configurable to block or transform HTTP messages that contain non-white-listed HTTP start-lines or HTTP entity-header fields.

    d)   The XLG content inspection policy enforcement capability shall be configurable to remove, add or modify HTTP start-lines, HTTP entity-header fields and HTTP entity-header field values.

(12) The XLG content inspection policy enforcement capability shall provide HTTP entity-body validation.

    a)   The XLG content inspection policy enforcement capability shall be configurable to constrain the size of HTTP message permitted.

    b)   The XLG content inspection policy enforcement capability shall be configurable to permit a white list of content types (also known as media type or MIME type) contained in the HTTP entity-body.

    c)   The XLG content inspection policy enforcement capability shall be configurable to permit a white list of XML Schemas.

    d)   The XLG content inspection policy enforcement capability shall validate XML-based content types contained in the HTTP entity-body are well formed.

    e)   The XLG content inspection policy enforcement capability shall validate XML-based content types contained in the HTTP entity-body against the white list of XML Schemas.

    f)   The XLG content inspection policy enforcement capability shall be configurable to block or transform an XML-based HTTP entity-body that fails XML Schema validation.

    g)   The XLG content inspection policy enforcement capability shall be configurable to transform an XML-based HTTP entity-body, whereby an XML node(s) fails XML Schema validation.

    h)   The XLG content inspection policy enforcement capability shall be configurable to apply XML canonicalization to an XML-based HTTP entity-body.

(13) The XLG content inspection policy enforcement capability shall provide confidentiality metadata label validation.

    a)   The XLG content inspection policy enforcement capability shall support the NATO standard ADatP-4774 "Confidentiality Metadata Label Syntax".

    b)   The XLG content inspection policy enforcement capability shall support the NATO standard ADatP-4778 "Metadata Binding Mechanism".

    c)   The XLG content inspection policy enforcement capability shall support the binding approaches 'encapsulating' and 'embedded' as defined in ADatP-4778.

    d)   The XLG content inspection policy enforcement capability MAY support the binding approach 'detached' as defined in ADatP-4778.

    e)   The XLG content inspection policy enforcement capability shall support the binding profile "Simple Object Access Protocol (SOAP) Binding Profile" in

ADatP-4778.

f) The XLG content inspection policy enforcement capability shall support the binding profile "Representational State Transfer (REST) Profile" in ADatP-4778.

g) The XLG content inspection policy enforcement capability shall support the binding profile "XML Signature Cryptographic Artefact Profile" in ADatP-4778.

h) The XLG content inspection policy enforcement capability shall support the binding profile "Digital Signature Cryptographic Artefact Profile" in ADatP-4778.

i) The XLG content inspection policy enforcement capability shall support the binding profile "Keyed-Hash Message Authentication Code Cryptographic Artefact Profile" in ADatP-4778.

j) The XLG content inspection policy enforcement capability shall provide functionality to import security labelling policies[2].

k) The XLG content inspection policy enforcement capability shall validate the confidentiality metadata label values against the security labelling policy, identified by the policy identifier.

l) The XLG content inspection policy enforcement capability shall validate the origin, integrity, and binding of a confidentiality metadata label.

m) The XLG content inspection policy enforcement capability shall be capable to support granular labelling as specified in ADatP-4778.

n) For each valid confidentiality metadata label bound to a data object the XLG shall perform a confidentiality metadata label-based access control decision.

o) The XLG content inspection policy enforcement capability shall provide functionality to remove ADatP-4778 binding information that has passed confidentiality metadata label validation and confidentiality metadata label-based access control.

p) The XLG content inspection policy enforcement capability shall provide functionality to remove digital signatures from ADatP-4778 binding information that has passed confidentiality metadata label validation and

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[2] A security labelling policy defines all the allowable values within a security policy and the relationships between them, such as: policy identifier, classification, and categories. In the context of access control using confidentiality labels and confidentiality clearances it primarily relates to two things: defines the confidentiality metadata values that are valid; and, defines how confidentiality metadata labels are matched against confidentiality clearances.

confidentiality metadata label-based access control.

q) The XLG content inspection policy enforcement capability shall provide functionality to remove confidentiality metadata labels (i.e. alternative confidentiality metadata label[3] from ADatP-4778 binding information that has passed confidentiality metadata label validation and confidentiality metadata label-based access control).

r) The XLG content inspection policy enforcement capability shall be capable to block or transform data objects that result in failed confidentiality metadata label validation or deny confidentiality metadata label-based access control decisions as a result of that confidentiality metadata label bound to that data object.

s) The XLG content inspection policy enforcement capability shall be capable to re-generate ADatP-4778 binding information for data objects that are being transformed.

(14) The XLG shall ensure that no illicit information flows exist to circumvent the enforcement of content inspection policies.

[222] The XLG shall provide confidentiality metadata label-based access control.

(1) The XLG shall provide configuration to upload confidentiality clearances[4] for an interconnection.

(2) The XLG shall compare the confidentiality metadata values from the confidentiality metadata label and the confidentiality clearance(s) configured for the interconnection based on the rules defined by the security labelling policy.

(3) In the case that the originator confidentiality metadata label is governed by an external security policy (identifiable by the confidentiality metadata label policy identifier) the XLG shall use the alternative confidentiality metadata label that matches the security policy enforced by the XLG.

[223] The XLG shall provide a public key cryptographic capability to provide cryptographic operations and key management.

(1) The XLG public key cryptographic capability shall conform to the INFOSEC Technical and Implementation Directive on Cryptographic Security and Cryptographic Mechanisms [NAC AC/322-D/0047-REV2 (INV), 2009].

(2) The cryptographic mechanisms implemented by XLG public key cryptographic capability shall be based on Technical Implementation Guidance on Cryptographic Mechanisms in Support of Cryptographic Services [NAC AC/322-D(2012)0022, 2012].

(3) The XLG public key cryptographic capability shall be compliant in accordance

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[3] Refer to ADatP-4774 for further information relevant to alternative confidentiality label.
[4] Refer to ADatP-4774 for further information relevant to confidentiality clearance.

with NATO-approved methods for key management (i.e. generation, access, distribution, destruction, handling, and storage of keys), and for cryptographic operations (i.e. encryption, decryption, signature, hashing, key exchange, and random-number-generation services) as described in the CIS Security Technical and Implementation Guidance in Support of Public Key Infrastructure – Cryptographic Aspects [NAC AC/322-D(2007)0002-REV1, 2015].

(4) The XLG public key cryptographic capability shall be compliant with NPKI Certificate Policy [NAC AC/322-D(2004)0024-REV3, 2018] and [NAC AC/322-D (2007)0002-REV1, 2015].

(5) The XLG public key cryptographic capability shall support the validation and generation of XML digital signatures based on XMLDSIG Core Validation [W3C XMLDSIG-CORE, 2008].

(6) The XLG public key cryptographic capability shall be compliant with "XML Signature Cryptographic Artefact Profile" in ADatP-4778 for generating and validating digital and keyed-hash message authentication code signatures.

(7) The XLG public key cryptographic capability shall be compliant with Transport Layer Security (TLS, [IETF RFC 5246, 2008]) for providing privacy and data integrity between two communicating HTTP applications.

(8) The XLG public key cryptographic capability shall provide configuration for permitted cipher suites to be negotiated and used between two communicating HTTP applications.

(9) The XLG public key cryptographic capability shall not fallback to cipher suites not configured for use in establishing a TLS connection between two communicating HTTP applications.

(10) The XLG public key cryptographic capability shall build a certificate path from a trusted certificate authority (CA) to each TLS server certificate, and each server certificate shall match the Fully Qualified Domain Name of the server and be valid.

(11) The XLG shall provide a capability to manage public key material.

    a) The XLG management of public key material shall be compliant with CIS Security Technical and Implementation Guidance in Support of Public Key Infrastructure – Cryptographic Aspects [NAC AC/322-D(2007)0002-REV1, 2015].

    b) The XLG shall provide capability to import and store key material.

    c) The XLG shall provide capability to import, remove, and update X.509 v3 certificates.

    d) The XLG shall provide capability to import, remove, and update X.509 v2 certificate revocation lists (CRL).

    e) The XLG shall support configuration of different public key material for multiple HTTP endpoints.

(12) The XLG public key cryptographic capability shall be configurable to retrieve certificates and CRLs locally and externally, supported by the following protocols:

    a) Lightweight Directory Access Protocol (LDAP, RFC 4510-4519); and,

    b) HTTP(S).

(13) The XLG public key cryptographic capability shall be configurable to check the status of certificates against CRLs:

    a) in accordance with the NPKI Certificate Policy [NAC AC/322-D(2004)0024-REV3, 2018].

    b) using the Online Certificate Status protocol (OCSP) [IETF RFC 6960, 2013].

(14) The XLG public key cryptography capability shall build certificate paths for all certificates using configured trust anchors and revocation information.

(15) The XLG public key cryptographic capability shall validate and verify public key material compliant with NPKI Certificate Policy [NAC AC/322-D(2004)0024-REV3, 2018] and [NAC AC/322-D(2007)0002-REV1, 2015].

(16) The XLG public key cryptography capability shall be configurable to perform digital signature verification and generation without checking CRLs or building certificate paths for validation per information flow.

[224] The XLG shall provide a management capability.

(1) The XLG shall provide a physical network interface providing Ethernet connectivity to facilitate local and remote management by the NCI Agency's Gateway Security Services team from the high domain, or a separate management domain.

(2) The XLG management capability shall provide support for multiple concurrent users with access control to enable multiple operators to simultaneously access the management capability from potentially distributed consoles with appropriately administered levels of access.

(3) The XLG management capability shall support the following interfaces:

    a) HyperText Transport Protocol (HTTP) [IETF RFC 7230, 2014] with Transport Layer Security (TLS, [IETF RFC 5246, 2008]);

    b) Command Line interface (CLI) via Secure Shell (SSH) Transport Layer protocol [IETF RFC 4251, 2006];

    c) Secure Shell Protocol (SSH) [IETF RFC 4253, 2006];

    d) Syslog [IETF RFC 5424, 2009];

    e) Network Time Protocol (NTP, [IETF RFC 5905, 2010]);

    f) Keyboard, Video and Mouse (KVM) over Ethernet; and,

    g) Simple Network Management Protocol (SNMP) v3 [IETF RFC 3410 - 3418].

(4) The XLG shall be capable of being managed locally.

(5)   The XLG management capability shall support the following capabilities:

a)   Operating System management

b)   Network connections management

c)   Information flow control policy enforcement management

(i)   HTTP entity-header vetting configuration

(ii)   HTTP entity-body configuration

(iii)   Rules configuration

d)   Content inspection policy enforcement management

(i)   Content filter configuration

(ii)   XML schema configuration

(iii)   Rules configuration

e)   Security labelling policy management

(i)   Security labelling policy configuration

(ii)   Confidentiality clearance configuration

(iii)   Rules configuration

f)   Public key management

(i)   Certificate and CRL configuration

(ii)   Application to individual flows

g)   Syslog Management

(i)   Configure events to be collected and logging severity levels (refer to RFC 5424) for each event.

(ii)   Events can be configured for individual flows.

(iii)   Thresholds for logging events (i.e. disk usage).

(iv)   Examine recorded historical logs and archives.

(v)   Size limit, rollover schedule and physical location for storing log files.

(vi)   Attributes to be recorded in events.

(vii)   Correlate requests and responses.

(viii)   Search criteria to support filtered logging analysis.

h)   Backup management

(i)   The XLG management capability shall provide the functionality to change, capture, duplicate, backup, or restore the configuration of the XLG.

(ii)   Incremental and full backup schedules.

(iii) Archive schedule.

(iv) Physical location for storing and managing backups.

(6) The XLG management capability shall be based on customizable (pre-loaded) configuration templates (e.g. XML schemas are pre-installed) in support of common information exchange scenarios that incorporate:

a) Confidentiality protection of resources in the high domain enhanced by providing TLS connectivity, HTTP entity-header vetting, and label-based access control before releasing the resources to the low domain.

b) Integrity and availability protection of resources in the high domain enhanced by providing TLS connectivity, HTTP entity-header vetting, and HTTP entity-body validation on transfer of HTTP messages received from the low domain.

(7) The XLG management capability shall provide a graphical user interface. However, configuration management using files shall still be possible.

(8) The XLG management shall provide the capability to start/stop/restart individual flows and to change and load configuration individually per information flow.

[225] The XLG shall support the following capacity requirements:

(1) The XLG shall support the concurrent processing of high to low and low to high traffic and meet the performance objectives for both traffic flows.

(2) The XLG shall support the concurrent execution of high to low and low to high policy enforcement and meet the performance objectives for each.

(3) The XLG shall be capable of handling at least 500 concurrent receive connections and 500 concurrent send side connections for both traffic flows (high to low and low to high).

(4) The XLG shall queue HTTP messages in the event that policy enforcement functionality is unavailable (up to a configurable maximum queue size).

(5) The XLG shall allow system management functions to be performed regardless of the load on the XLG.

(6) The XLG shall support the information exchange of HTTP messages with body size up to 10 GB.

(7) The XLG shall support parallel processing of HTTP messages, i.e. it SHALL be possible for the XLG to subject multiple different HTTP messages to policy enforcement at the same time.

[226] The XLG shall support the following performance requirements:

(1) The XLG shall be capable to support a continuous normal load without degradation in performance based on the following message size categories:

a) Very small HTTP messages: 70000 HTTP messages per minute with average message size 15 KB.

b) Small HTTP messages: 180 HTTP messages per minute with average message

size 5 MB.

   c)   Medium HTTP messages: 30 HTTP messages per minute with average message size 30 MB.

   d)   Large HTTP messages: 10 HTTP messages per minute with average message size 300 MB.

   e)   Very large HTTP messages: 2 HTTP messages per minute with average message size 1 GB.

(2)   The XLG shall be capable to support a continuous message processing time under normal load without degradation in performance based on the following message size categories:

   a)   Very small HTTP messages: < 200 milliseconds.

   b)   Small HTTP messages: < 3000 milliseconds.

   c)   Medium HTTP messages: < 15000 milliseconds.

   d)   Large HTTP messages: < 35000 milliseconds.

   e)   Very large HTTP messages: < 120000 milliseconds.

(3)   If an HTTP message is processed by the XLG that is too large for the category 'Very large HTTP messages', the XLG:

   a)   Shall continue to operate;

   b)   Shall create entries in the syslog and the management interface that can be monitored by the system administrator;

   c)   Shall be responsive to commands issued by a System Administrator;

   d)   Shall meet the capacity and performance requirements under normal load; and,

   e)   May terminate the processing of the HTTP message in order to do so.

(4)   In the case that an increased load is experienced over the normal load the XLG:

   a)   Shall continue to operate;

   b)   Shall create entries in the syslog and the management interface that can be monitored by the system administrator;

   c)   Shall be responsive to commands issued by a System Administrator;

   d)   Shall temporarily make additional resources available to deal with the peak load;

   e)   Shall failsafe and MAY reject HTTP traffic; and,

   f)   Shall recover to normal load as soon as feasible with a minimum decrease in capacity and performance requirements under peak load.

(5)   The impact of logging by the XLG on its performance shall remain within the following limits, for the following log severity levels [RFC 5424]:

a) For severity levels 'Emergency' (0), 'Alert' (1), 'Critical' (2), 'Error' (3), 'Warning' (4): no impact on performance;

b) For severity levels 'Notice' (5) and 'Informational' (6): a decrease in throughput of at most 40%.

c) For severity level 'Debug' (7): a decrease in throughput of at most 60%.

[227] The XLG shall support the following scalability requirements:

(1) The XLG shall be scalable such that when an increase in traffic occurs, capacity can be increased in order to keep meeting the capacity and performance requirements.

(2) The XLG shall be vertically scalable, i.e. the XLG shall be able to adapt its performance characteristics by having additional system resources added such as processing power, memory, disk capacity, or network capacity.

(3) The XLG shall be able to support additional system resources (introduction of additional storage capacity or server processing power) without having to modify the system architecture, replace existing components, interrupt or degrade current functional, capacity and performance requirements.

[228] The XLG shall support the following usability requirements:

(1) The XLG shall have a high degree of learnability, making it very easy to use for System Administrators even the first time.

[229] The XLG shall support the following reliability requirements:

(1) The XLG shall, despite the presence of hardware or software faults in part of the XLG, continue to perform the unaffected XLG functions.

(2) The XLG shall gracefully degrade in the condition where any dependent services and components are not available and notify the user for the limited functionality. Upon restoration of services, the XLG shall become fully operational.

(3) The XLG shall support recovery from backup and archive data to a stable (consistent) state with no data loss.

(4) The XLG shall provide authorised users with the ability to perform full and incremental backups of the XLG's data and software without impacting system availability.

(5) The XLG shall continue to receive and queue messages in the event of unavailability of send side networking.

(6) The XLG shall continue to dequeue and send messages in the event of unavailability of receive side networking.

(7) The XLG shall resume/retry XLG services in case of high latency/timeout/loss of network connectivity without loss of data. High latency is defined as latency exceeding one (1) minute.

[230] The XLG shall support the following maintainability requirements:

(1) Messages triggered by XLG Administrators (e.g., error, warning, notification and informational messages) shall contain initiating module information, context sensitive help or directives on where to find answers and solutions.

(2) XLG log messages shall contain initiating module information, Date/Time(Z), system instance, (log) message, category/severity, user (invoker of function), context information (like mission/session, service/function, parameters, and trace-log).

(3) The XLG shall be capable of being updated by an administrator on a regular basis in response to the release of product updates (firmware and hardware) due to known vulnerabilities.

[231] The XLG shall support the following portability requirements:

(1) A XLG System Administrator shall be able to successfully deploy (i.e., install and configure) the XLG within a time frame of one (1) working days after receiving a maximum of five (5) days of training.

(2) All software and documentation to be provided shall be in English (US) version.

(3) The XLG shall be designed to permit upgrading for use of new communication, processing, and storage technologies during its operational lifetime.

[232] The XLG shall support the following survivability requirements:

(1) The XLG shall automatically detect the availability and re-establishment of network connectivity and shall:

a) automatically continue or restart tasks that were ongoing at the time a failure occurred, and

b) initiate subsequent tasks as though network connectivity had not been lost.

(2) For redundancy purposes the XLG shall be capable of supporting failover between two instances of a XLG.

(3) The XLG shall not be a single point of failure for the interconnection between the high and low domains.

[233] The XLG shall support the following environment requirements:

(1) The XLG equipment shall not be damaged nor suffer loss of data, when any of the ambient temperature and humidity conditions contravene operating limits while power is available.

(2) The XLG support staff shall be able to manually resume normal operation of the XLG equipment within five (5) minutes from when ambient temperature and humidity conditions return to within operating limits.

[234] The XLG shall provide a capability to view, manage, archive, classify and protect audit logs for each of the general auditable events:

(1) XLG startup and shutdown;

(2) XLG logon and logoff;

(3) Creation, modification (i.e. changes to permissions), or deletion of accounts;

(4) Changes to security related system management functions;

(5) Modification to information flow control and content inspection policy enforcement configuration;

(6) Audit log access;

(7) Creation, modification, or deletion of audit log records;

(8) Invocation of privileged operations;

(9) Modification to XLG access rights;

(10) Unauthorised attempts to access XLG system files; and,

(11) All modified objects are recorded with reliable date and time, details of change, and account.

[235] The XLG shall provide the capability to support the generation of an audit log for each of the following policy enforcement auditable events:

(1) Failed policy enforcement operations;

(2) Policy enforcement violations;

(3) Unauthorised attempts to modify policy enforcement configuration;

(4) Creation, modification, and deletion of cryptographic keying material;

(5) Updates of content filters;

(6) Failed certificate path validation and revocation;

(7) Unauthorised attempts to request access to information cross domain;

(8) Unauthorised attempts to create, modify, or delete Information Flow Control policies; and,

(9) Unauthorised attempts to create, modify, or delete Content Inspection policies.

[236] The XLG shall provide the capability to selectively view audit information, and provide alerts of identified potential security violations.

[237] The XLG shall be evaluated to Common Criteria (CC) Evaluation Assurance Level (EAL) 4+ or national equivalent and be capable of being configured in accordance with Technical and Implementation Directive on CIS Security [NAC AC/322-D/0048-REV3, 2019].

[238] The XLG shall consider and apply the following directions, guidance, and obligations within the Technical and Implementation Directive for the Interconnection of CIS [NAC AC/322-D/0030-REV5, 2011]:

(1) NATO document AC/35-D/2002 "Directive on Security of Information".

(2) NATO document AC/35-D/2004 "Primary Directive on INFOSEC".

(3) NATO document AC/322-D(2004)0030 "Directive on Security Tools".

(4) NATO document C-M(2002)49 "Security Within the North Atlantic Treaty

Organisation".

3.8.4 Migration

[239] The Contractor shall provide Engineering Support to migrate equipment, services, users, and data from the existing environment to the new environment.

Annex A   Hardware and Software Requirements

Table of Contents

A.1 Hardware and software Requirements

A.1.1 Routers

A.1.1.1 Router Large

[1]   The large router shall feature the following specifications:

(1)   A minimum of 2Gbps of router throughput

(2)   A minimum of six interfaces capable of 1Gbps operation with different media types (SFP-based)

(3)   Redundant power supplies

(4)   A minimum of 4GB of DRAM memory

(5)   A minimum of 8GB of Flash

(6)   Capable of performing IPSEC encryption up to the router throughput data rates of 1Gbps

(7)   Support the industry High Availability features

(8)   Support for multi-mode and single-mode fiber SFP modules

(9)   support for link aggregation techniques for the uplink connections

(10)   Support for virtualization techniques (VRF)

(11)   Vendors support contract must be included

[2]   The NU data router platform for HQ meeting the above requirements is a Cisco ISR4451-X

#	PID	Minimum Requirements	Qty
1)	**ISR4451-X-K9**	Cisco ISR 4451 Sec Bundle, w/SEC license	1
2)	CON-SSSNT-ISR45XK9	CON-SSSNT-ISR45XK9 SOLN SUPP 8X5XNBD Cisco ISR 4451	1
3)	SL-44-IPB-K9	IP Base License for Cisco ISR 4400 Series	1
4)	FL-44-PERF-K9	Performance on Demand License for 4400 Series	1
5)	NIM-ES2-8	8-port Layer 2 GE Switch Network Interface Module	1
6)	PWR-4450-AC	AC Power Supply for Cisco ISR 4450 and ISR4350	1
7)	PWR-4450-AC/2	AC Power Supply (Secondary PS) for Cisco ISR 4450	1
8)	CAB-ACE	AC Power Cord (Europe), C13, CEE 7, 1.5M	2
9)	MEM-44-4G	4G DRAM (1 x 4G) for Cisco ISR 4400	1
10)	MEM-FLSH-8G	8G eUSB Flash Memory for Cisco ISR 4430	1
11)	POE-COVER-4450	Cover for empty POE slot on Cisco ISR 4450	2
12)	MEM-4400-DP-2G	2G DRAM (1 DIMM) for Cisco ISR 4400 Data Plane	1
13)	NIM-BLANK	Blank faceplate for NIM slot on Cisco ISR 4400	1
14)	SM-S-BLANK	Removable faceplate for SM slot on Cisco 2900,3900,4400 ISR	2
15)	SISR4400UK9-166	Cisco ISR 4400 Series IOS XE Universal	1

[3]

A.1.1.2 Router Small

[4]   The small router shall feature the following specifications:

      (1)   A minimum of 1Gbps of router throughput

      (2)   A minimum of four interfaces capable of 1Gbps operation with different media types

      (3)   Redundant power supplies

      (4)   A minimum of 4GB of DRAM memory

      (5)   A minimum of 8GB of Flash

      (6)   Support the industry High Availability features

      (7)   Support for multi-mode and single-mode fiber SFP modules

      (8)   support for link aggregation techniques for the uplink connections

      (9)   Support for virtualization techniques (VRF)

      (10) Vendors support contract must be included

[5]   The small router platform meeting the requirements is a Cisco ISR4431

#	PID	Minimum Requirements	Qty
1)	**ISR443/K9**	Cisco ISR 4431	1
2)	CON-SSSNT-ISR4431	SOLN SUPP 8X5XNBD Cisco ISR 4431	1
3)	SL-44-IPB-K9	IP Base License for Cisco ISR 4400 Series	1
4)	FL-44-PERF-K9	Performance on Demand License for 4400 Series	1
5)	NIM-ES2-8	8-port Layer 2 GE Switch Network Interface Module	1
6)	PWR-4430-AC	AC Power Supply for Cisco ISR 4430	1
7)	PWR-4430-AC/2	AC Power Supply (Secondary PS) for Cisco ISR 4430	1
8)	CAB-C13-C14-2M	Power Cord Jumper, C13-C14 Connectors, 2 Meter Length	2
9)	MEM-44-4G	4G DRAM (1 x 4G) for Cisco ISR 4400	1
10)	MEM-FLSH-8G	8G eUSB Flash Memory for Cisco ISR 4430	1
11)	MEM-4400-DP-2G	2G DRAM (1 DIMM) for Cisco ISR 4400 Data Plane	1
12)	NIM-BLANK	Blank faceplate for NIM slot on Cisco ISR 4400	2
13)	SISR4400UK9-166	Cisco ISR 4400 Series IOS XE Universal	1
14)	TPST	Certified and provided with SDIP-27 Level B/C TEMPEST Certificate (As indicated in RFQ Bidding Sheet/SSS).	1

A.1.1.3 Router large PVDM module

[6]   The large routers for voice&video need to be equipped with a PVDM card to support the required voice operations. This goal is achieved by installation of the following components and the installation needs to be carried out by the Contractor:

#	PID	Minimum Requirements	Qty
1)	PVDM-4-256	256-channel DSP module	1

A.1.1.4 Router small PVDM module

[7]   The small routers for voice&video need to be equipped with a PVDM card to support the required voice operations. This goal is achieved by installation of the following components and the installation needs to be carried out by the Contractor:

#	PID	Minimum Requirements	Qty
1	PVDM-4-128	128-channel DSP module	1

A.1.1.5 Router large E1 card

[8]   The large NU router for voice&video needs to be equipped with additional E1-card to suppotr the required voice operations. This goal is achieved by installation of the following components and the installation needs to be carried out by the Contractor:

#	PID	Minimum Requirements	Qty
2)	NIM-2MFT-T1/E1	2 port Multiflex Trunk Voice/Clear-channel Data T1/E1 Module	1

A.1.1.6 Router small E1 card

[9]   The new NU routers for voice&video need to be equipped with additional hardware to suppoer the required voice operations. This goal is achieved by installation of the following components and the installation needs to be carried out by the Contractor:

#	PID	Minimum Requirements	Qty
3)	NIM-2MFT-T1/E1	2 port Multiflex Trunk Voice/Clear-channel Data T1/E1 Module	1

A.1.1.7 Router License for IPSEC encryption

[10]   The new NU routers, both for data and the voice&video, need to be able to perform high-speed IPSEC encryption operations. This goal is achieved by installation of the following license and it need to be carrier out by the contractor:

#	PID	Minimum Requirements	Qty
4)	SL-44-SEC-K9	Security License for Cisco ISR 4400 Series	1
5)	FL-44-HSEC-K9	U.S. Export Restriction Compliance license for 4400 series	1

A.1.1.8 Router License for Collaboration

[11]   The new routers for voice&video, need to be able support collaboration features (Unified Communications). This goal is achieved by installation of the following license and it need to be carrier out by the contractor:

#	PID	Minimum Requirements	Qty
6)	SL-44-UC-K9	Unified Communication License for Cisco ISR 4400 Series	1

A.1.1.9 Router License for SRST

[12] The new NU routers for voice&video need to be equipped with additional hardware to suppoer the required voice operations. This goal is achieved by installation of the following components and the installation needs to be carried out by the Contractor:

#	PID	Minimum Requirements	Qty
7)	SRST-EP	Cisco SRST – 1 SRST Endpoint License (EDelivery Smart)	1

A.1.2 Data Center Switches

A.1.2.1 Data Center Switch

[13] The Data Center SFP switch shall meet the following minimum requirements :

    (1)   Switching capacity up to 2.56Tbps

    (2)   A minimum of thirty two interfaces capable of 10/40 Gbps operation with different media types (QSFP+)

    (3)   Reduntant hot-swappable power supplies

    (4)   Support the industry High Availability features (VRRP)

    (5)   Support for multi-mode and single-mode fiber QSFP+ modules

    (6)   Support for link aggregation techniques (LACP)

    (7)   Support for Virtual Extensible LAN (VXLAN)

    (8)   Support for BGP routing

    (9)   Vendors support contract must be included

[14] The Data Center switch platform meeting the above requirements is a Dell S6010

#	Description	Qty
1)	**Dell Networking S6010-ON, 1U, 32x 40GbE QSFP+, 2x AC PSUs,IO to PSU Airflow, OS9**	1
2)	Dell Networking, Transceiver, 40GbE QSFP+ SR4, MTP, MMF	2
3)	Dell Networking, Transceiver, 40GbE QSFP+ LR4, MTP, SMF	2
4)	Power Cord, PDU (Rack)	1
5)	OS9 installed on S6010-ON, with entitlement to OS10 Enterprise	1
6)	Software, Rights to use L3, S6010-ON	1
7)	S6010-ON User Documentation EMEA	1
8)	Base Warranty	1
9)	1Yr Return to Depot - Minimum Warranty	1
10)	90 Day SW Bug Fixes Support Media Replacement	1
11)	INFO 1Yr ProSupport and 4hr Mission Critical	1
12)	3Yr ProSupport and 4hr Mission Critical	1

Disclaimer: Lines 2 and 3 present different QSPF+ solution options for the inter-switch connectivity and are given here for the reference purposes. Different combinations of these might be required depending on the local requirements

A.1.2.2 Data Center Top-of-Rack (TOR) switch

[15]   The Data Center Top-of-Rack switch and shall meet the following minimum requirements :

   (1)   Switching capacity up to 2Tbps

   (2)   A minimum of forty eight interfaces capable of 10 Gbps operation (SFP+)

   (3)   A minimum of six uplink interfaces capable of 40 operation (QSFP+)

   (4)   Reduntant hot-swappable power supplies

   (5)   Support the industry High Availability features (VRRP)

   (6)   Support for multi-mode and single-mode fiber and 10GBASE-T SFP+ modules

   (7)   Support for link aggregation techniques (LACP)

   (8)   Support for Virtual Extensible LAN (VXLAN)

   (9)   Support for BGP routing

   (10)   Vendors support contract must be included

[16]   The Data Center Top-of-Rack platform meeting the above requirements is a Dell S4048-ON

#	Product Description	Qty
1)	**Dell Networking S4048-ON, 48x 10GbE and 6x 40GbE QSFP+ ports,IO to PSU air, 1x AC PSUs, DNOS9**	1
2)	Power Cord, PDU (Rack)	1
3)	Power Supply, AC, 460w, IO to PSU airflow, S4048-ON	1
4)	Dell Networking, Tranceiver, 10Gbe SFP+, 10GBASE-T, Copper	24
5)	Dell Networking, Cable, QSFP+ to QSFP+, 40GbE Passive Copper Direct Attach Cable, 3 m	2
6)	Dell Networking, Transceiver, 40GbE QSFP+ SR4, MTP, MMF	2
7)	Dell Networking, Transceiver, 40GbE QSFP+ LR4, MTP, SMF	2
8)	OS9 installed on S4048-ON, with entitlement to OS10 Enterprise	1
9)	Base Warranty	1
10)	1Yr Return to Depot - Minimum Warranty	1
11)	90 Day SW Bug Fixes Support Media Replacement	1
12)	3Yr ProSupport and 4Hr Mission Critical	1

Disclaimer: Lines 3,4,5 and 6 present different QSPF+ solution options for the inter-switch connectivity and are given here for the reference purposes. Different combinations of these might be required depending on the local requirements

A.1.3 LAN switches

A.1.3.1 Core Switch

[17] The Core switch shall meet the following minimum requirements :

  (1) Switching capacity up to 2Tbps

  (2) A minimum of twenty four interfaces capable of 10/25 Gbps operation with different media types (SFP+/SFP28)

  (3) A minimum of four uplink interfaces capable of 40/100Gbps operation (QSFP+/QSFP28)

  (4) Reduntant power supplies

  (5) A minimum of 16GB of DRAM memory

  (6) A minimum of 16GB of Flash

  (7) Support the industry High Availability features

  (8) Support for multi-mode and single-mode fiber SFP modules

  (9) Support for link aggregation techniques for the uplink connections

  (10) Support for virtual-stacking features

  (11) Vendors support contract must be included

[18] The LAN Core switch platform meeting the above requirements is a Cisco Catalyst C9500-24YC4C-A

#	PID	Description	Qty
1)	**C9500-24Y4C-A**	Catalyst 9500 24x1/10/25G and 4-port 40/100G, Advantage	1
2)	CON-SSSNT-C95024YA	SOLN SUPP 8X5XNBD Catalyst 9500 24-port 25/100G only, Adva	1
3)	C9500-NW-A	C9500 Network Stack, Advantage	1
4)	S9500UK9-169	UNIVERSAL	1
5)	C9K-PWR-650WAC-R	650W AC Config 4 Power Supply front to back cooling	1
6)	C9K-PWR-650WAC-R/2	650W AC Config 4 Power Supply front to back cooling	1
7)	CAB-C13-C14-AC	Power cord, C13 to C14 (recessed receptacle), 10A	2
8)	C9K-F1-SSD-BLANK	Cisco pluggable SSD storage	1
9)	C9K-T1-FANTRAY	Catalyst 9500 Type 4 front to back cooling Fan	2
10)	C9500-DNA-24Y4C-A	C9500 DNA Advantage, Term License	1
11)	C9500-DNA-L-A-5Y	DNA Advantage 5 Year License	1
12)	PI-LFAS-T	Prime Infrastructure Lifecycle & Assurance Term - Smart Lic	3
13)	PI-LFAS-AP-T-5Y	PI Dev Lic for Lifecycle & Assurance Term 5Y	3
14)	NETWORK-PNP-LIC	Network Plug-n-Play Connect for zero-touch device deployment	1
15)	**C9500-24Y4C-A**	Catalyst 9500 24x1/10/25G and 4-port 40/100G, Advantage	1
16)	CON-SSSNT-C95024YA	SOLN SUPP 8X5XNBD Catalyst 9500 24-port 25/100G only, Adva	1
17)	C9500-NW-A	C9500 Network Stack, Advantage	1
18)	S9500UK9-169	UNIVERSAL	1
19)	C9K-PWR-650WAC-R	650W AC Config 4 Power Supply front to back cooling	1
20)	TPST	Certified and provided with SDIP-27 Level B/C TEMPEST Certificate (As indicated in RFQ Bidding Sheet/SSS).	1

A.1.3.2 Access Switch Large (SFP)

[19] The large access switch for NS and MS shall meet the following minimum requirements:

(1) Switching capacity up to 480Gbps

(2) A minimum of forty eight SFP-based interfaces capable of 1 Gbps operation with different media types

(3) A minimum of two uplink ports capable of 10Gbps operation with different media types

(4) Reduntant power supplies

(5) A minimum of 8GB of DRAM memory

(6) A minimum of 16GB of Flash

(7) Support the industry High Availability features

(8) Support for multi-mode and single-mode fiber SFP modules

(9) Support for link aggregation techniques for the uplink connections

(10) Support for stacking features

(11) Vendors support contract must be included

(12) Devices need to be tempest tested

(13)

[20] The large access switch for NS and MS meeting the requirement is a Cisco Catalyst C9300-48S-E

#	PID	Description	Qty
1)	**C9300-48S-E**	Catalyst 9300 48 GE SFP Ports, modular uplink Switch	1
2)	CON-SSSNT-C930048S	SOLN SUPP 8X5XNBD Catalyst 9300 48 GE SFP Ports, modular u	1
3)	C9300-NW-E-48	C9300 Network Essentials, 48-port license	1
4)	PWR-C1-715WAC-P	715W AC 80+ platinum Config 1 Power Supply	1
5)	PWR-C1-715WAC-P/2	715W AC 80+ platinum Config 1 SecondaryPower Supply	1
6)	CAB-TA-EU	Europe AC Type A Power Cable	2
7)	C9300-NM-8X	Catalyst 9300 8 x 10GE Network Module	1
8)	CAB-SPWR-150CM	Catalyst Stack Power Cable 150 CM - Upgrade	1
9)	S9300UK9-1612	Cisco Catalyst 9300 XE 16.12 UNIVERSAL	1
10)	STACK-T1-3M	3M Type 1 Stacking Cable	1
11)	C9300-DNA-E-48S	C9300 DNA Essentials, 48-Port Fiber Term Licenses	1
12)	C9300-DNA-E-48S-5Y	C9300 DNA Essentials, 48-port Fiber, 5 Year Term License	1
13)	GLC-SX-MMD	1000BaseSX multimode transceiver module	24
14)	NETWORK-PNP-LIC	Network Plug-n-Play Connect for zero-touch device deployment	1

Additionally, the switch delivery should be complemented with the patch-cables in a number equal to the quantity of Multi-mode SPFs(24) (line 13 in the list above)

VALUE FO 50/125 LC/LC OM3 3m	24

A.1.3.3 Access Switch Small (SFP)

[21] The small access switch for NS and MS shall meet the following minimum requirements (Cisco Catalyst 9300-24S-E):

> (1) Switching capacity up to 480Gbps
>
> (2) A minimum of twenty four SFP-based interfaces capable of 1 Gbps operation with different media types
>
> (3) A minimum of two uplink ports capable of 10Gbps operation with different media types
>
> (4) Reduntant power supplies
>
> (5) A minimum of 8GB of DRAM memory
>
> (6) A minimum of 16GB of Flash
>
> (7) Support the industry High Availability features
>
> (8) Support for multi-mode and single-mode fiber SFP modules
>
> (9) Support for link aggregation techniques for the uplink connections
>
> (10) Support for stacking features
>
> (11) Vendors support contract must be included
>
> (12) Devices need to be tempest tested

[22] The small access switch for NS and MS meeting the requirement is a Cisco Catalyst C9300-24S-E

> (1)

#	PID	Description	Qty
1)	**C9300-24S-E**	Catalyst 9300 24 GE SFP Ports, modular uplink Switch	1
2)	CON-SSSNT-C930024E	SOLN SUPP 8X5XNBD Catalyst 9300 24 GE SFP Ports, modular u	1
3)	C9300-NW-E-24	C9300 Network Essentials, 24-port license	1
4)	S9300UK9-1612	Cisco Catalyst 9300 XE 16.12 UNIVERSAL	1
5)	PWR-C1-715WAC-P	715W AC 80+ platinum Config 1 Power Supply	1
6)	PWR-C1-715WAC-P/2	715W AC 80+ platinum Config 1 SecondaryPower Supply	1
7)	CAB-C15-CBN	Cabinet Jumper Power Cord, 250 VAC 13A, C14-C15 Connectors	2
8)	C9300-NM-8X	Catalyst 9300 8 x 10GE Network Module	1
9)	STACK-T1-3M	3M Type 1 Stacking Cable	1
10)	CAB-SPWR-150CM	Catalyst Stack Power Cable 150 CM - Upgrade	1
11)	C9300-DNA-E-24S	C9300 DNA Essentials, 24-Port Fiber Term Licenses	1
12)	C9300-DNA-E-24S-5Y	C9300 DNA Essentials, 24-Port Fiber, 5 Year Term License	1
13)	GLC-SX-MMD	1000BaseSX multimode transceiver module	12
14)	NETWORK-PNP-LIC	Network Plug-n-Play Connect for zero-touch device deployment	1
15)	TPST	Certified and provided with SDIP-27 Level B/C TEMPEST Certificate (As indicated in RFQ Bidding Sheet/SSS).	1

Additionally, the switch delivery should be complemented with the patch-cables in a number equal to the quantity of Multi-mode SPFs(12) (line 13 in the list above)

VALUE FO 50/125 LC/LC OM3 3m	12

A.1.3.4 Access Switch Large (UTP)

[23]   The large access switch for NS and MS shall meet the following minimum requirements:

    (1)   Switching capacity up to 480Gbps

    (2)   A minimum of forty eight copper-based interfaces capable of 1 Gbps operation

    (3)   A minimum of two uplink ports capable of 10Gbps operation with different media types

    (4)   Reduntant power supplies

    (5)   A minimum of 8GB of DRAM memory

    (6)   A minimum of 16GB of Flash

    (7)   Support the industry High Availability features

    (8)   Support for multi-mode and single-mode fiber SFP modules

    (9)   Support for link aggregation techniques for the uplink connections

    (10) Support for stacking features

    (11) Half of available SFP ports have to be populated with 1000BaseSX capable modules

    (12) Vendors support contract must be included

[24]

[25]   The LAN access switch platform is a Cisco Catalyst C9300-48P-E

#	PID	Description	Qty
1)	**C9300-48T-E**	Catalyst 9300 48-port data only, Network Essentials	1
2)	CON-SSSNT-C930048E	SOLN SUPP 8X5XNBD Catalyst 9300 48-port data only, Network	1
3)	C9300-NW-E-48	C9300 Network Essentials, 48-port license	1
4)	S9300UK9-1612	Cisco Catalyst 9300 XE 16.12 UNIVERSAL	1
5)	PWR-C1-350WAC-P	350W AC 80+ platinum Config 1 Power Supply	1
6)	PWR-C1-350WAC-P/2	350W AC 80+ platinum Config 1 Secondary Power Supply	1
7)	CAB-TA-EU	Europe AC Type A Power Cable	2
8)	STACK-T1-50CM	50CM Type 1 Stacking Cable	1
9)	CAB-SPWR-30CM	Catalyst Stack Power Cable 30 CM	1
10)	C9300-DNA-E-48	C9300 DNA Essentials, 48-Port Term Licenses	1
11)	C9300-DNA-E-48-5Y	C9300 DNA Essentials, 48-port - 5 Year Term License	1
12)	C9300-NM-8X	Catalyst 9300 8 x 10GE Network Module	1
13)	NETWORK-PNP-LIC	Network Plug-n-Play Connect for zero-touch device deployment	1

A.1.3.5 Access Switch Small (UTP)

[26]   The small access switch for NU shall meet the following minimum :

    (1)   Switching capacity up to 480Gbps

    (2)   A minimum of twenty four copper-based interfaces capable of 1 Gbps operation

    (3)   A minimum of two uplink ports capable of 10Gbps operation with different media types

    (4)   Reduntant power supplies

    (5)   A minimum of 8GB of DRAM memory

    (6)   A minimum of 16GB of Flash

    (7)   Support the industry High Availability features

    (8)   Support for multi-mode and single-mode fiber SFP modules

    (9)   Support for link aggregation techniques for the uplink connections

    (10)   Support for stacking features

    (11)   Half of available SFP ports have to be populated with 1000BaseSX capable modules

    (12)   Vendors support contract must be included

[27]   The small access switch platform meeting the above requirements is a Cisco Catalyst C9300-24P-E

#	PID	Description	Qty
14)	**C9300-24T-E**	Catalyst 9300 24-port data only, Network Essentials	1
15)	CON-SSSNT-C93002TE	SOLN SUPP 8X5XNBD Catalyst 9300 24-port data only, Network	1
16)	C9300-NW-E-24	C9300 Network Essentials, 24-port license	1
17)	S9300UK9-1612	Cisco Catalyst 9300 XE 16.12 UNIVERSAL	1
18)	PWR-C1-350WAC-P	350W AC 80+ platinum Config 1 Power Supply	1
19)	PWR-C1-350WAC-P/2	350W AC 80+ platinum Config 1 Secondary Power Supply	1
20)	CAB-TA-EU	Europe AC Type A Power Cable	2
21)	STACK-T1-50CM	50CM Type 1 Stacking Cable	1
22)	CAB-SPWR-30CM	Catalyst Stack Power Cable 30 CM	1
23)	C9300-DNA-E-24	C9300 DNA Essentials, 24-Port Term Licenses	1
24)	C9300-DNA-E-24-5Y	C9300 DNA Essentials, 24-Port, 5 Year Term License	1
25)	C9300-NM-8X	Catalyst 9300 8 x 10GE Network Module	1
26)	NETWORK-PNP-LIC	Network Plug-n-Play Connect for zero-touch device deployment	1

A.1.3.6 Access Switch Large (PoE)

[28]   The large access switch for NU PoE shall meet the following minimum requirements

   (1)   Switching capacity up to 480Gbps

   (2)   A minimum of forty eight copper-based interfaces capable of 1 Gbps operation and providing PoE power of at least 15.4W per port

   (3)   A minimum of two uplink ports capable of 10Gbps operation with different media types

   (4)   Reduntant power supplies

   (5)   A minimum of 8GB of DRAM memory

   (6)   A minimum of 16GB of Flash

   (7)   Support the industry High Availability features

   (8)   Support for multi-mode and single-mode fiber SFP modules

   (9)   Support for link aggregation techniques for the uplink connections

   (10) Support for stacking features

   (11) Vendors support contract must be included

[29]   The large PoE switch platform is a Cisco Catalyst 9300-48P-E

#	PID	Description	Qty
1)	**C9300-48P-E**	Catalyst 9300 48-port PoE+, Network Essentials	1
2)	CON-SSSNT-C93004PE	SOLN SUPP 8X5XNBD Catalyst 9300 48-port PoE+, Network Esse	1
3)	C9300-NW-E-48	C9300 Network Essentials, 48-port license	1
4)	S9300UK9-169	UNIVERSAL	1
5)	PWR-C1-715WAC-P	715W AC 80+ platinum Config 1 Power Supply	1
6)	CAB-TA-EU	Europe AC Type A Power Cable	2
7)	PWR-C1-715WAC-P/2	715W AC 80+ platinum Config 1 SecondaryPower Supply	1
8)	STACK-T1-50CM	50CM Type 1 Stacking Cable	1
9)	CAB-SPWR-30CM	Catalyst Stack Power Cable 30 CM	1
10)	C9300-DNA-E-48	C9300 DNA Essentials, 48-Port Term Licenses	1
11)	C9300-DNA-E-48-5Y	C9300 DNA Essentials, 48-port - 5 Year Term License	1
12)	C9300-NM-4G	Catalyst 9300 4 x 1GE Network Module	1
13)	NETWORK-PNP-LIC	Network Plug-n-Play Connect for zero-touch device deployment	1

A.1.3.7 POE Switches (Access, Small)

[30] The small PoE switch for NU V2 shall meet the following minimum requirements:

    (1) Switching capacity up to 480Gbps

    (2) A minimum of twenty four copper-based interfaces capable of 1 Gbps operation and providing PoE power of at least 15.4W per port

    (3) A minimum of two uplink ports capable of 10Gbps operation with different media types

    (4) Reduntant power supplies

    (5) A minimum of 8GB of DRAM memory

    (6) A minimum of 16GB of Flash

    (7) Support the industry High Availability features (

    (8) Support for multi-mode and single-mode fiber SFP modules

    (9) Support for link aggregation techniques for the uplink connections

    (10) Support for stacking features

    (11) Vendors support contract must be included

[31] The large PoE switch platform meeting the above requirements a Cisco Catalyst 9300-24P-E

#	PID	Description	Qty
1)	**C9300-24P-E**	Catalyst 9300 24-port PoE+, Network Essentials	1
2)	CON-SSSNT-C93002PE	SOLN SUPP 8X5XNBD Catalyst 9300 24-port PoE+, Network Esse	1
3)	C9300-NW-E-24	C9300 Network Essentials, 24-port license	1
4)	S9300UK9-169	UNIVERSAL	1
5)	PWR-C1-715WAC-P	715W AC 80+ platinum Config 1 Power Supply	1
6)	CAB-TA-EU	Europe AC Type A Power Cable	2
7)	PWR-C1-715WAC-P/2	715W AC 80+ platinum Config 1 SecondaryPower Supply	1
8)	STACK-T1-50CM	50CM Type 1 Stacking Cable	1
9)	CAB-SPWR-30CM	Catalyst Stack Power Cable 30 CM	1
10)	C9300-DNA-E-24	C9300 DNA Essentials, 24-Port Term Licenses	1
11)	C9300-DNA-E-24-5Y	C9300 DNA Essentials, 24-Port, 5 Year Term License	1
12)	C9300-NM-4G	Catalyst 9300 4 x 1GE Network Module	1
13)	NETWORK-PNP-LIC	Network Plug-n-Play Connect for zero-touch device deployment	1

A.1.4 Analogue Voice Gateway

A.1.4.1 Analogue Voice Gateway (large)

[32]   The large Analog Voice Gateway platform is a Cisco VG450-144FX

#	PID	Description	Qty
1)	**VG450-144FXS/K9**	Cisco VG450 144 FXS Bundle	1
2)	CON-SSSNT-VG45XK14	SOLN SUPP 8X5XNBD Cisco VG450 144 FXS Bundle	1
3)	CAB-CONSOLE-USB	Console Cable 6ft with USB Type A and mini-B	1
4)	CAB-CONSOLE-RJ45	Console Cable 6ft with RJ45 and DB9F	1
5)	SL-44-IPB-K9	IP Base License for Cisco ISR 4400 Series	1
6)	SL-VG450-UC-K9	Unified Communication License for VG450 Series	1
7)	MEM-4460-16G	16G DRAM (1 DIMM) for Cisco ISR 4461	1
8)	MEM-FLSH-8U16G	8G to 16G eUSB Flash Memory Upgrade for Cisco ISR 4430	1
9)	ACS-4460-FANASSY	Cisco ISR 4460 Fan Assembly	1
10)	MEM-4460-DP-4G	4G DRAM for Cisco ISR 4460 Data Plane	1
11)	POE-COVER-4450	Cover for empty POE slot on Cisco ISR 4450	2
12)	NIM-BLANK	Blank faceplate for NIM slot on Cisco ISR 4400	3
13)	PWR-4460-650-AC2	Redundant 650W AC Power Supply for Cisco ISR 4461	1
14)	CAB-ACE	AC Power Cord (Europe), C13, CEE 7, 1.5M	2
15)	PWR-4460-650-AC	650W AC Power Supply for Cisco ISR 4461	1
16)	SVG450UK9-1610	Cisco VG450 Series IOS XE UNIVERSAL	1
17)	SM-X-72FXS	Fixed Port High Density Analog Voice ServiceModule for ISR4K	2
18)	Gigaset DA-710	Gigaset DA-710 Analog phone	25

A.1.4.2 Analogue Voice Gateway (medium)

[33]   he large Analog Voice Gateway platform is a Cisco VG320

#	PID	Description	Qty
1)	**VG320**	Modular 48 FXS Port VoIP Gateway with PVDM3-128	1
2)	CON-SSSNT-VG320ICV	SOLN SUPP 8X5XNBD Modular 48 FXS Port VoIP Gateway with PVDM	1
3)	SVG3XUK9-15603M	Cisco VG3X0 UNIVERSAL	1
4)	MEM-CF-256U4GB	256MB to 4GB Compact Flash Upgrade for Cisco 1900,2900,3900	1
5)	PVDM3-128U256	PVDM3 128-channel to 256-channel factory upgrade	1
6)	CAB-ACE	AC Power Cord (Europe), C13, CEE 7, 1.5M	1
7)	HWIC-BLANK	Blank faceplate for HWIC slot on Cisco ISR	1
8)	SL-VG3X0-IPB-K9	Cisco VG3X0 IP Base License	1
9)	SL-VG3X0-UC-K9	Cisco VG3X0 Unified Communications License	1
10)	Gigaset DA-710	Gigaset DA-710 Analog phone	20

A.1.5 NU VOIP phone (EUFOR Users only)

[34]   The VoIP phone model shall be a Cisco 8841

#	PID	Description	Qty
1)	**CP-8841-K9=**	Cisco IP Phone 8841	400
2)	CON-SNT-CP8841K9	SNTC-8X5XNBD Cisco UC Phone 8841	400
3)	**R-UCL-UCM-LIC-K9**	Top Level SKU For UCL User License - eDelivery	1
4)	CON-SWP1-RUCLUCK9	SW SUPPORT ENHANCED Top Level SKU For 9.	1
5)	LIC-CUCM-11X-ENH-A	UC Manager-11.x Enhanced Single User License	400
6)	CON-SWP1-LICXENHA	SW SUPPORT ENHANCED UC Manager-11.x Enhanced Single User-Und	400
7)	UCM-PAK	UCMPAK	1
8)	EXPWY-VE-C-K9	Cisco Expressway-C Server, Virtual Edition	2
9)	EXPWY-VE-E-K9	Cisco Expressway-E Server, Virtual Edition	2
10)	LIC-EXP-DSK	Expressway Desktop Endpoint License	400
11)	LIC-CUCM-11X-ENH	UC Manager Enhanced 11.x License	400
12)	LIC-EXP-E-PAK	Expressway Series, Expressway-E PAK	1
13)	LIC-EXP-GW	Enable GW Feature (H323-SIP)	4
14)	LIC-EXP-E	Enable Expressway-E Feature Set	2
15)	LIC-EXP-TURN	Enable TURN Relay Option	2
16)	LIC-EXP-AN	Enable Advanced Networking Option	2
17)	LIC-SW-EXP-K9	License Key Software Encrypted	4
18)	LIC-EXP-SERIES	Enable Expressway Series Feature Set	4
19)	SW-EXP-12.X-K9	Software Image for Expressway with Encryption, Version X12	1

A.1.6 NU Analogue phone (NATO Users only)

[35]   The analog phone model shall be a Gigaset DA-710

#	Item	Description	Qty
1)		Gigaset DA-710 Analog phone	1

A.1.7 Tranceiver modules

A.1.7.1 SFP Modules (Access 1Gb copper)

[36]   The SFP module for copper 1Gbps links is GLC-TE

#	PID	Description	Qty
1)	GLC-TE=	1000BASE-T SFP transceiver module for Category 5 copper wire	1

A.1.7.2 SFP Modules (Access 100Mb short)

[37]   The SFP module for multi-mode 1Gbps links is GLC-GE-100FX

#	PID	Description	Qty
1)	GLC-GE-100FX=	100BASE-FX SFP for GE SFP port	1

A.1.7.3 SFP Modules (Access 1Gb short)

[38]   The SFP module for multi-mode 1Gbps links is GLC-SX-MMD

#	PID	Description	Qty
1)	GLC-SX-MMD=	1000BaseSX multimode transceiver module	1

A.1.7.4 SFP Modules (Interconnect 1Gb, , long)

[39]   The SFP module for multi-mode/singlemode 1Gbps interlinks is GLC-LH-SMD

#	PID	Description	Qty
1)	GLC-LH-SMD=	1000BASE-LX/LH SFP transceiver module, MMF/SMF	1

A.1.7.5 SFP Modules (Interconnect, 10Gb , short)

[40]   The SFP+ module for multi-mode 10Gbps links is SFP-10G-SR-S

#	PID	Description	Qty
1)	SFP-10G-SR-S=	10GBASE-SR SFP+ transceiver module multi mode	1

A.1.7.6 SFP Modules (Interconnect 10Gb, , medium)

[41]   The SFP+ module for multi-mode 10Gbps links is SFP-10G-LRM

#	PID	Description	Qty
1)	SFP-10G-LRM=	10GBASE-SR SFP+ transceiver module multimode	1

A.1.7.7 SFP Modules (Interconnect, 10Gb , long)

[42]   The SFP+ module for single-mode 10Gbps links is SFP-10G-LR-S

#	PID	Description	Qty
1)	SFP-10G-LR-S=	10GBASE-LR SFP+ transceiver module single mode	1

A.1.8 Virtual Host Server and Storage (Large)

#	Item	Minimum Requirements	Qty
1)		2U Rack Server DL380 Gen10 8SFF CTOServer	1
2)		Gen10 Intel Xeon-Platinum 8168 (2.7GHz/24-core/205W) Processor Kit	1
3)		Gen10 Intel Xeon-Platinum 8168 (2.7GHz/24-core/205W) Processor Kit	1
4)		32GB (1x32GB) Dual Rank x4 DDR4-2666 CAS-19-19-19 Registered Smart Memory Kit	6
5)		DL38X Gen10 2SFF Premium HDD Front NVMe or Front/Rear SAS/SATA Kit	1
6)		DL38X Gen10 SFF Box1/2 Cage/Backplane Kit	1
7)		Cache tier - 800GB SAS 12G Write Intensive SFF (2.5in) SC 3yr Wty Digitally Signed Firmware SSD	3
8)		300GB SAS 12G Enterprise 10K SFF (2.5in) SC 3yr Wty Digitally Signed Firmware HDD	2
9)		3.2TB SAS 12G Mixed Use SFF (2.5in) SC 3yr Wty Digitally Signed Firmware SSD	9
10)		Smart Array P408i-p SR Gen10 (8 Internal Lanes/2GB Cache) 12G SAS PCIe Plug-in Controller	1
11)		Ethernet 10Gb 2-port 562FLR-SFP+ Adapter	2
12)		96W Smart Storage Battery (up to 20 Devices) with 145mm Cable Kit	1
13)		Smart Array P816i-a SR Gen10 (16 Internal Lanes/4GB Cache/SmartCache) 12G SAS Modular Controller	1
14)		DL38X Gen10 High Performance Temperature Fan Kit	1
15)		800W Flex Slot Platinum Hot Plug Low Halogen Power Supply Kit	2
16)		2U Cable Management Arm for Easy Install Rail Kit	1
17)		2U Small Form Factor Easy Install Rail Kit	1
18)		3Y Foundation Care 24x7 wDMR SVC	1
19)	TPST	Certified and provided with SDIP-27 Level C TEMPEST Certificate (As indicated in RFQ Bidding Sheet/SSS).	1

[43]

A.1.9 Virtual Host Server and Storage (Medium)

#	Item	Minimum Requirements	Qty
1)		2U Rack Server DL380 Gen10 8SFF CTO Server	1
2)		Gen10 Intel Xeon-Gold 6148 (2.4GHz/20-core/145W) FIO Processor Kit	1
3)		Gen10 Intel Xeon-Gold 6148 (2.4GHz/20-core/145W) FIO Processor Kit	1
4)		32GB (1x32GB) Dual Rank x4 DDR4-2666 CAS-19-19-19 Registered Smart Memory Kit	6
5)		DL38X Gen10 2SFF Premium HDD Front NVMe or Front/Rear SAS/SATA Kit	1
6)		DL38X Gen10 SFF Box1/2 Cage/Backplane Kit	1
7)		400GB SAS 12G Write Intensive SFF (2.5in) SC 3yr Wty Digitally Signed Firmware SSD	2
8)		300GB SAS 12G Enterprise 10K SFF (2.5in) SC 3yr Wty Digitally Signed Firmware HDD	2
9)		1.6TB SAS 12G Mixed Use SFF (2.5in) SC 3yr Wty Digitally Signed Firmware SSD	8
10)		Smart Array P408i-p SR Gen10 (8 Internal Lanes/2GB Cache) 12G SAS PCIe Plug-in Controller	1

#	Item	Minimum Requirements	Qty
11)		96W Smart Storage Battery (up to 20 Devices) with 145mm Cable Kit	1
12)		Smart Array P816i-a SR Gen10 (16 Internal Lanes/4GB Cache/SmartCache) 12G SAS Modular Controller	1
13)		Ethernet 10Gb 2-port 562FLR-SFP+ Adapter	2
14)		DL38X Gen10 High Performance Temperature Fan Kit	1
15)		800W Flex Slot Platinum Hot Plug Low Halogen Power Supply Kit	2
16)		2U Cable Management Arm for Easy Install Rail Kit	1
17)		2U Small Form Factor Easy Install Rail Kit	1
18)		3Y Foundation Care 24x7 wDMR SVC	1
19)		DL38x Gen10 Support	1
20)	TPST	Certified and provided with SDIP-27 Level C TEMPEST Certificate (As indicated in RFQ Bidding Sheet/SSS).	1

[44]

A.1.10   Virtual Host Server and Storage (Small)

#	Item	Minimum Requirements	Qty
1)		2U Rack Server DL380 Gen10 8SFF Configure-to-order Server	1
2)		Gen10 Intel Xeon-Gold 6132 (2.7GHz/14-core/165W) FIO Processor Kit	1
3)		Gen10 Intel Xeon-Gold 6132 (2.7GHz/14-core/165W) Processor Kit	1
4)		32GB (1x32GB) Dual Rank x4 DDR4-2666 CAS-19-19-19 Registered Smart Memory Kit	1
5)		DL38X Gen10 2SFF Premium HDD Front NVMe or Front/Rear SAS/SATA Kit	4
6)		DL38X Gen10 SFF Box1/2 Cage/Backplane Kit	4
7)		400GB SAS 12G Write Intensive SFF (2.5in) SC 3yr Wty Digitally Signed Firmware SSD	1
8)		300GB SAS 12G Enterprise 10K SFF (2.5in) SC 3yr Wty Digitally Signed Firmware HDD	1
9)		Capacity tier - 1.92TB SATA 6G Mixed Use SFF (2.5in) SC 3yr Wty Digitally Signed Firmware	1
10)		Smart Array P408i-p SR Gen10 (8 Internal Lanes/2GB Cache) 12G SAS PCIe Plug-in Controller	1
11)		96W Smart Storage Battery (up to 20 Devices) with 145mm Cable Kit	2
12)		Smart Array P816i-a SR Gen10 (16 Internal Lanes/4GB Cache/SmartCache) 12G SAS Modular Controller	2
13)		Ethernet 10Gb 2-port 562FLR-SFP+ Adapter	2
14)		DL38X Gen10 High Performance Temperature Fan Kit	6
15)		800W Flex Slot Platinum Hot Plug Low Halogen Power Supply Kit	6
16)		iLO Advanced 1-server License with 3yr Support on iLO Licensed Features	1
17)		2U Cable Management Arm for Easy Install Rail Kit	1
18)		2U Small Form Factor Easy Install Rail Kit	1
19)		3Y Foundation Care 24x7 wDMR SVC	1
20)		iLO Advanced Non Blade - 3yr Support	1
21)		DL38x Gen10 Support	1
22)	TPST	Certified and provided with SDIP-27 Level C TEMPEST Certificate (As indicated in RFQ Bidding Sheet/SSS).	1

[45]

A.1.11 N/A (Intentionally Blank)

#	Item	Minimum Requirements	Qty
1)		N/A (Intentionally Blank)	0

A.1.12 Virtual Host Witness Server

#	Item	Minimum Requirements	Qty
1)		2U Rack Server DL380 Gen10 8SFF Configure-to-order Server	1
2)		Gen10 Intel Xeon-Silver 4114 (2.2GHz/10-core/85W) FIO Processor Kit	1
3)		Gen10 Intel Xeon-Silver 4114 (2.2GHz/10-core/85W) Processor Kit	1
4)		16GB (1x16GB) Single Rank x4 DDR4-2666 CAS-19-19-19 Registered Smart Memory Kit	2
5)		DL38X Gen10 Universal Media Bay Kit	1
6)		300GB SAS 12G Enterprise 10K SFF (2.5in) SC 3yr Wty Digitally Signed Firmware HDD	2
7)		96W Smart Storage Battery (up to 20 Devices) with 145mm Cable Kit	1
8)		Smart Array P408i-a SR Gen10 (8 Internal Lanes/2GB Cache) 12G SAS Modular Controller	1
9)		Ethernet 10Gb 2-port 562FLR-SFP+ Adapter	1
10)		500W Flex Slot Platinum Hot Plug Low Halogen Power Supply Kit	2
11)		iLO Advanced 1-server License with 3yr Support on iLO Licensed Features	1
12)		2U Cable Management Arm for Easy Install Rail Kit	1
13)		3Y Foundation Care 24x7 wDMR SVC	1
14)		iLO Advanced Non Blade - 3yr Support	1
15)		DL38x Gen10 Support	1
16)	TPST	Certified and provided with SDIP-27 Level C TEMPEST Certificate (As indicated in RFQ Bidding Sheet/SSS).	1

A.1.13 Physical Server (Domain Controller)

#	Item	Minimum Requirements	Qty
1)		2U Rack Server DL380 Gen10 8SFF Configure-to-order Server	1
2)		Gen10 Intel Xeon-Silver 4114 (2.2GHz/10-core/85W) FIO Processor Kit	1
3)		Gen10 Intel Xeon-Silver 4114 (2.2GHz/10-core/85W) Processor Kit	1
4)		16GB (1x16GB) Single Rank x4 DDR4-2666 CAS-19-19-19 Registered Smart Memory Kit	2
5)		DL38X Gen10 Universal Media Bay Kit	1
6)		300GB SAS 12G Enterprise 10K SFF (2.5in) SC 3yr Wty Digitally Signed Firmware HDD	2
7)		96W Smart Storage Battery (up to 20 Devices) with 145mm Cable Kit	1
8)		Smart Array P408i-a SR Gen10 (8 Internal Lanes/2GB Cache) 12G SAS Modular Controller	1
9)		Ethernet 10Gb 2-port 562FLR-SFP+ Adapter	1
10)		500W Flex Slot Platinum Hot Plug Low Halogen Power Supply Kit	2
11)		iLO Advanced 1-server License with 3yr Support on iLO Licensed Features	1
12)		2U Cable Management Arm for Easy Install Rail Kit	1
13)		3Y Foundation Care 24x7 wDMR SVC	1
14)		iLO Advanced Non Blade - 3yr Support	1
15)		DL38x Gen10 Support	1

#	Item	Minimum Requirements	Qty
16)	TPST	Certified and provided with SDIP-27 Level C TEMPEST Certificate (As indicated in RFQ Bidding Sheet/SSS).	1

[46]

A.1.14   Backup Server (Large)

#	Item	Minimum Requirements	Qty
1)		2U Rack Server DL380 Gen10 8SFF Configure-to-order Server	1
2)		Gen10 Intel Xeon-Silver 4114 (2.2GHz/10-core/85W) FIO Processor Kit	1
3)		Gen10 Intel Xeon-Silver 4114 (2.2GHz/10-core/85W) Processor Kit	1
4)		16GB (1x16GB) Single Rank x4 DDR4-2666 CAS-19-19-19 Registered Smart Memory Kit	2
5)		DL38X Gen10 Universal Media Bay Kit	1
6)		300GB SAS 12G Enterprise 10K SFF (2.5in) SC 3yr Wty Digitally Signed Firmware HDD	2
7)		12TB SAS 12G Midline 7.2K LFF (3.5in) SC 1yr Wty Helium 512e Digitally Signed Firmware HDD	8
8)		DL38X Gen10 x16/x16 Riser Kit	1
9)		Smart Array E208e-p SR Gen10 (8 External Lanes/No Cache) 12G SAS PCIe Plug-in Controller	1
10)		Ethernet 10Gb 2-port 562FLR-SFP+ Adapter	2
11)		Smart Array P408e-p SR Gen10 (8 External Lanes/4GB Cache) 12G SAS PCIe Plug-in Controller	1
12)		96W Smart Storage Battery (up to 20 Devices) with 145mm Cable Kit	1
13)		Smart Array P408i-a SR Gen10 (8 Internal Lanes/2GB Cache) 12G SAS Modular Controller	1
14)		500W Flex Slot Platinum Hot Plug Low Halogen Power Supply Kit	2
15)		iLO Advanced 1-server License with 3yr Support on iLO Licensed Features	1
16)		2U Cable Management Arm for Easy Install Rail Kit	1
17)		3Y Foundation Care 24x7 wDMR SVC	1
18)		iLO Advanced Non Blade - 3yr Support	1
19)		DL38x Gen10 Support	1
20)		D3610 Enclosure	1
21)		12TB SAS 12G Midline 7.2K LFF (3.5in) SC 1yr Wty Helium 512e Digitally Signed Firmware HDD	12
22)		External 2.0m (6ft) Mini-SAS HD 4x to Mini-SAS HD 4x Cable	2
23)		3Y Foundation Care 24x7 wDMR SVC	1
24)		D2000 Disk Enclosure Support	1
25)	TPST	Certified and provided with SDIP-27 Level C TEMPEST Certificate (As indicated in RFQ Bidding Sheet/SSS).	1

[47]

A.1.15   Backup Server (Small)

#	Item	Minimum Requirements	Qty
1)		2U Rack Server DL380 Gen10 8SFF CTO	1
2)		Gen10 Intel Xeon-Silver 4114 (2.2GHz/10-core/85W) FIO Processor Kit	1
3)		Gen10 Intel Xeon-Silver 4114 (2.2GHz/10-core/85W) Processor Kit	1
4)		16GB (1x16GB) Single Rank x4 DDR4-2666 CAS-19-19-19 Registered Smart Memory Kit	2
5)		DL38X Gen10 Universal Media Bay Kit	1

#	Item	Minimum Requirements	Qty
6)		300GB SAS 12G Enterprise 10K SFF (2.5in) SC 3yr Wty Digitally Signed Firmware HDD	2
7)		12TB SAS 12G Midline 7.2K LFF (3.5in) SC 1yr Wty Helium 512e Digitally Signed Firmware HDD	8
8)		DL38X Gen10 x16/x16 Riser Kit	1
9)		Smart Array E208e-p SR Gen10 (8 External Lanes/No Cache) 12G SAS PCIe Plug-in Controller	1
10)		Ethernet 10Gb 2-port 562FLR-SFP+ Adapter	2
11)		Smart Array P408e-p SR Gen10 (8 External Lanes/4GB Cache) 12G SAS PCIe Plug-in Controller	1
12)		96W Smart Storage Battery (up to 20 Devices) with 145mm Cable Kit	1
13)		Smart Array P408i-a SR Gen10 (8 Internal Lanes/2GB Cache) 12G SAS Modular Controller	1
14)		500W Flex Slot Platinum Hot Plug Low Halogen Power Supply Kit	2
15)		iLO Advanced 1-server License with 3yr Support on iLO Licensed Features	1
16)		2U Cable Management Arm for Easy Install Rail Kit	1
17)		3Y Foundation Care 24x7 wDMR SVC	1
18)		iLO Advanced Non Blade - 3yr Support	1
19)		DL38x Gen10 Support	1
20)	TPST	Certified and provided with SDIP-27 Level C TEMPEST Certificate (As indicated in RFQ Bidding Sheet/SSS).	1

[48]

A.1.16   GEO Datastore (10 TB, low performance)

#	Item	Minimum Requirements	Qty
1)		D3610 Enclosure	1
2)		12TB SAS 12G Midline 7.2K LFF (3.5in) SC 1yr Wty Helium 512e Digitally Signed Firmware HDD	6
3)		External 2.0m (6ft) Mini-SAS HD 4x to Mini-SAS HD 4x Cable	2
4)		3Y Foundation Care 24x7 wDMR SVC	1
5)		D2000 Disk Enclosure Support	1
6)	TPST	Certified and provided with SDIP-27 Level C TEMPEST Certificate (As indicated in RFQ Bidding Sheet/SSS).	1

[49]

A.1.17   Tape Library

#	Item	Minimum Requirements	Qty
1)		MSL4048 0-Drive Tape Library	1
2)		MSL LTO-6 Ultr 6250 SAS Drive Kit	4
3)		MSL Redundant Power Supply Kit	1
4)		3Y Foundation Care NBD Service	1
5)		MSL4048 Library Support	1
6)		1 Mini SAS HD - 4 Mini SAS FO 2M Cbl	1
7)	TPST	Certified and provided with SDIP-27 Level C TEMPEST Certificate (As indicated in RFQ Bidding Sheet/SSS).	1

[50]

A.1.18   Tape Media

#	Item	Minimum Requirements	Qty
1)		LTO-6 Ultrium 6.25TB Data Cartridge	1
2)		LTO-6 MP Non Custom Labeled 20 Pk	1

[51]

A.1.19   Virtual Loadbalancers

#	Item	Minimum Requirements	Qty
1)		Virtual-F5-LTM BEST with WAFs	1
2)		BIG-IP Virtual Edition: Local Traffic Manager 200 Mbps (v11.6.x - v16.x)	1
3)		BIG-IP Service: Standard Virtual Edition Level 1-3 (12% of List) (Version+ Only)	1
4)	TPST	Certified and provided with SDIP-27 Level C TEMPEST Certificate (As indicated in RFQ Bidding Sheet/SSS).	1

[52]

A.1.20   Firewall (IEG-C & SPN +1 Year Support)

#	Item	Minimum Requirements	Qty
1)	Brand	Palo Alto	1
2)	Model	PA-3260	1
3)	Type	Next-generation firewall	1
4)	Max throughput	10 Gbps	1
5)	HTTP throughput	8.4 Gbps	1
6)	IPSec VPN throughput	4.8 Gbps	1
7)	Max sessions	3,000,000	1
8)	New sessions per second	118,000	1
9)	Interface Modes	L3	1
10)	VLANs	802.1Q trunk with VLAN support	1
11)	Network interface	10Mbps/100Mbps/1Gbps RJ-45 port	12
12)	Network interface	10G SFP+ port	8
13)	SFP+	SFP+ short reach 10 Gb optical transceiver, SMF, duplex LC, 10GBASE-SR	8
14)	Network interface	40G QSFP+ port	4
15)	QSFP+	QSFP+ 40 Gb active optical cable assembly, 2 transceivers, 10 m of cable permanently bonded	2
16)	Management interface	10Mbps/100Mbps/1Gbps RJ-45 port	1
17)	High availability port	10G SFP+ port	1
18)	High availability SFP+	SFP+ long reach 10 Gbps optical transceiver, SMF, duplex LC, 10GBASE-LR	1
19)	High availability modes	active/active, active/passive	1
20)	Features	Threat detection software (see section A.2.22)	1
21)	Storage	240 GB SSD	1
22)	Power supply	650-watt AC or DC	1
23)	Secondary power supply	650-watt AC or DC	1
24)	Power cord	AC Power Cord (Europe), C13, CEE 7, 1.5M	2
25)	Centralized management interface	Panorama	1
26)	Rail kit	19" Standard Rack Rails	1
27)	Support	Premium annual support, 1 year	1
28)	NIAPC	Manufacturer included in NIAPC	1

#	Item	Minimum Requirements	Qty
8)	TPST	Certified and provided with SDIP-27 Level C TEMPEST Certificate (As indicated in RFQ Bidding Sheet/SSS).	1

[53]

A.1.21   Mailguard + 1 Year Support

#	Item	Minimum Requirements	Qty
1)	Brand	Nexor	1
2)	Model	Sentinel version 3.6	1
3)	Type	Hardware appliance for high assurance email guard	1
4)	Installed Software	• Sentinel Appliance Software; • Secure operating system (e.g. Red Hat Enterprise Linux); • Antivirus.	1
5)	Hardware	Gen 10 server or equivalent	1
6)	Network interface	1Gb Ethernet port RJ-45 minimum (SFP if available)	4
7)	Power supply	100-240 VAC power supply	1
8)	Secondary power supply	100-240 VAC power supply	1
9)	Power cord	AC Power Cord (Europe), C13, CEE 7, 1.5M	2
10)	Rail kit	19" standard rack	1
11)	Support	Annual support, renewable, 1 year	1
12)	NIAPC	Manufacturer and product included in NIAPC	1
13)	Certification	Common Criteria EAL 4+	1
14)	TPST	Certified and provided with SDIP-27 Level C TEMPEST Certificate (As indicated in RFQ Bidding Sheet/SSS).	1

[54]

A.1.22   NIPS License

#	Item	Minimum Requirements	Qty
1)	Brand	Palo Alto	1
2)	Model	Threat Prevention service	1
3)	Type	Network-based Intrusion Prevention System	1
4)	Max throughput	4.7 Gbps	1
5)	HTTP throughput	3.9 Gbps	1
6)	Security profiles	• Antivirus • Anti-command-and-control (spyware protection) • Anti-exploit (vulnerability protection)	1
7)	Response actions	Allow, alert, drop, reset client-side connection, reset server-side connection, reset both, block IP	1
8)	Centralized management interface	Panorama	1
9)	Installation	Installed on new firewall (See section A.2.20) or existing PFE firewall	1
10)	Licence	Annual licence	1
11)	NIAPC	Manufacturer included in NIAPC	1

[55]

A.1.23 XML-Labelling Guard + 1 Year Support

#	Item	Minimum Hardware Requirements	Qty
1)	Type	Hardware Appliance for Security Gateway, XML-Labelling Guard	1
2)	Installed Software	As specified in section 3.8.3: XML-Labelling Guard (XLG)	1
3)	Management protocols	• Keyboard, video and mouse (KVM) over Ethernet; • Command Line interface (CLI) via Secure Shell (SSH); • HTTPS web interface; • Syslog; • Network Time Protocol	1
4)	Network interface	1Gb Ethernet port SFP	4
5)	SFP	1000BaseSX multimode LC transceiver module	4
6)	Power supply	100-240 VAC power supply	1
7)	Secondary power supply	100-240 VAC power supply	1
8)	Power cord	AC Power Cord (Europe), C13, CEE 7, 1.5M	2
9)	Rail kit	19" standard rack	1
10)	Support	Annual support, renewable, 1 year	1
11)	NIAPC	Manufacturer and product included in NIAPC	1
12)	TPST	Certified and provided with SDIP-27 Level C TEMPEST Certificate (As indicated in RFQ Bidding Sheet/SSS).	1

A.1.24 N/A (Intentionally Blank)

#	Item	Minimum Requirements	Qty
1)		N/A (Intentionally Blank)	0

[56]

A.1.25 Proxy device

#	Item	Minimum Requirements	Qty
1)	Type	Secure web gateway appliance, suitable as a modern replacement for an obsolete BlueCoat 510-10 ProxySG appliance	1
2)	Features	Web gateway, content analysis, antivirus, TLS proxy, blacklist/whitelist, central management	1
3)	Management protocols	• Keyboard, video and mouse (KVM) over Ethernet; • Command Line interface (CLI) via Secure Shell (SSH); • HTTPS web interface; • Syslog; • Network Time Protocol	1
4)	Network interface	• 1Gb Ethernet port RJ-45; • including at least 2 non-bypass ports	4
5)	Performance	Concurrent users	1000
6)	Power supply	100-240 VAC power supply	1
7)	Secondary power supply	100-240 VAC power supply	1
8)	Power cord	AC Power Cord (Europe), C13, CEE 7, 1.5M	2
9)	Rail kit	19" standard rack	1
10)	Maintainability	• Patchable software, firmware, and operating system;	1

#	Item	Minimum Requirements	Qty
		• Antivirus and threat intelligence updates	
11)	Support	Annual support, hardware and software, renewable, 1 year	1
12)	TPST	Certified and provided with SDIP-27 Level C TEMPEST Certificate (As indicated in RFQ Bidding Sheet/SSS).	1

A.1.26 Racks (incl. PDU, Fans)

A.1.26.1 42U Rack

#	Item	Minimum Requirements	Qty
1)		G2 42U, 19 Inch Rack	1
2)		Advanced Series Rack Tie Down Kit	1
3)		G2 Basic 7.3kVA/60309 3-wire 32A/230V Outlets (36) C13 (6) C19/Vertical INTL PDU	2
4)		G2 Rack Grounding Kit	1
5)		G2 Rack Baying Kit	1
6)		42U 600mmx1200mm G2 Kitted Advanced Pallet Rack with Side Panels and Baying	1
7)		1U 10-pack Black Universal Filler Panel	3
8)		Rack Cable Management Kit	1
9)		• Net usage space shall be four (4) pole 42 RU [Rack Unit = 1,75"] high and 19" mounting distance (482,6 mm) with square holes on the mounting poles / frames for standard cage nuts; • Mounting poles / frames shall be adjustable from front to rear, with this adjustment distance from front door shall be optimised to enable correct bending radius for fibre optical cabling • The Contractor shall deliver standard mounting screws and square cage nuts; • Communication enclosures shall have two (2) solid lockable side panels – equipped with safety lock; • Front door: single pane glazed safety glass – lockable (security lock) equipped with hinges min. 130☐ hinge; • Rear door: Sheet steel door, including min. 130° hinge, security lock – dual door at the rear is also acceptable to save space at the back; • Roof plate, with cable entry and covered cut-out for fan mounting plate; • Power distribution inside the communication enclosure; • Active Fan attached to the PDU to force air cooling with power switch; • Where it is possible the Contractor shall fix the communication enclosure to the ground • The communication enclosure shall be equipped with vertical and horizontal cable guides • For heavy front mounted equipment (UPS / switch) the front and rear frames / poles shall be connected with supporting elements; and • The communication racks shall be deep enough to host the UPS equipment.	

[57]

A.1.26.2   Rack PDU

#	Item	Minimum Requirements	Qty
1)		Knürr DI-STRIP Compact 16A (1) C20 inlet / (8) Schuko CEE 7/4 outlets	4
2)		Knürr DI-STRIP Compact 16A (1) Schuko CEE7/7 inlet / (8) Schuko CEE 7/4 outlets	2

A.1.27   Rack Peripherals (KVM, KVM Switch)

#	Item	Minimum Requirements	Qty
1)		KVM Console	1
2)		KVM USB Adapter	16
3)		LCD 8500 1U Console INTL Kit	1
4)		0x2x16 G3 KVM Console Switch	1
5)	TPST	Certified and provided with SDIP-27 Level C TEMPEST Certificate (As indicated in RFQ Bidding Sheet/SSS).	1

[58]

A.1.28   Rack UPS (Large, server rooms)

A.1.28.1   Rack UPS – 6kVA

#	Item	Minimum Requirements	Qty
1)		Rack UPS - 6kVA	1
2)		APC Smart-UPS SRT 6000VA RM 230V Includes: CD with software , Installation guide , Rack Mounting brackets , Rack mounting hardware , Rack Mounting support rails , Temperature Probe , USB cable , Warranty card , Web/SNMP Management Card (RJ-45 10/100 Base-T)	1
3)	TPST	Certified and provided with SDIP-27 Level C TEMPEST Certificate (As indicated in RFQ Bidding Sheet/SSS).	1

[59]

A.1.28.2   Rack UPS – 8kVA

#	Item	Minimum Requirements	Qty
1)		Rack UPS - 8kVA	1
2)		APC Smart-UPS SRT 8000VA RM 230V Includes: CD with software , Installation guide , Rack Mounting brackets , Rack mounting hardware , Rack Mounting support rails , Temperature Probe , USB cable , Warranty card , Web/SNMP Management Card (RJ-45 10/100 Base-T)	1
3)	TPST	Certified and provided with SDIP-27 Level C TEMPEST Certificate (As indicated in RFQ Bidding Sheet/SSS).	1

[60]

A.1.29   Rack UPS (Small, equipment rooms)

#	Item	Minimum Requirements	Qty
1)		Rack UPS - 3kVA	1
2)		APC Smart-UPS SRT 3000VA RM 230V w/Network Card Includes: CD with software , Documentation CD , Installation guide , Network	1

#	Item	Minimum Requirements	Qty
		Management Card , Rack Mounting brackets , Rack Mounting support rails , USB cable , Warranty card	
3)	TPST	Certified and provided with SDIP-27 Level C TEMPEST Certificate (As indicated in RFQ Bidding Sheet/SSS).	1

[61]

A.1.30   Patch cables (LC-LC)

#	Item	Minimum Requirements	Qty
1)		Multi-mode fiber optic cable, 50/125 mikrons, connector LC/LC, class OM3 or OM4, length 5m,	1

A.1.31   A4 Printer

#	Item	Minimum Requirements	Qty
1)		Color LaserJet Pro M454dn A4 Colour Network Printer	1
2)		Color: Up to 600 x 600 dpi	
3)		2 x trays supporting A4, up to 300 sheets	
4)		PCL 6, PCL 5c, postscript level 3 emulation, PDF, URF	
5)		Hi-Speed USB 2.0 port, Gigabit Ethernet 10/100/1000T, TCP/IP/SMP,LPD,SNMP support	
6)	Features	- Auto duplex unit - PIN Code print job access - Pull printing	
7)	Media Converter	Media Converter to 1000Base-SX: Allied Telesis AT-MMC2000/LC Converter	1
8)	Media Converter	Media Converter to 100Base-SX: Allied Telesis AT-MMC200/SC Converter	1
9)	TPST	Certified and provided with SDIP-27 Level B/C TEMPEST Certificate (As indicated in RFQ Bidding Sheet/SSS).	1

[62]

A.1.32   A3 Printer

#	Item	Minimum Requirements	Qty
1)	Model	Color LaserJet Enterprise flow MFP M880z	1
2)	Type	Multi-Function Device – printing, scanning, copying	
3)	Scan resolution	Colour: Up to 600 x 600 dpi	
4)	Printing and scanning size	Printing: A3	
5)	Print resolution	Color: Up to 1200x1200 optimized dpi	1

#	Item	Minimum Requirements	Qty
6)	Paper capacity	3 x trays supporting A3 and A4, 500 sheets each	
7)	PDL	PCL5E/C, PCL6, XPS, PostScript	
8)	Fonts	Adobe PostScript 3, Adobe PDF 1.7, TIFF, JPEG, CALS G4, PCL 3 GUI, GL/2 and RTL	
9)	Network	1 x Gigabit Ethernet 10/100/1000T; TCP/IP/SMP,LPD,SNMP support	
10)	Features	- Single pass - Scan to email - Multi-copy feature - Auto duplex - Access Control at Printer	
11)	Media Converter	- Media Converter to 1000Base-SX: Allied Telesis AT-MMC2000/LC Converter	
12)	Media Converter	- Media Converter to 100Base-SX: Allied Telesis AT-MMC200/SC Converter	
10)	TPST	Certified and provided with SDIP-27 Level B/C TEMPEST Certificate (As indicated in RFQ Bidding Sheet/SSS).	1

[63]

A.1.33   A3 Printer

#	Item	Minimum Requirements	Qty
1)	Model	Color LaserJet Enterprise flow MFP M880z	1
2)	Type	Multi-Function Device – printing, scanning, copying	
3)	Scan resolution	Colour: Up to 600 x 600 dpi	
4)	Printing and scanning size	Printing: A3	
5)	Print resolution	Color: Up to 1200x1200 optimized dpi	
6)	Paper capacity	3 x trays supporting A3 and A4, 500 sheets each	
7)	PDL	PCL5E/C, PCL6, XPS, PostScript	
8)	Fonts	Adobe PostScript 3, Adobe PDF 1.7, TIFF, JPEG, CALS G4, PCL 3 GUI, GL/2 and RTL	
9)	Network	1 x Gigabit Ethernet 10/100/1000T; TCP/IP/SMP,LPD,SNMP support	
10)	Features	- Single pass - Scan to email - Multi-copy feature - Auto duplex - Access Control at Printer	
11)	Media Converter	- Media Converter to 1000Base-SX: Allied Telesis AT-MMC2000/LC Converter	1
12)	Media Converter	- Media Converter to 100Base-SX: Allied Telesis AT-MMC200/SC Converter	1
11)	TPST	Certified and provided with SDIP-27 Level B/C TEMPEST Certificate (As indicated in RFQ Bidding Sheet/SSS).	1

[64]

A.1.34   A0 Plotter/Scanner Combi Device + Media Converter

#	Item	Minimum Requirements	Qty
1)	Model	DesignJet T830 A0 MFP Plotter	1
2)	Printing size	A0 Plotter/Scanner combination	
3)	Print resolution	Color: Up to 2400x1200 optimized dpi	
4)	Paper capacity	Two automatic roll feeds; smart roll-switching	
5)	PDL	Adobe PostScript 3, Adobe PDF 1.7, TIFF, JPEG, CALS G4, PCL 3 GUI, GL/2 and RTL	
6)	Fonts	Adobe PostScript 3, Adobe PDF 1.7, TIFF, JPEG, CALS G4, PCL 3 GUI, GL/2 and RTL	
7)	Speed	60 m2/hr (650 ft2/hr)	
8)	Interfaces	Gigabit Ethernet (1000BaseT), Hi-speed USB 2.0 certified	
9)	Features	Two automatic roll feeds; smart roll-switching, sheet feed, media output bin, automatic cutter	
10)	Media Converter	Media Converter to 1000Base-SX: Allied Telesis AT-MMC2000/LC Converter	
11)	Media Converter	Media Converter to 100Base-SX: Allied Telesis AT-MMC200/SC Converter	
12)	TPST	Certified and provided with SDIP-27 Level B/C TEMPEST Certificate (As indicated in RFQ Bidding Sheet/SSS).	1

[65]

A.1.35   A0 Plotter + Media Converter

#	Item	Minimum Requirements	Qty
1)	Model	DesignJet T520 A1 Plotter	1
2)	Printing size	A1 Plotter, supporting 11 to 24 inch	
3)	Print resolution	Color: Up to 2400x1200 optimized dpi	
4)	Paper capacity	2 automatic roll feeds/smart roll switching	
5)	PDL	GL/2, RTL, JPEG, CALS G4	
6)	Fonts	PCL/PS	
7)	Speed	70 A1 prints/hour	
8)	Interfaces	Fast Ethernet (100Base-T), High speed USB 2.0 certified	
9)	Features	Finished output handling; Sheet feed, roll feed, input tray, media bin, automatic cutter	
10)	Media Converter	Media Converter to 1000Base-SX: Allied Telesis AT-MMC2000/LC Converter	
11)	Media Converter	Media Converter to 100Base-SX: Allied Telesis AT-MMC200/SC Converter	
13)	TPST	Certified and provided with SDIP-27 Level B/C TEMPEST Certificate (As indicated in RFQ Bidding Sheet/SSS).	1

[66]

A.1.36   Digital Sender

#	Item	Minimum Requirements	Qty
1)	Model	Scanjet Enterprise Flow N9120 fn2 Flatbed & ADF scanner 600 x 600DPI A3	1
2)	TPST	Certified and provided with SDIP-27 Level B/C TEMPEST Certificate (As indicated in RFQ Bidding Sheet/SSS).	1

[67]

A.1.37   Projector (Large, 5000 Lumens)

#	Item	Minimum Requirements	Qty
1)	Video modes	480i, 480p, 576i, 567p, 720p, 1080i, 1080p	1
2)	ANSI Lumens	5000 lm	
3)	Contrast Ratio	Full On Full Off standard 3,000,000:1	
4)	Light source	Laser diode	
5)	Screen Size - Diagonal	77 cm - 762 cm	
6)	Keystone correction	Horizontal+/- 30 degrees Vertical +/- 30 degrees	
7)	Mounting	Ceiling mounting kit	
8)	KVM	HDMI KVM (1 output, 4 inputs)	
9)	TPST	Certified and provided with SDIP-27 Level B/C TEMPEST Certificate (As indicated in RFQ Bidding Sheet/SSS).	1

A.1.38   A4 Printer

#	Item	Minimum Requirements	Qty
1)		Color LaserJet Pro M454dn A4 Colour Network Printer	1
2)		Color: Up to 600 x 600 dpi	
3)		2 x trays supporting A4, up to 300 sheets	
4)		PCL 6, PCL 5c, postscript level 3 emulation, PDF, URF	
5)		Hi-Speed USB 2.0 port, Gigabit Ethernet 10/100/1000T, TCP/IP/SMP,LPD,SNMP support	
6)	Features	- Auto duplex unit - PIN Code print job access - Pull printing	
7)	Media Converter	Media Converter to 1000Base-SX: Allied Telesis AT-MMC2000/LC Converter	1
8)	Media Converter	Media Converter to 100Base-SX: Allied Telesis AT-MMC200/SC Converter	1
9)	TPST	Certified and provided with SDIP-27 Level B/C TEMPEST Certificate (As indicated in RFQ Bidding Sheet/SSS).	1

[68]

A.1.39   Projector (Medium, 3000-5000 Lumens)

#	Item	Minimum Requirements	Qty
1)	Video modes	480/60i, 576/50i, 480/60p, 576/50p, 720/60p, 720/50p, 1080/60i, 1080/50i	1
2)	ANSI Lumens	4200 lm	
3)	Contrast Ratio	Contrast ratio (full white / full black) 500000:1	
4)	Light source	Laser diode	
5)	Screen Size - Diagonal	40" to 600" (1.02 m to 15.24 m)	
6)	Keystone correction	Horizontal+/- 30 degrees Vertical +/- 30 degrees	
7)	Mounting	Ceiling mounting kit	1
8)	TPST	Certified and provided with SDIP-27 Level B/C TEMPEST Certificate (As indicated in RFQ Bidding Sheet/SSS).	1

A.1.40   Projectors (small, portable)

#	Item	Minimum Requirements	Qty
1)	Video modes	480p, 720p, 1080i, 1080p, 480i, 576i, 576p	1
2)	ANSI Lumens	3800 lm	
3)	Contrast Ratio	2,200:1 Typical (Full On/Full Off) 10,000:1 High Contrast Mode	
4)	Audio	Built-in Multimedia Speaker: 1x 10W	
5)	Screen Size - Diagonal	0.78m~7.81m (30.7"~307.5")	
6)	Projection Distance	1.2m - 10.0m (3.94 ft - 32.81 ft)	
7)	Mounting	Ceiling mounting kit	1
8)	TPST	Certified and provided with SDIP-27 Level B/C TEMPEST Certificate (As indicated in RFQ Bidding Sheet/SSS).	1

A.1.41   External Media (GIS CW)

#	Item	Minimum Requirements	Qty
1)	Brand	Seagate	1
2)	Model	Backup Plus Hub 8 TB	
3)	Type	Hard drive - external (portable)	
4)	Capacity	Min 8TB,	

#	Item	Minimum Requirements	Qty
5)	Interface	USB 3.x Port	
6)	Features	Built-in USB hub, automatic backup, NTFS formatted, cloud backup	
7)	Interface Transfer Rate	5.0 Gbps (USB 3.0)	
8)	Max Data Transfer Rate	160 MB/s	
9)	Power	1 x AC Power Adapter (EU) 1 x AC Power Cord 1 x USB 3 Cable	
10)	TPST	Certified and provided with SDIP-27 Level B/C TEMPEST Certificate (As indicated in RFQ Bidding Sheet/SSS).	1

A.1.42 Media Converter Module

#	Item	Minimum Requirements	
1)	Brand	Black Box	
2)	Model	10BASE-T/100BASE-TX to 1000BASE-X SFP Media Converter (LMC1017AE)	
3)	Feature	Auto-negociate, UTP full & half-duplex, Jumbo Frames,	
4)	SFP	Blackbox SFP, 155-Mbps, Fiber Extended Diagnostics, 850-nm MM LC, 2KM (LFP401)	
5)	TPST	Certified and provided with SDIP-27 Level B/C TEMPEST Certificate (As indicated in RFQ Bidding Sheet/SSS).	1

A.1.43 Media Converter SFP 155-Mbps LC

#	Item	Minimum Requirements	
1)	Brand	Black Box	
2)	SFP	Blackbox SFP, 155-Mbps, Fiber Extended Diagnostics, 850-nm MM LC, 2KM (LFP401)	1

A.1.44 Media Converter SFP 1250-Mbps LC

#	Item	Minimum Requirements	
1)	Brand	Black Box	
2)	SFP	Blackbox SFP, 1250-Mbps, Extended Diagnostics, 850-nm MM LC, 550m (LFP411)	1

A.1.45 Media Converter Wallmount Bracket

#	Item	Minimum Requirements	
1)	Brand	Black Box	
2)	Bracket	Media Converter Wallmount Bracket (LMC206-WALL)	1

[69]

A.1.46 Laptop (Windows)

#	Item	Minimum Requirements	
1)	Microsoft Licences	MS Windows 10 Pro OEM 64bit no-media	
2)	Processor	Intel Core i5 Cores: 4 Threads: 8	
3)	Security	Trusted Platform Module (TPM) 2.0 chip on the motherboard AES New Instructions (AES-NI), SecureKey, BIOS Guard, OS Guard or equivalent PnP and BIOS setup/boot password/system configuration protection	
4)	Power management	Support for Windows InstantGo / Connected Standby, Speed Shift Technology	
5)	Remote management	"UEFI Enabled, supports Intel vPro Out of Band Management Technology"	
6)	Memory	16GB, expandable to 32GB	
7)	Local storage	Solid State capacity: 240 GB, performance: 540MB/sec sequential read and 490MB/sec sequential write, durability: 72TBW, supported functions: TCG Opal, IEEE-1667, FDE AES-256, HIPM+DIPM and DevSleep	
8)	GPU	Intel® Integrated UHD Graphics 620 Performance: at least TO BE CONFIRMED @ 1024x600 in ComputeMark v2.1; USB Type-C 3.1 Gen 2 port (Thunderbolt) or HDMI 1.4a port output for external display;Wireless Display / Miracast support for up to 1080p30	
9)	Screen Form Factor	14" diagonal size; 1920 x 1080 Full HD; 10-point multi-touch screen; Contrast 1000:1 Brightness 300 nits (auto adjustable); sRGB coverage of >=70% or CIE1931 value of >=72%	
10)	Keyboard	US International QWERTY keyboard, backlit	
11)	Touchpad	Touch pad with multi-touch support Compatible with Windows Precision Touchpad Implementation	
12)	NIC	RJ45 or PXE enabled adapter included	
13)	Ports	1x USB Type-C 3.1 Gen 2 port (Thunderbolt) 2x USB Type-A 3.1 Gen 1 ports	
14)	Wi-Fi	Intel IEEE 802.11 Dual-Band Wireless-AC 9560 Wi-Fi (vPro)	
15)	Additional Features	Integrated Webcam Integrated Microphone Array (dual microphone with noise cancellation)	

#	Item	Minimum Requirements	
		Bluetooth 5.0	
		Integrated Smartcard reader (PIV compliant)	
		TRRS 3.5mm mini-jack connector	
16)	Appearance	Black colour	
17)	Case	1x Notebook sleeve	
18)	Power	1x Power adapter and cord (auto sensing 110/230V) 1x USB – C Power Adapter Plus - 65W (Power-In Port: AC in, Power-Out Port: 1 x DC out USB-C)	
19)	Power consumption	Up to 90W	
20)	Lock	Lock socket	
21)	TPST	Certified and provided with SDIP-27 Level B/C TEMPEST Certificate (As indicated in RFQ Bidding Sheet/SSS).	1

[88]

A.1.47 Rugged Notebook

#	Item	Minimum Requirements	
1)	Brand	Black Box	
2)	Bracket	Media Converter Wallmount Bracket (LMC206-WALL)	
3)	Performance	BAPCo MobileMark 2014, Office Productivity of 1409 BAPCo MobileMark 2014; Battery life of 1393	
4)	Microsoft Licences	MS Windows 10 Pro OEM 64bit no-media	
5)	Processor	Intel Core i7-8650U Cores: 4 Threads: 8	
6)	Security	Trusted Platform Module (TPM) 2.0 chip on the motherboard. AES New Instructions (AES-NI). SecureKey, BIOS Guard, OS Guard or equivalent. PnP and BIOS setup/boot password/system configuration protection	
7)	Power management	Support for Windows InstantGo / Connected Standby, Speed Shift Technology	
8)	Remote management	Supports Intel vPro Out of Band Management Technology	
9)	Memory	16GB, expandable to 32GB	
10)	Local storage	256GB PCIe NVMe Class 40 Opal 2.0 Self Encrypting Solid State Drive	
11)	GPU	Intel UHD 620 graphics + AMD Radeon RX540 graphics 128 Bit, Display Port and HDMI 1.4 video output for external display (native)	
12)	Screen Form Factor	14" diagonal size; 1920 x 1080 FHD; 10-point multi-touch screen; Contrast 1500:1; Brightness 1000 nits OV (outdoor viewable); sRGB coverage of >=70%.	
13)	Docking Station	Laptop should be able to use the docking station described below.	
14)	Keyboard	US International QWERTY keyboard, backlit	
15)	Touchpad	Touch pad with multi-touch support Compatible with Windows Precision Touchpad Implementation	
16)	NIC	1000Base-T Gigabit Ethernet (IEEE 802.3-2015) RJ45; Supports PXE	
17)	Ports	3x USB 3.0 Type A,	

#	Item	Minimum Requirements	
		1x USB 3.0 Type C, 1x RS-232 serial port 1x RJ-45 gigabit Ethernet network connector 1x HDMI 1x Display Port 1x Universal Audio Jack	
18)	Wi-Fi	IEEE 802.11 n/ac, Intel Wireless Dualband Card 8260	
19)	Additional Features	Integrated Webcam Integrated Microphone Array (dual microphone with noise cancellation) Bluetooth 4.2 Integrated Smartcard reader (PIV compliant) TRRS 3.5mm mini-jack connector	
20)	Appearance	Black colour	
21)	Power	1x Power adapter and cord (auto sensing 110/230V) 1x Dell USB-C Power Adapter Plus - 65W "	
22)	Batteries	Onboard Batteries: 2x 3 Cell 51Whr ExpressCharge capable batteries. Additional Batteries: 2x 3 Cell 51Whr ExpressCharge capable batteries.	
23)	Regulatory and environmental	MIL-STD-810G testing: Transit drop (72",60",48"; single unit; 78 drops), operating drop (36"), blowing rain, blowing dust, blowing sand, vibration, functional shock, humidity, salt fog (with rubberized keyboard), altitude, explosive atmosphere, solar radiation, thermal extremes, thermal shock, freeze/thaw, tactical standby to operational. Operating thermal range: -20°F to 145°F (-29°C to 63°C); Non-operating range: -60°F to 160°F (-51°C to 71°C) IEC 60529 ingress protection: IP65 (dust-tight, protected against pressurized water)	
24)	Power consumption	Up to 90W	
25)	Lock	Noble lock socket	
26)	TPST	Certified and provided with SDIP-27 Level B/C TEMPEST Certificate (As indicated in RFQ Bidding Sheet/SSS).	1

[89]

A.1.48   Laptop (MacBook)

#	Item	Minimum Requirements	
1)	Laptop	Apple MacBook Pro 16"	
2)	Display	• Retina display • 16‑inch (diagonal) LED‑backlit display with IPS technology • 3072‑by‑1920 native resolution at 226 ppi • 500 nits brightness	
3)	Operating system	• macOS Catalina	
4)	Processor	• 2.6GHz 6‑core Intel Core i7, up to 4.5GHz TB, 2MB L3 cache	
5)	Charging and Expansion	• Four Thunderbolt 3 (USB-C) ports with support for: Charging, • DisplayPort, Thunderbolt (up to 40Gb/s), • USB 3.1 Gen 2 (up to 10Gb/s).	
6)	Memory	• 16GB of 2666MHz DDR4 onboard memory	
7)	Local storage	• 512GB SSD	
8)	Graphics	• AMD Radeon Pro 5300M with 4GB of GDDR6 memory and automatic graphics switching	

#	Item	Minimum Requirements	
9)	Keyboard and Trackpad	• Full-size backlit Magic Keyboard with: • 65 (U.S.) or 66 (ISO) keys including 4 arrow keys • Touch Bar	
10)	Wi-Fi	• Wi‑Fi, 802.11ac Wi‑Fi wireless networking • IEEE 802.11a/b/g/n compatible • Bluetooth 5.0 wireless technology	
11)	Additional Features	• Camera: 720p FaceTime HD camera • Thunderbolt 3 digital video output • Audio: High‑fidelity six‑speaker system • Studio‑quality three-mic array • 3.5 mm headphone jack	
12)	Appearance	• Space Grey	
13)	Size and Weight	• 0.64 inch (1.62 cm) H x 14.09 inches (35.79 cm) W x 9.68 inches (24.59 cm) D • Weight: 4.3 pounds (2.0 kg)	
14)	Battery and Power	• Built‑in 100‑watt‑hour lithium‑polymer battery • 96W USB‑C Power Adapter (100V-240V AC at 50/60Hz) • USB-C Charge Cable (2m)	
15)	Warranty & Support	• 2 Years manufacturer warranty & support.	
16)	TPST	Certified and provided with SDIP-27 Level B/C TEMPEST Certificate (As indicated in RFQ Bidding Sheet/SSS).	1

[90]

A.1.49   Symantec Mail protection (license per mailbox)

#	Item	Minimum Software Requirements	Qty
1)	Type	Software, Mail Security for MS Exchange Antivirus Windows, Standard License	
2)	Features	Schedulable consolidated reporting New options for handling unscannable files Improved console scalability New content filtering template for US Social Security Numbers to protect against data loss	
3)	Superior Protection	•Upgraded antispam and antimalware components leveraging Symantec latest protection techniques •Ability to scan messages in transit or on the mailbox to protect against email borne threats •Powered by Premium AntiSpam, stopping 99 percent of spam with less than one in 1 million false positives •Rapid release definitions and advanced heuristic technologies provide immediate protection •Advanced content filtering protects sensitive information using pre-defined policies, regular expressions, attachment criteria, true file typing, and more. Microsoft Active Directory® based enforcement simplifies policy management	
4)	Flexible and Easy to Use Management	•Initial setup can be completed within 10 minutes with no requirements for tuning, allow listing, or block listing •Management console provides remote installation, centralized server group policy configuration, notifications, alerts, and schedulable consolidated reporting	

#	Item	Minimum Software Requirements	Qty
		•Support for Microsoft Exchange Database Availability Group, along with Microsoft and Veritas® cluster servers in Exchange 2007, minimizes downtime and simplifies maintenance •Integration with Microsoft Systems Center Operations Manager enables end-to-end monitoring of your IT environment	
5)	Optimized for Exchange	• Flexible, real-time, scheduled, and manual scanning provides efficient protection •In-memory scanning and effective multi-threading provides superior performance •Edge and hub focused scanning leverages anti-virus stamping to eliminate redundant scanning and minimize impact to mail store •Supports Microsoft Exchange 2007, 2010, 2013, Microsoft Hosted Exchange, 64-bit Windows, VMware®, and Microsoft Hyper-V® Virtualized environments	

[91]

A.1.50 Veeam Backup & Replication Enterprise PLUS for VMware

#	Item	Minimum Software Requirements	Qty
1)	Type	Software, Veeam Backup & Replication Enterprise PLUS for VMware – Public Sector	
2)	Backup	Application-aware, image-based backups VeeamZIP NAS Backup Veeam Cloud Tier ROBO Guest Interaction Proxy Back I/O control Backup from Storage Snapshots Primary Snapshot Orchestration Support for Nutanix AHV v2 Proxy	
3)	Storing backups	Built-in deduplication, compression and swap exclusion BitLooker™ & file-selective, image-level processing Backup Copy jobs End-to-end encryption Native tape support Veeam Cloud Connect Backup Proxy affinity Per-VM backup files for deduplicating storage Scale-out Backup Repository Built-in WAN Acceleration Veeam Plug-in for Oracle RMAN & SAP HANA	
4)	Replication	Image-based VM replication Assisted failover and failback Replication from a backup Planned failover Veeam Cloud Connect Replication 1-Click failover orchestration	
5)	Entire VM Recovery	Full VM recovery Instant VM Recovery VM file and virtual disk recovery Direct Restore to AWS, Microsoft Azure, Azure Stack	
6)	File level Recovery	Instant File-Level Recovery	

#	Item	Minimum Software Requirements	Qty
7)	Item level Recovery	Veeam Explorer™ for Storage Snapshots Veeam Explorer for Microsoft Active Directory Veeam Explorer for Microsoft Exchange Veeam Explorer for Microsoft SQL Server Veeam Explorer for Microsoft SharePoint Veeam Explorer for Oracle	
8)	Self-Service	1-Click File and VM recovery portal for help desk operators Microsoft Exchange item recovery portal for help desk operators Database recovery portal for Microsoft SQL DBs Database recovery portal for Oracle DBs Self-service file restore portal Recovery delegation	
9)	Veeam DataLabs	Secure Restore SureBackup SureReplica Staged Restore On-Demand Sandbox On-Demand Sandbox for Storage Snapshots	
10)	Management	Support for VMware vSphere and Microsoft Hyper-V Built-in management for Veeam Agents vSphere Web Client Plug-ins Standalone console Guest file system indexing vCloud Director support Veeam Backup Enterprise Manager — Centralized Management Web UI Role-Based Access Control (RBAC)	
11)	Other capabilities	Multiple storage access options Changed block traking File Manager Quick Migration Task Automation	

A.1.51   SAFECOM Enterprise Server License (unlimited servers)

#	Item	Minimum Software Requirements	Qty
1)	Type	Software, SAFECOM Enterprise Server License	
2)	Authentication	Users have to authenticate themselves when they log-in at the device. Authentication is when the SafeCom Server identifies a user as a recognized and approved user of the system and output device. Authentication protects against misuse and unauthorized use of company MFPs and printers.	
3)	Hardware integration	SafeCom supports two new secure card readers from Kofax, including the Kofax Ethernet Card Reader and the Kofax Micro Card Reader. Both card readers offer the same enhanced security with the added benefit of a flexible design that allows for a simpler installation and deployment.	
4)	Secure pull print	Send your documents to the SafeCom printer server and securely pick up your documents from any device, at any time.	
5)	Document encryption	With document encryption, protect your documents and data from being intercepted while traveling over the network.	

#	Item	Minimum Software Requirements	Qty
6)	Higher security	SafeCom utilizes industry standard TLS 1.2 encryption for secure communication between different SafeCom components for added security.	
7)	High availability	SafeCom can be configured and adapted to any print environment, whether in small or large and is resistant to network or server outages—users can continue to be productive even while network or server outages are present.	
8)	Tracking, reporting and analysis	Tracking and standard reporting capabilities provides a clear overview of your company's print, copy, scan, fax and e-mail activities, usage behavior and costs.	
9)	Rule-based printing	Enables organizations to implement printing rules in accordance with company print policies. This helps with saving toner and paper on specified types of document and applications.	
10)	Mobile print	Users have different methods of submitting jobs through the mobile solution, including the mobile app, email submission and web submission.	
11)			

[92]

[93]

A.1.52   SAFECOM Software Maintenance & Support, 1 year

#	Item	Minimum Software Requirements	Qty
1)	Type	Software, SAFECOM Software Maintenance & Support	

[94]

A.1.53   McAfee DLP License

#	Item	Minimum Software Requirements	Qty
1)	Type	Software, McAfee DLP License	
2)	Dynamic Application Containment	Defend against ransomware and greyware by securing endpoints that are used as entry points for attacks.	
3)	Antimalware Protection	Our antimalware engine is continually updated by McAfee Global Threat Intelligence and works across multiple operating systems.	
4)	Proactive Web Security	Ensure safe browsing with web protection and filtering for endpoints.	
5)	Security modules	• **Threat Prevention** — Prevents threats from accessing systems, scans files automatically when they are accessed, and runs targeted scans for malware on client systems. • **Firewall** — Monitors communication between the computer and resources on the network and the Internet. Intercepts suspicious communications. • **Web Control** — Monitors web searching and browsing activity on client systems and blocks websites and downloads based on safety rating and content. • **Adaptive Threat Protection** — Analyzes content from your enterprise and decides how to respond based on file reputation, rules, and reputation thresholds. Adaptive Threat Protection is an optional Endpoint Security module.	

#	Item	Minimum Software Requirements	Qty
6)	Rollback Remediation	Automatically reverse malicious actions made by threats by returning them to their previous healthy state to keep your systems and users productive.	
7)	Machine Learning Analysis	Detect evasive zero-day threats in near real time by examining how they look and behave.	
8)	Centralized Management	The McAfee ePolicy Orchestrator console provides greater visibility, simplifies operations, unifies security, and reduces costs.	
9)	Last Modified	Displays the date and time stamp of the last changes to the settings.	
10)	Default Evidence Storage	Specifies the UNC path to the evidence storage folder. You can use the local system account (McAfee DLP Endpoint for Windows and McAfee DLP Discover). You can specify a user name and password to copy evidence.	
11)	Shared Password	Specifies the override password for uninstalling the software, removing files from quarantine, encrypting evidence, and temporary client bypass.	

[95]

A.1.54   iPhone 11 Pro Max

[96]   The equipment shall meet the following prerequisites on the procurement process for any new iPhone devices that have to be enrolled into the Mobility solution:

- Devices have to be purchased directly from Apple or Apple Authorized Resellers / Carrier that are participating on the Apple Device Enrolment Program. Details about the Apple DEP here: http://www.apple.com/business/dep

- The devices have to be assigned by the supplier to the NATO DEP ID: 927338

- The supplier will provide their DEP ID for NATO to authorize the phones in the Apple DEP portal.

#	Item	Minimum Requirements	
1)	Finish	Space Grey	
2)	Capacity	128GB	
3)	Size and Weight	• Height: 6.22 inches (158.0 mm) • Width: 3.06 inches 77.8 mm) • Depth: 0.32 inch (8.1 mm) • Weight: 7.97 ounces (226 grams)	
4)	Display	• Super Retina XDR display • 6.5‑inch (diagonal) all‑screen OLED Multi‑Touch display • HDR display • 2688‑by‑1242-pixel resolution at 458 ppi • 2,000,000:1 contrast ratio (typical)	
5)	Splash, Water, and Dust Resistant	• Rated IP68 (maximum depth of 4 meters up to 30 minutes) under IEC standard 60529	
6)	Chip	• A13 Bionic chip • Third‑generation Neural Engine	
7)	Camera	• Triple 12MP Ultra Wide, Wide, and Telephoto cameras • Ultra Wide: ƒ/2.4 aperture and 120° field of view	
8)	Video Recording	• 4K video recording at 24 fps, 30 fps, or 60 fps	

#	Item	Minimum Requirements	
		• 1080p HD video recording at 30 fps or 60 fps	
9)	TrueDepth Camera	• 12MP camera • ƒ/2.2 aperture	
10)	Face ID	• Enabled by TrueDepth camera for facial recognition	
11)	Cellular and Wireless	Model A2160* • FDD‑LTE (Bands 1, 2, 3, 4, 5, 7, 8, 12, 13, 14, 17, 18, 19, 20, 25, 26, 29, 30, 66, 71) • TD‑LTE (Bands 34, 38, 39, 40, 41, 42, 46, 48) • CDMA EV‑DO Rev. A (800, 1900 MHz) • UMTS/HSPA+/DC‑HSDPA (850, 900, 1700/2100, 1900, 2100 MHz) • GSM/EDGE (850, 900, 1800, 1900 MHz) Model A2161* •	
12)	External Buttons and Connectors	• Volume up/down • Ring/Silent switch • Side button • Built‑in stereo speaker • Built‑in microphone • Lightning connector • Built‑in microphones • Built‑in stereo speaker	
13)	Power and Battery	• Lasts up to 4 hours longer than iPhone XS • 18W adapter included • Built-in rechargeable lithium-ion battery • Wireless charging (works with Qi chargers10) • Charging via USB to computer system or power adapter Fast-charge capable: • Up to 50% charge in around 30 minutes with 18W adapter or higher	
14)	Sensors	• Face ID • Barometer • Three‑axis gyro • Accelerometer • Proximity sensor • Ambient light sensor	
15)	Operating System	• iOS 13 • iOS is the world's most personal and secure mobile operating system, packed with powerful features and designed to protect your privacy.	
16)	Headphones	EarPods with Lightning Connector	
17)	SIM Card	• Dual SIM (nano‑SIM and eSIM) • iPhone 11 Pro and iPhone 11 Pro Max are not compatible with existing micro‑SIM cards.	
18)	Rating for Hearing Aids	M3, T4	
19)	Environmental Requirements	• Operating ambient temperature: 32° to 95° F (0° to 35° C) • Nonoperating temperature: −4° to 113° F (−20° to 45° C) • Relative humidity: 5% to 95% noncondensing • Operating altitude: tested up to 10,000 feet (3000 m)	

#	Item	Minimum Requirements	
20)	Language & Keyboard Support	• English (UK, U.S.), French	
21)	In the Box	• iPhone with iOS 13 • EarPods with Lightning Connector • USB-C to Lightning Cable • 18W USB-C Power Adapter • Documentation	

[97]

A.1.55   iPad Pro 12.9‑inch

[98]   The equipment shall meet the following prerequisites on the procurement process for any new iPhone devices that have to be enrolled into the Mobility solution:

- Devices have to be purchased directly from Apple or Apple Authorized Resellers / Carrier that are participating on the Apple Device Enrolment Program. Details about the Apple DEP here: http://www.apple.com/business/dep

- The devices have to be assigned by the supplier to the NATO DEP ID: 927338

- The supplier will provide their DEP ID for NATO to authorize the phones in the Apple DEP portal.

#	Item	Minimum Requirements
1)	Finish	Space Gray
2)	Capacity	128GB
3)	Size and Weight	• 11.04 inches (280.6 mm) • 8.46 inches (214.9 mm) • 0.23 inch (5.9 mm) • Wi-Fi + Cellular models: 1.42 pounds (643 grams)
4)	Buttons and Connectors	• Speaker • Three microphones • Speaker • Top button • Volume up/down • Camera • Microphone • Magnetic connector • Nano‑SIM tray • Smart Connector • USB‑C connector • Speaker • Microphone
5)	In the Box	• iPad Pro • USB-C Charge Cable (1 meter) • 18W USB-C Power Adapter
6)	Display	• Liquid Retina display • 12.9-inch (diagonal) LED-backlit Multi‑Touch display with IPS technology

#	Item	Minimum Requirements
		• 2732-by-2048-pixel resolution at 264 pixels per inch (ppi)
7)	Chip	• A12Z Bionic chip with 64-bit architecture • Neural Engine • Embedded M12 coprocessor
8)	Camera	• Wide: 12MP, ƒ/1.8 aperture • Ultra Wide: 10MP, ƒ/2.4 aperture, and 125° field of view • 2x optical zoom out; digital zoom up to 5x • Five‑ element lens (Wide and Ultra Wide) • Brighter True Tone flash • Panorama (up to 63MP)
9)	Video Recording	• 4K video recording at 24 fps, 30 fps, or 60 fps (Wide); 60 fps (Ultra Wide) • 1080p HD video recording at 30 fps or 60 fps • 720p HD video recording at 30 fps • Brighter True Tone flash
10)	Video Calling	• FaceTime video • iPad to any FaceTime-enabled device over Wi-Fi or cellular
11)	Audio Calling	• FaceTime audio • iPad to any FaceTime-enabled device over Wi-Fi or cellular
12)	Speakers	• Four speaker audio
13)	Microphones	• Five studio-quality microphones for calls, video recording, and audio recording
14)	Cellular and Wireless	All models • 802.11ax Wi-Fi 6; simultaneous dual band (2.4GHz and 5GHz); HT80 with MIMO • Bluetooth 5.0 technology Wi-Fi + Cellular models • UMTS/HSPA/HSPA+/DC‑ HSDPA (850, 900, 1700/2100, 1900, 2100 MHz); GSM/EDGE (850, 900, 1800, 1900 MHz) • Gigabit-class LTE (Models A2068 and A2069: bands 1, 2, 3, 4, 5, 7, 8, 12, 13, 14, 17, 18, 19, 20, 25, 26, 29, 30, 34, 38, 39, 40, 41, 42, 46, 48, 66, 71) • Data only • Wi-Fi calling • eSIM
15)	SIM Card	• Nano‑ SIM (supports Apple SIM) • eSIM
16)	Location	• All models • Digital compass • Wi-Fi • iBeacon microlocation • Wi-Fi + Cellular models • Built‑ in GPS/GNSS • Cellular
17)	Sensors	• Face ID • LiDAR Scanner • Three-axis gyro • Accelerometer • Barometer • Ambient light sensor
18)	Face ID	• Enabled by TrueDepth camera for facial recognition

#	Item	Minimum Requirements
		• Unlock iPad • Secure personal data within apps • Make purchases from the iTunes Store, App Store, and Apple Books
19)	Apple Pay	• Pay with your iPad using Face ID within apps and on the web • Send and receive money in Messages
20)	Siri	• Use your voice to send messages, set reminders, and more • Get proactive suggestions • Use hands-free • Listen and identify songs
21)	Charging and Expansion	USB-C
22)	Power and Battery	iPad Pro 12.9-inch • Built-in 36.71-watt-hour rechargeable lithium-polymer battery All models • Up to 10 hours of surfing the web on Wi-Fi or watching video • Charging via power adapter or USB-C to computer system Wi-Fi + Cellular models • Up to 9 hours of surfing the web using cellular data network
23)	Operating System	• iPadOS • iPadOS comes with powerful features and built-in apps designed to take advantage of the unique capabilities of iPad.
24)	Accessibility	Features include: • VoiceOver • Voice Control • Zoom • Magnifier • Siri and Dictation • Switch Control • Closed Captions • AssistiveTouch • Speak Screen
25)	Languages & Keyboard	• English (UK, U.S.), French.
26)	Environmental Requirements	Operating ambient temperature: • 32° to 95° F (0° to 35° C) Nonoperating temperature: • −4° to 113° F (−20° to 45° C) Relative humidity: • 5% to 95% noncondensing Operating altitude: • tested up to 10,000 feet (3000 m)
27)	Overview	• Smart Keyboard Folio for the 11-inch iPad Pro • Full-size keyboard when you need it to be, provides elegant front and back protection when you don't, and allows for convenient viewing angles. And with no charging or pairing required, just attach the keyboard and start typing.
28)	Compatibility	iPad Models iPad Pro 11-inch (2nd generation) iPad Pro 11-inch (1st generation)

[99]

A.1.56   NU VTC System

[100] The NU VTC System shall be a Poly Medialign 86 GS500.

#	PID	Minimum Requirements	Qty
1)	7230-86010-125	Poly Medialign 86 GS500	2
		GS500 – must be TAA Compliant	
2)	4877-86010-513	Polycom Advantage, One Year, Poly Medialign GS500	2
3)	2215-00286-003	Power Cord: EURO, RUSSIA-Type C, CE 7/7	2

A.1.57   NS VTC System – "small" room

[101] The NS VTC System shall be a Poly Medialign 65 GS500.

#	PID	Minimum Requirements	Qty
1)	7230-85990-125	Poly Medialign 65 GS500	2
		GS500 – must be TAA Compliant	
2)	4877-85990-513	Polycom Advantage, One Year, Poly Medialign GS500	2
3)	2215-00286-003	Power Cord: EURO, RUSSIA-Type C, CE 7/7	2

A.1.58   NS VTC System – "large" room

[102] The NS VTC System shall be Poly GS700 based.

#	PID	Minimum Requirements	Qty
1)	G7200-64270-001	RealPresence Group 700-720p, each includes:	3
		Group 700 HD codec	
		EagleEyeIV-12x camera	
		Microphone array	
		Remote control	
		1 x HDMI 1.8m cable	
		1 x CAT 5E LAN 3.6m	
		Power adapter	
2)	2215-00286-003	Power Cord: EURO, RUSSIA-Type C, CE 7/7	6
3)	4877-64270-513	Polycom Advantage, One Year, RealPresence Group 700-720p	3
4)	8200-64350-001	EagleEye IV-12x Camera	3
5)	4877-64350-513	Polycom Advantage, One Year, EagleEye IV-12x Camera	3
6)	2200-23809-001	Ceiling Microphone array-Black "Primary"	3
7)	2200-23810-001	Ceiling Microphone Array - Black "Extension" Kit	6
8)	C2G-50633	HDMI Cable, 7m	3
9)	C2G-50634	HDMI Cable, 10m	3
10)	7230-65878-125	Stereo Speaker kit, 110-220v, each includes:	3
		2 * 60w Satellite speakers	
		1 * 150w subwoofer	
		fuses for both 120 or 240v power source	
		speaker stands	
		3.5mm to 2xRCA, 3.5mm to 3.5mm and speaker wire	

[103]

A.1.59   1Gb SFP Fibre Network Interface Card

#	Item	Minimum Requirements	Qty
1)		AT-2914SP Fibre PCI-E Gigabit Fibre NIC for SFP	1
2)		AT-SPEX SFP Module , LC, MM, 1310 nm	1

[104]

[105]

IFB-CO-15049-BITI

TECHNICAL REFRESH OF BALKANS IT INFRASTRUCTURE (BITI)

SOW - ANNEX B

Purchaser Furnished Equipment (PFE) and Services

ANNEX A   Purchaser Furnished Equipment (PFE) and Services

B.1. Introduction

B.1.1. This annex identifies Purchaser Furnished Equipment (PFE), hardware and software that will be provided by the Purchaser and is required for the Contractor to implement the solution described in the SOW and SRS.

B.1.2. Existing equipment and services that will remain at the sites to be implemented will not be identified in detail and includes but is not limited to:

- Technical facilities,
- Power and network cabling & conduits
- Equipment racks, cabinets, UPS and power distribution systems
- Communications, Network, Security, Serves and Storage equipment
- End user and office equipment (PCs, printers, projectors, phones, VTC units)

B.1.3. New PFE equipment and services to be implemented at the sites by the project includes the following:

B.2. Hardware

B.2.1.   The Purchaser will provide the Contractor with the following:

B.2.2.   TCE 621 crypto devices

B.2.3.   KFOR NU and NS NIPS/SPN firewalls (Palo Alto 3060, 2xNS and 2xNU)

B.3. Software Licenses

B.3.1. The Purchaser will provide the Contractor with the following software licenses:

B.3.2. Microsoft software licenses, as required. Number and type of licenses to be determined after contract award

B.3.3. VMWare software licenses, as required. Number and type of licenses to be determined after contract award

B.3.4. McAfee Endpoint Security (ENS) and McAfee DLP licenses, as required. There may be instances where licenses have already been procured. In instances where no licenses exist the Contractor is required to purchase the licenses as reflected in the Schedule of Supplies and Services (SSS)

IFB-CO-15049-BITI

TECHNICAL REFRESH OF BALKANS IT INFRASTRUCTURE (BITI)

SOW - ANNEX C

Key Contractor Personnel

ANNEX C   Key Contractor Personnel

C.1.   Introduction

C.1.1. The provision and continuity of key personnel is a critical factor in the successful delivery of the project. The Contractor shall request the Purchasers' approval before changing key personnel. The minimum requirements for key personnel roles are:
  a) Project Manager;
  b) Technical Lead;
  c) Technical Writer / Author
  d) VMware Certified Professional (VCP)

C.1.2. The Contractor shall provide qualified staff in sufficient numbers to meet all the requirements of the contract as laid down in this SOW.

C.1.3. The Bidder shall provide CVs for all identified key personnel that comply with the requirements described in the tables below.

C.1.4. Supporting personnel are essential to the Project but are not identified as key personnel and Purchaser's approval is not required should they need to be changed. The minimum requirements for supporting personnel roles are:

  a) IT / Network Technician
  b) ILS / Configuration Manager
  c) Test Manager
  d) Migration Manager
  e) Security Manager

C.2.   Key Contractor Personnel

C.2.1.   Project Manager (PM)

Responsibilities	• Responsible for project management, performance and completion of tasks and delivery orders. Establishes and monitors project plans and schedules and has full authority to allocate resources to insure that the established and agreed upon plans and schedules are met.
	• Manages costs, technical work, project risks, quality, and corporate performance. Manages the development of designs and prototypes, test and acceptance criteria, and implementation plans.
	• Establishes and maintains contact with Purchaser, Subcontractors, and project team members.
	• Provides administrative oversight, handles contractual matters and serves as a liaison between the Purchaser and corporate management.

	• Ensures that all activities conform to the terms and conditions of the Contract and Work Package procedures.
Certification	• Master's degree in management, engineering, or business administration. • Formal certification through Project Management Institute or equivalent source.
Experience	• At least seven years in information systems design and project management. At least two years as the project manager for an effort of similar scope, preferably including the application of a formal project management methodology such as PRINCE2. • Shall have a demonstrated spoken and written fluency in English, as defined in STANAG 6001 at a minimum level of 4343

C.2.2.   Technical Lead (TL)

Responsibilities	• The Technical Lead (TL) shall lead the technical analysis, design, and implementation activities performed by the Contractor. • The TL shall support the Contractor PM and work with the Purchaser TL for all technical aspects concerning the delivery of the project until FSA.
Certification	• The TL shall have a University Degree in Electronic Engineering, Computer Science, Telecommunications, or related discipline, preferably equivalent to a Master's. Exceptionally, extensive relevant experience may be considered. • The TL shall have a valid certification in one of the following: Microsoft (MCSE), CISCO (CCDP), VMware VCP.
Experience	• The TL shall have a minimum of seven (7) years' experience as an ICT TL in ICT engineering projects. • At least three (3) years of the experience shall be related to the architecture, design and implementation of high resilience ICT facilities and datacentres, migration of applications and data in a high security environment. • The TL shall have demonstrated practical experience in Infrastructure (processing, virtualisation, storage, switches). • The TL shall have a minimum of one (1) years' experience in undertaking ICT QA activities. • Shall have a demonstrated spoken and written fluency in English, as defined in STANAG 6001 at a minimum level of 4343

C.2.3.   Technical Writer / Author

Responsibilities	• The Technical Writer/Author shall be responsible for the preparation, production, revision and management of technical documents including designs, configurations, test plans, as-built documents and so on.
Certification	• The Technical Writer shall have a University Degree or Technical Diploma in Electronic Engineering, Computer Science, Telecommunications, or related discipline. Exceptionally, extensive relevant experience may be considered. • Shall have a recognised certification from one of the industry professional organisations such as The Society for Technical Communication (STC) or at least two (2) years membership of a related professional organisation.
Experience	• Shall have a minimum of five (5) years' experience in technical writing and editing for ICT or similar technical projects. • Exceptional command of English language writing and communication skills. • Proficient in Microsoft Word, PowerPoint, Excel and Visio. • Shall have a demonstrated spoken and written fluency in English, as defined in STANAG 6001 at a minimum level of 4343

C.2.4.   VMware Certified Professional (VCP)

Responsibilities	• The VMware Certified Professional (VCP) shall be responsible for the design, implementation and administrative support of the VMware vSAN Clusters at the datacentres and remote locations until FSA.
Certification	• The VCP shall have a University Degree in Electronic Engineering, Computer Science, Telecommunications, or related discipline. Exceptionally, extensive relevant experience may be considered. • The VCP shall be certified as a VMware VCP-DCV (Datacentre Virtualisation)
Experience	• The VCP shall have a minimum of five (5) years' experience in ICT engineering projects. • At least three (3) years of the experience shall be related to the architecture, design, implementation and administration of high resilience VMware virtualisation solutions in a high security environment. • Shall have a demonstrated spoken and written fluency in English, as defined in STANAG 6001 at a minimum level of 4343

C.3. Supporting Personnel

C.3.1.   IT / Network Technician

Responsibilities	• Technician (s) shall be responsible for the preparation of the technical facilities, installation, configuration, migration and administrative support of all of equipment (hardware & software) provided by the project in order to implement the solution.
Certification	• Technicians shall have a University Degree or Technical Diploma in Electronic Engineering, Computer Science, Telecommunications, or related discipline. Exceptionally, extensive relevant experience may be considered. • Technicians shall have recognised industry certification from technology providers such as HP, Dell, VMware, Palo Alto, Microsoft, Cisco, McAfee and Veeam
Experience	• At least three (3) years of experience shall be related to the implementation and administration of ICT in high security environments.

C.3.2.   ILS / Configuration Manager

Responsibilities	• Conducts Supportability Engineering planning including Logistics Support Analysis (LSA), Reliability, Availability, Maintainability and Testability (RAMT) engineering, maintenance planning, supply support, Packing, Handling, Storage and Transportation (PHS&T), Configuration Management, Quality Assurance and manage the development of related support documentation. • Creates and helps execute plans for the Integrated Logistics Support (ILS) of complex systems. Analyses adequacy and effectiveness of current and proposed logistics support provisions. Supervises the efforts of other logistics personnel in the execution of assigned tasks. • Establishes and maintains a process for tracking the life cycle development of system design, integration, test, training, and support efforts. Maintains continuity of products while ensuring conformity to Purchaser requirements and commercial standards. Establishes configuration control forms and database. • Plans, organizes and manages any training effort required for the installation and operation of the capability
Certification	• Shall have a University Degree or Technical Diploma in Electronic Engineering, Computer Science, Telecommunications, or related discipline. Exceptionally, extensive relevant experience may be considered.
Experience	• At least three (3) years of experience shall be related to the supply and support of ICT systems.

C.3.3.   Test Manager (TM)

Responsibilities	• The Test manager (TM) shall be responsible for the preparation and execution of all testing and verification activities related to the installation, configuration and administrative support of all of equipment (hardware & software) provided by the project in order to implement the solution.
Certification	• The TM shall have a University Degree or Technical Diploma in Electronic Engineering, Computer Science, Telecommunications, or related discipline. Exceptionally, extensive relevant experience may be considered. • The TM shall have recognised industry certification from technology providers such as HP, Dell, VMware, Palo Alto, Microsoft and Cisco.
Experience	• At least three (3) years of experience shall be related to the testing of ICT systems implemented in high security environments.

C.3.4.   Migration Manager (MM)

Responsibilities	• The Migration manager (TM) shall be responsible for the preparation and execution of all migration and transition to operations activities related to the implementation of all equipment (hardware & software) and services provided by the project
Certification	• The MM shall have a University Degree or Technical Diploma in Electronic Engineering, Computer Science, Telecommunications, or related discipline. Exceptionally, extensive relevant experience may be considered. • The MM shall have recognised industry certification from technology providers such as HP, Dell, VMware, Palo Alto, Microsoft and Cisco.
Experience	• At least three (3) years of experience shall be related to the implementation, migration and transition to operations of ICT systems implemented in high security environments.

C.3.5.   Security Manager (SM)

Responsibilities	• The Security Manager (SM) shall be responsible for all Contractor activities related to security accreditation, and will serve as a security accreditation subject matter expert. • The SM shall work with the Technical Writer/Author to update and maintain security accreditation documents for

	the Purchaser, specifically the CIS Description, SSRS, SISRS, STVP, SecOPs. • The SM shall provide security-related documentation to the Purchaser in support of the SRA. • The SM shall work with the TM to ensure that test cases, scripts, and Security Test Reports serve to verify that the installed solution at a site complies with the STVP.
Certification	• The SM shall have a University Degree or Technical Diploma in Information Security, Computer Engineering, Computer Science, Telecommunications, or related discipline. Exceptionally, extensive relevant experience may be considered. • The SM shall have recognised information security certification from organisations such as GIAC and (ISC)².
Experience	• At least three (3) years of experience shall be related to the planning, design, implementation, risk assessment, security testing, security operation, and security accreditation of CIS solutions implemented in high security environments.

IFB-CO-15049-BITI

TECHNICAL REFRESH OF BALKANS IT INFRASTRUCTURE (BITI)

SOW - ANNEX D

Maintenance and Support definitions

ANNEX D   Maintenance and Support definitions

D.1. Scope

D.1.1. This Annex provides definitions on Maintenance Levels, the Support levels and the relevant activities to be carried on by the involved actors.

D.1.2. The SOW specifies who is responsible for what, at the various Maintenance/Support levels from PSA to the End of Warranty.

D.1.3. Before PSA the responsibility of any maintenance/support activity is and remains with the Contractor.

D.2. Maintenance Concept

D.2.1. Introduction

D.2.1.1. A Maintenance Concept is a definition of the maintenance objectives, line of maintenance, indenture levels, maintenance levels, maintenance support and their interrelationships.

D.2.1.2. 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.

D.2.1.3. The Maintenance concept identifies who-does-what-at-what-level in accordance with the Maintenance levels and definitions defined below.

D.2.1.4. The main SOW identifies clearly what is the Maintenance concept for the project(s).

D.2.2. Maintenance Levels (line of maintenance)

D.2.2.1. 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.

D.2.2.2. There are four (4) Maintenance Levels to ensure the highest possible availability of the Product.

- Level 1: implies a fast and easy exchange of MSIs performed on the Product by organizational personnel when a malfunction occurs;

- Level 2: implies exchange of MSIs and/or the replacement of modules, performed on the Product by organizational personnel when a malfunction occurs;

- Level 3: implies the repair of subassemblies, modules and 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;

- 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).

D.2.3. Hardware Maintenance and Hardware Change

D.2.3.1. The hardware maintenance is:

D.2.3.2. Corrective:

- o 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 schedules maintenance downtime period) or on "live" equipment if this is possible (e.g. when active redundancy or hot stand-by are implemented).

- o 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.

D.2.3.3. Preventative:

- o 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.

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

D.2.3.4. 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 MSIs (Maintenance Significant Items), with the following characteristics:

D.2.3.5. Include those items in the Logistic Breakdown Structure (LBS) which are significant for maintenance at the Organisational Level.

D.2.3.6. Include all the candidate items of the spare parts and consumables lists.

D.2.3.7. Are subdivided into the following categories:

1) LRU (Line Replaceable Unit)

   a) 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 TMs and general-purpose test equipment and troubleshooting procedures;

   b) It is easily accessed for replacement purposes;

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

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

   e) Adjustments may be carried out with the BIT or with general-purpose HW/SW tools and test equipment;

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

LRUs are subdivided into the following two categories:

- 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 theirs components/peripherals, Networking equipment (Routers, switches), Power Supplies, electric/electronic components in general etc.

- 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.

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.

3) Consumable Items:

Consumables are subdivided into the following three categories:

a) 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) 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.

c) Technical 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.

4) Attaching Parts (AP)

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.

D.2.4. Hardware Maintenance Levels

D.2.4.1. The hardware maintenance levels used are generally known as HL1, HL2 HL3 and HL4.

D.2.4.2. Organizational Maintenance (HL1) is Hardware maintenance capable of being carried out:

- on-site;

- 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;

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

- no Special Tools and Test Equipment (TTE) are envisioned to be used;

- typical tasks will include visual inspection, preventative maintenance tasks, manual reconfiguration if necessary, external adjustments, removal and replacement of LRUs/IIs;

- 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;

- generation of equipment failure reports, supply requisitions and other pertinent maintenance and supply records.

D.2.4.3. Organizational Maintenance (HL2) is Hardware maintenance capable of being carried out:

- on-site;

- 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;

- 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;

- simple either commercial or special-to-type TTE are envisioned to be used (e.g.: screwdrivers, multimeters, oscilloscope, adapters, peculiar support equipment);

- where the fault is beyond the capabilities of HL1 technical support, HL2 activities will be performed by Support Site personnel (through on-site intervention);

- 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;

- generation of equipment failure reports, supply requisitions and other pertinent maintenance and supply records.

D.2.4.4. Intermediate Maintenance (HL3) is Hardware maintenance capable of being carried out:

- 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;

- by higher technical skill level personnel performing:

- repairing, testing and calibrating Line Replaceable Units (LRU), Shop Replaceable Units (SRU)and secondary spare parts (SSPs);

- on-site investigations and major scheduled servicing/overhaul, detailed inspection, major equipment repair, major equipment modification, complicated adjustments, system/equipment testing;

- failure trend analysis including reporting to relevant Purchaser authorities and Post Design Services (PDS);

- 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);

- 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;

- generation of equipment failure reports, supply requisitions and other pertinent maintenance and supply records.

D.2.4.5. Depot Maintenance (HL4) is Hardware maintenance capable of being carried out:

- 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;

- where the fault is beyond the capabilities of HL1-3 technical support, HL4 activities will be performed by the Contractor;

- generation of equipment failure reports, supply requisitions and other pertinent maintenance and supply records.

D.2.5. Software Maintenance and Software Change

D.2.5.1. The software maintenance is a modification for the purposes of software fault removal, adaptation to a new environment, or improvement of performance.

D.2.5.2. The software maintenance for the purposes of software fault removal can be:

- 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.

- 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).

D.2.5.3. 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:

- 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.

- 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.

D.2.6. Software Maintenance Levels

D.2.4.1. The software maintenance levels used are generally known as SL1, SL2 SL3 and SL4.

- 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.

- 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.

- 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 Security.

- 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.

D.3. Support Concept

D.3.1. Introduction

D.3.1.1. A Support Concept is a definition of the support objectives (scenarios) in relation with maintenance levels, maintenance support and their interrelationships.

D.3.1.2. This is peculiar for IT/SW-intensive and IT/SW-driven systems and shall be implemented in conjunction and coordination with the Maintenance Concept.

D.3.2. Support levels

D.3.2.1. There are (4) support levels

D.3.2.2. First level support (on-site, non-specialised)

D.3.2.3. 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.

D.3.2.4. The 1st Level Support Process implements the Incident Management process in accordance with the ISO/IEC 20000 and ITIL framework or equivalent;

D.3.2.5. 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.

D.3.2.6. Second level support (centralised)

D.3.2.7. It provides escalated technical support to incident investigation and diagnosis. This level delivers advanced expertise to process services related to centralised 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.

D.3.2.8. The 2nd Level Support Process implements the Problem Management process in accordance with the ISO/IEC 20000 and ITIL framework or equivalent;

D.3.2.9. The Problem Management process receives the TT from the Service Desk and performs the following tasks:

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

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

- Identification of workarounds,

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

- Create Problem Analysis Report and Change Request (CR) incl. schedule of implementation, and synchronisation with the Baseline Maintenance process;

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

- Monitor and Control the approved CR during implementation,

- Trigger 3rd Level Support and/or 3rd Level Maintenance process to implement the CR;

- Perform the post- CR implementation review;

D.3.2.10. Third level support (centralised)

D.3.2.11. 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.

D.3.2.12. The 3rd Level Support Process implements the Deployment and Release Management process in accordance with the ISO/IEC 20000 and ITIL framework or equivalent.

D.3.2.13. The Deployment and Release Management process receives the approved Change Request from the 2nd Level Support and performs the following tasks:

- Release of the solution (release unit/record)

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

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

- Update of Baseline content and status,

- Delivery and deployment of the solution.

D.3.2.14. Fourth level support (OEM/vendor)

D.3.2.15. It consists of off-site factory/vendor problem resolution and maintenance, beyond the capability of third level support.

D.3.3. Support scenarios

D.3.3.1. The support concept is the apportionment of maintenance activities:
- NATO Maintenance Task (NMT) will be performed by NATO personnel (military or civilian),

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

D.3.3.2. Theoretically there are four possible scenarios:
- 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.

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

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

- CONO – Contractor Owned / NATO Operated. This approach exists and is usually called "Financial leasing".

D.3.3.3. For NONO and CONO scenario the Contractor needs to agree with the Purchaser on maintenance levels commitments and develop a tailored logistic support concept based on a blend sharing of maintenance levels (following an e.g.:):
- Hardware Maintenance (Levels HL1, HL2) + Software Maintenance (Levels SL1) are NMT

- Hardware Maintenance (Level HL3) + Software Maintenance (Level SL2) are IMT with a learning curve versus NMT

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- Hardware Maintenance (Levels HL4) + Software Maintenance (Levels SL3, 4) are IMT

D.3.3.4. For NOCO and COCO scenario the Contractor is responsible for the following maintenance levels when developing the logistic support concept: Hardware Maintenance (Levels HL1, HL2, HL3 and HL4) and Software Maintenance (Levels SL1, SL2, SL3 and SL4).

D.4. Maintenance and Support allocation