NCI AGENCY

**Acquisition Directorate**

Boulevard Léopold III
B-1110 Brussels, Belgium

NCIA/ACQ/2020/6369
22 December 2020

To: Bidders List and Distribution List

Subject: Invitation For Bid IFB-CO-14783-INTELFS2

*Intelligence Functional Services (INTEL-FS) - Spiral 2 and BMD functions in INTEL-FS*

References: A. AC/4-D/2261(1996 Edition), Procedures for International Competitive Bidding

B. AC/4-D(2008)0002-REV2, International Competitive Bidding Using Best Value Evaluation Methodology, dated 15 July 2015

C. NCI Agency NOI NCIA/ACQ/2020/6859, dated 31 July 2020

D. AC/4-DS(2020)0018, Investment Committee Decision Sheet

Dear Prospective Bidders,

1. Your firm is hereby invited to participate in an International Competitive Bid under the bidding procedures set forth in Reference A, with the exceptions stipulated in Reference D, for the project to develop Spiral 2 of the Intelligence Functional Services (INTEL-FS) capability.

2. The NCI Agency intends to award two contracts, each with a separate and distinct scope, to cover the entire scope of the project:

   a. One for the "Front-end", or User Applications, for the Intel-FS capability;

   b. One to deliver the "Back-end" Data Management services.

3. Bidders are free to bid on either contract, or on both, but for each of the contracts, no partial bidding will be accepted. The evaluations will be conducted separately, so a bidder who submits a bid for both contracts may be selected for only one of them.

4. **The closing time for submission of bids in response to this IFB is 12:00 pm / 12h00 (Brussels time) on 16 March 2021.**

5. The reference for this Invitation for Bid (IFB) is IFB-CO-14783-INTELFS2. More specifically, the IFB reference for each of the two contracts are:

   a. IFB-CO-14783-INTELFS2–UA: User Applications.

   b. IFB-CO-14783-INTELFS2–BE: Back-end Data Management services.

All bids and correspondence must reference the appropriate suffix, that is, 14873-INTELFS2-**UA** or 14873-INTELFS2-**BE**.

6. The scope of the overall project and of each of the two contracts is described in the prospective Contract (Book II), provided with this letter.

7. This Invitation for Bid consists of the following:

    - Book I: Bidding Instructions, including annexes. Please note there are separate Bidding Sheets (Annexes A3 and A4) for each contract.
    - Book II: Prospective Contract:
        - Part I: The Schedule of Supplies and Services (SSS) – please note there is a separate SSS for each contract.
        - Part II: The Contract Special Provisions.
        - Part III: The Contract General Provisions.
        - Part IV: The Statement of Work (SOW) and Annexes A - B. The SOW and the Annexes thereto set forth detailed specifications governing the performance requirements of the Contract.

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

9. **Please complete and return the enclosed acknowledgement of receipt (Attachment A) within 21 days of receipt of this IFB, informing this Agency of your intention to bid.** Your firm is not bound by its initial decision, and if you decide to reverse your stated intention at a later date, you are requested to advise us by a separate letter.

10. Prospective 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.

11. The NCI Agency point of contact for all information concerning this IFB is:

    NCI Agency,
    Boulevard Léopold III
    B-1110 Brussels, Belgium
    Attention: Dan Gaertner, Senior Contracting Officer, daniel.gaertner@ncia.nato.int

FOR THE DIRECTOR OF ACQUISITION:

Daniel Gaertner Digitally signed by Daniel Gaertner Date: 2020.12.22 20:01:50 +01'00'

Daniel K Gaertner
Senior Contracting Officer

**Attachment A** Acknowledgement of Receipt of IFB-CO-14783-INTELFS2
**Attachment B** Final Bidders List

NCIA/ACQ/2020/6369

**ATTACHMENT A**

**ACKNOWLEDGEMENT OF RECEIPT OF INVITATION FOR BID**

**IFB-CO-14783-INTELFS2**

Please complete and return within 21 days by e-mail to:

IFB-CO-14873-INTELFS2@ncia.nato.int

We hereby confirm that we have received the Invitation for Bid and have accessed the bidding documentation related to IFB-CO-14783-INTELFS2 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 for:

☐ The Front-End, User Applications contract, IFB-CO-14873-INTELFS2-UA.

☐ The Back-End, Data Management contract, IFB-CO-14873-INTELFS2-BE.

☐ Both contracts.

☐ We do not intend to submit a bid.

☐ We are reviewing the requirements of the IFB and will notify you of our decision as soon as possible.

Signature: _____

Printed Name: _____

Title: _____

Company: _____

NCIA/ACQ/2020/6369

**ATTACHMENT B**

**FINAL BIDDERS LIST**

| COUNTRY | COMPANY NAME |
|---|---|
| BELGIUM | White Team Consulting |
| | ATOS |
| | BREVCO Services |
| | Deloitte Consulting And Advisory |
| | EVERIS Belgium |
| | IBM |
| | NEWELEC |
| | RHEA Systems |
| | SOPRASTERIA |
| | Luciad/Hexagon Geospatial |
| | SAS Institute |
| | BIMS |
| | EUROCITY |
| | CYPROS C |
| | VMware |
| | NSAC |
| CANADA | MDA Systems Ltd. |
| | Compusult Limited |
| | Modest Tree Media Inc |
| CROATIA | KING ICT d.o.o |
| CZECH REPUBLIC | URC Systems, spol. s r.o. |
| FRANCE | Global Technologies |
| | THALES SIXT GTS |
| | THALES LAS France SAS |
| | TRS AMDC2 |
| | AIRBUS Defence and Space |
| | AVANTIX S.A.S. |
| GERMANY | CGI Deutschland B.V. & Co. KG. |
| | Airbus Defence and Space GmbH |
| | Bechtle GmbH & Co.KG |
| | Esri Deutschland GmbH |
| | Atos Information Technology |
| | Bechtle GmbH & Co. KG |
| | IBM Deutschland GmBH |
| GREECE | European Dynamics SA |
| ITALY | Leonardo S.p.A. |

| | |
|---|---|
| | Vitrociset S.p.A. |
| | IES s.r.l. Ingegneria Elettronica Sistemi |
| | ALMAVIVA S.p.a |
| | Engineering Ingegneria Informatica S.P.a. |
| | CY4GATE S.p.A. |
| **LITHUANIA** | UAB NRD Systems |
| | UAB ELSIS PRO |
| **NETHERLANDS** | S[&]T Experts Pool (STEP) |
| | NCIM Groep |
| | UNI Business Centre B.V. |
| | CapGemini |
| **NORWAY** | Teleplan Globe AS |
| **POLAND** | Vector Synergy Sp.z.o.o. |
| **PORTUGAL** | Critical Software, S.A. |
| **ROMANIA** | certSIGN SA |
| | ATOS Convergence Creators SRL |
| **SLOVAKIA** | Aliter Technologies, a.s. |
| **SPAIN** | EVERIS Spain, S.L.U |
| | GMV Aerospace And Defence. S.A.U. |
| | FCC Industrial E Infraestructuras Energeticas, S.L.U. |
| | Atos IT Solutions and Services Iberia SL |
| | INETUM |
| **TURKEY** | Simsoft Bilgisayar Teknolojileri Ltd. Şti. |
| | STM Savunma Teknolojileri Mühendislik ve Ticaret Anonim Sirketi |
| | Esen Sistem Entegrasyon ve Mühendislik Hizmetleri San. ve Tic. Ltd. Şti. |
| | Havelsan Hava Electronic Sanayi ve Ticaret Anonim Sirketi |
| | Savronik Elektronik Sanayi ve Ticaret A.S |
| | EMFA YAZILIM DANIŞMANLIK ELEKTRONİK İLETİŞİM TEKNOLOJİLERİ VE ORGANİZASYON SANAYİ VE TİCARET LİMİTED ŞİRKETİ |
| | MİLSOFT YAZILIM TEKNOLOJİLERİ ANONİM ŞİRKETİ |
| | ATOS BILISIM VE DANISMANLIK ANONIM ŞİRKETİ |
| **UK** | BAE Systems (Air) |
| | Cadmidium Services Ltd |
| | Palantir Technologies UK Ltd |
| | Mass |
| | Elbit Systems Ltd (UK) or Elbit Systems UK Limited |
| | Forcepoint UK Limited |
| | TriCIS Ltd |
| | ISS Global Ltd |
| **USA** | Axiologic Solutions LLC |
| | Booz Allen Hamilton, Inc. |
| | Environmental Systems Research Institute, Inc. |

| | |
|---|---|
| | Leidos, Inc. |
| | Raytheon Company |
| | NetApp U.S. Public Sector, Inc. |
| | NTT DATA Services Federal Government, LLC |
| | MCR Federal, LLC |
| | Connexta, LLC |
| | Overwatch Systems, Ltd. |

NCIA/ACQ/2020/6369

**Distribution List for IFB-CO-14783-INTELFS2**
(in addition to Attachment B)

**NATO Delegations (Attn: Infrastructure Adviser):**

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
United Kingdom
United States

**NATO HQ**

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

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

SACTREPEUR, Attn: Infrastructure Assistant

SHAPE, Attn: J3 & J2

**Strategic Commands**

HQ SACT Attn: R&D Contracting Office

ACO Liaison Office

**All NATEXs**

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

# Invitation for Bids

## IFB-CO-14873-INTELFS2
### Intelligence Functional Services (INTEL-FS) - Spiral 2 and BMD functions in INTEL-FS

IFB-CO-14873-INTELFS2-UA
User Applications

IFB-CO-14873-INTELFS-BE
Backend Service and Integration

# GENERAL INDEX

**BOOK I - THE BIDDING INSTRUCTIONS**

Section I Introduction

Section II General Bidding Information

Section III Bid Preparation Instructions
*This section includes information specific to each individual bid*

Section IV Bid Evaluation
*This section includes information specific to each individual bid*

Annex A Bidding Sheets
*This annex includes bidding sheets specific to each individual bid*

Annex B Prescribed Administrative Forms and Certificates

Annex C Bid Guarantee - Standby Letter Of Credit

Annex D Clarification Request Form

**BOOK II - THE PROSPECTIVE CONTRACTS**

Part I Schedule of Supplies and Services (SSS)
*The IFB includes two SSS files, one for each prospective contract*

Part II Contract Special Provisions

Part III Contract General Provisions

Part IV - Statement of Work (SOW)
- SOW Annex A, System Requirement Specifications
- SOW Annex B, User Stories (for CO-14873-INTELFS2-UA)
- SOW Annex B, Information Model (for CO-14873-INTELFS2-BE)
*The SOWs and annexes are specific to each prospective contract*

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

# IFB-CO-14873-INTELFS2

## Intelligence Functional Services (INTEL-FS) - Spiral 2 and BMD functions in INTEL-FS

BOOK I

BIDDING INSTRUCTIONS

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# SECTION 1 INTRODUCTION

## 1.1. Purpose and Scope

1.1.1. The NATO Communications and Information (NCI) Agency has been authorized to invite bids and award two contracts to upgrade the current Intelligence Functional Services (INTEL-FS) capabilities. One contract will be for the User Applications; the second contract will be for the Backend Services and Integration with other systems.

1.1.2. All of the technical details and requirements of the project are explained in Book II, Part IV, Statement of Work (SOW) and the SOW annexes. There is a separate SOW, SOW Annex A and SOW Annex B for each prospective contract.

## 1.2. Overview of the Prospective Contracts

1.2.1. Book II of this IFB provides the Prospective Contracts that will require the selected Contractor to deliver the INTEL-FS capabilities. The Contractor shall perform all activities required in Book II Part IV (SOW and Annexes) and shall deliver the associated deliverables as per Book II Part I (Schedule of Supplies and Services (SSS)).

1.2.2. The Contracts resulting from this IFB shall be awarded on a Fixed Price Incentive Fee (FPIF) basis.

1.2.3. Both contracts will use elements of the Agile methodology, with multiple increments, each consisting of several sprints, and the opportunity for frequent acceptances of functional software.

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

1.2.5. Any terms and conditions that are specific to one of the contracts will be marked as either CO-14873-INTELFS2-UA for the User Applications contract, CO-14873-INTELFS2-BE for the Backend Services contract.

## 1.3. Governing Rules, Eligibility, and Exclusion Provisions

1.3.1. This solicitation is an International Invitation for Bid (IFB) and is issued in accordance with the procedures for International Competitive Bidding (ICB) set forth in NATO document AC/4-D/2261 (1996 Edition) and its Annex X, dated 24 July 2009, with the exception explained in Section 4.3.1.2 as authorized by the Investment Committee.

1.3.2. Pursuant to these procedures, bidding is restricted to companies from participating NATO member countries (see Para 2.1.1.6) for which a Declaration of Eligibility has been issued by their respective national authorities.

## 1.4. Best Value Evaluation Method

1.4.1. The evaluation method to be used in the selection of the successful Bidder under this solicitation will follow the Best Value Procedures set forth in AC/4-D/2261, Annex X, dated 24 July 2009, and AC/4(2008)0002-REV2-ANNEX 1, dated 15 July 2015, or deviations to the procedure, as approved by the NATO Investment Committee.

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

1.4.2.1. Some of the evaluation criteria for CO-14873-INTELFS2-UA and –BE are different from one another, given that the bids are evaluated against different skills and experiences, and against different technical requirements. Bidders are encouraged to closely review all of SECTION 4 to ensure a thorough understanding of how the bids for each prospective contract will be evaluated.

1.4.2.2. The evaluation of bids for CO-14873-INTELFS2-UA and –BE will be performed independently from one another.

1.4.2.3. Please note that the technical and price evaluations will be conducted in parallel by independent evaluation teams.

1.4.3. The Bidder shall refer to the Purchaser all queries for resolution of any conflicts found in information contained in this document in accordance with the procedures set forth in paragraph 2.6 "Request for IFB Clarifications".

## 1.5. Security

1.5.1. This Invitation for Bid is NATO UNCLASSIFIED.

1.5.2. Contractor personnel will be required to possess a security clearance of "NATO SΞCRET" (NS) for the performance of the Contract.

1.5.3. The Contractor will be required to handle and store classified material to the level of "NATO RESTRICTED".

1.5.4. The Contractor shall have the appropriate facility and personnel clearances at the date of Contract Signature. Should the Contractor be unable to perform the Contract due to the fact that the facility/security clearances have not been provided by their respective national security agency, this lack of clearance cannot be the basis for a claim of adjustment or an extension of schedule, nor the lack of clearance be considered a mitigating circumstance in the case of an assessment of Liquidated Damages or a determination of Termination For Default by the Purchaser under the Prospective Contract.

1.5.5. Contractor personnel working at NATO or National sites without such a clearance confirmed by the appropriate national security authority and

transmitted to the cognisant NATO or National security officer at least fourteen (14) days prior to the site visit, will be denied access to the site. Denial of such access by the Purchaser may not be used by the Contractor as the basis for a claim of adjustment or an extension of schedule nor can the denial of access be considered a mitigating circumstance in the case of an assessment of Liquidated Damages or a determination of Termination for Default by the Purchaser.

1.5.6. Bidders are advised that Contract signature will not be delayed in order to allow the processing of NS 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. In such a case, the Bidder who would not sign the Contract shall be liable for forfeiture of the Bid Guarantee.

## 1.6. Bidders Conference

1.6.1. Prospective Bidders are invited to a Bidders Conference that will be held on-line on Thursday, 21 January 2021. The technical and logistical details of connecting to the Conference will be provided at a later date.

1.6.2. The purpose of the Bidders Conference is to brief the Prospective Bidders on the IFB. The Conference is planned to include a briefing on the bidding process and the bidding sheets, the Prospective Contract, and the technical aspects of the project. The agenda will be sent to attendees in advance.

1.6.3. Those companies that wish to participate in the Bidders Conference must indicate their intention to attend not later than 7 days prior to the date of the Conference to the Point of Contact stated in paragraph 2.5.1.

1.6.4. Bidders may submit questions in writing not later than 7 days prior to the date of the Conference to the email address in paragraph 2.5.1. The Purchaser will endeavour to respond to these questions during the Bidders Conference.

1.6.5. For any additional questions that are asked at the Conference, the Purchaser may attempt to answer them at that time, but any answer that may appear to change terms, conditions and/or specifications of the IFB shall be considered to be formally included in the IFB only after a written amendment to the IFB is issued in writing by the Purchaser.

1.6.6. Answers to all questions will be issued in writing to all Bidders as soon as practicable after the Conference, whether or not the Bidders attended the Conference. The formal written answers will be the official response of

the Agency, even if the written answer differs from the verbal response provided at the Conference.

1.6.7. Notwithstanding the written answers provided by the NCI Agency after the Bidders Conference, the terms and conditions of the IFB remains unchanged unless a formal IFB amendment is issued by the NCI Agency.

## 1.7. Documentation

1.7.1. 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 and reference documents are provided “as is“, without any warranty as to quality or accuracy.

# SECTION 2 GENERAL BIDDING INFORMATION

## 2.1. Definitions

2.1.1. In addition to the definitions and acronyms set forth in the Contract Special Provisions (Part II) and Contract General Provisions (Part III) of the prospective Contract, the following terms and acronyms, as used in this Invitation for Bid shall have the meanings specified below:

2.1.1.1. "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 shall be a reason for the Bid being declared non-compliant.

2.1.1.2. "Compliance": strict conformity to the requirements and standards specified in this IFB and its attachments.

2.1.1.3. "Contractor": the awardee of this solicitation of offers, who shall be responsible for the fulfilment of the requirements established in the prospective Contract.

2.1.1.4. “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.

2.1.1.5. “IFB”: Invitation for Bid.

2.1.1.6. “Participating Country”: any of the following 29 NATO nations (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.

2.1.1.7. “Purchaser”: NATO Communications and Information Agency (NCI Agency) or its legal successor.

2.1.1.8. “Quotation” or “Bid”: a binding offer to perform the work specified in the attached prospective Contract (Book II).

## 2.2. Eligibility and Origin of Equipment and Services

2.2.1. All Contractors, Subcontractors and manufacturers, at any tier, must be from Participating Countries.

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

2.2.3. 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.

2.2.4. 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 within 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.

## 2.3. Bid Delivery and Bid Closing

2.3.1. The closing date and time for submission of bids in response to this IFB is **12h00 / 12pm (Central European Time) on 16 March 2021**.

2.3.2. For bidders that submit a bid for both the User Applications (UA) and Back-end Services (BE) contracts, the bids shall be submitted separately. The bid openings and every aspect of the evaluations will be performed independently from one another.

2.3.3. Bids shall be delivered to the appropriate email address below, which will generate an automatic confirmation of receipt:

For bids for the User Application, Front-end contract:

IFB-CO-14873-INTELFS2-UA.Bids@ncia.nato.int

or

For bids for the Data Management, Back-end contract:

IFB-CO-14873-INTELFS2-BE.Bids@ncia.nato.int

2.3.4. Late Bids

2.3.4.1. 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.

2.3.4.2. *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:

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

2.3.4.2.2. The Bid was sent to the correct email address specified in Section 2.3.3 and the delay was solely the fault of the Purchaser.

## 2.4. Requests for Extension of Bid Closing Date

2.4.1. Bidders are informed that requests for extension to the closing date for the IFB shall be submitted by the Bidder only through its respective country's NATO Delegation or Embassy to the Purchaser Point of Contact indicated in Section 2.5.1 below. Any request for extension shall be submitted by the respective NATO Delegation or 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 the above time limit.

## 2.5. Purchaser's Point of Contact

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

Mr. Dan Gaertner, Senior Contracting Officer
Acquisition, NCI Agency
Questions/Clarifications:
IFB-CO-14873-INTELFS2@ncia.nato.int
Bid Delivery :
All bids shall be delivered by email as stated in paragraph 2.3.3.

## 2.6. Request for IFB Clarifications

2.6.1. Bidders, during the solicitation period, are encouraged to query and seek clarification of any matters of a contractual, administrative and technical nature pertaining to this IFB.

2.6.2. All questions and requests for clarification shall be forwarded to the Purchaser using the Clarification Request (CR) Forms provided at Annex D of this Book I. Such questions shall be submitted by email to the point of contact specified in Section 2.5.1 above and shall arrive **not later than twenty eight (28) calendar days** prior to the stated "Bid Closing Date". The Purchaser is under no obligation to answer requests for clarification 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 Section 2.6.4, below.

2.6.3. Bidders shall keep the classification of their request NATO Unclassified to facilitate a quicker review and response. Such requests shall be emailed to the point of contact specified in paragraph 2.5.1 above.

2.6.4. Additional requests for clarification are limited only to the information provided as answers by the Purchaser to Bidder requests for clarification.

Such additional requests shall arrive not later than fourteen (14) calendar days before the established Bid Closing Date.

2.6.5. 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 means used for the transmission of the clarification (i.e. email or form by which the clarification is forwarded).

2.6.6. 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 Section 2.6.5.

2.6.7. The Purchaser may provide for a re-wording of questions and requests for clarification where it considers the original language ambiguous, unclear, subject to different interpretation or revelatory of the Bidder's identity.

2.6.8. Bidders are advised that subsequent questions and/or requests for clarification included in a Bid shall neither be answered nor considered for evaluation.

2.6.9. 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 to all prospective Bidders.

2.6.10. 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 pursuant to AC/4-D/2261 and in accordance with paragraph 2.8.

2.6.11. The Purchaser reserves the right to reject questions and 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).

2.6.12. The published responses issued by the Purchaser shall be regarded as the authoritative interpretation of the Invitation for Bid. 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 his offer.

## 2.7. Requests for Waivers and Deviations

2.7.1. Bidders are informed that requests for alteration to, waivers or deviations from the terms and conditions of this IFB and attached prospective Contract (Book II) will not be considered after the request for clarification process. Requests for alterations to the other requirements, terms or conditions of the Invitation for Bid or the prospective Contract may only be

considered as part of the clarification process set forth in paragraph 2.6 above. 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.

## 2.8. Amendment of the IFB

2.8.1. The Purchaser may amend the IFB at any time prior to the Bid Closing Date. Any and all changes will be transmitted to all Bidders by an official amendment designated as such and signed by the Purchaser. This process may be part of the clarification procedures set forth in paragraph 2.6 or may be an independent action on the part of the Purchaser.

2.8.2. The Purchaser will consider the potential impact of amendments on the ability of prospective Bidders to prepare a 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.

2.8.3. All such IFB amendments issued by the Purchaser shall be acknowledged by the Bidder in its Bid by completing the “Acknowledgement of Receipt of IFB Amendments” certificate at Annex B-2. Failure to acknowledge receipt of all amendments may be grounds to determine the Bid to be administratively non-compliant.

## 2.9. Modification and Withdrawal of Bids

2.9.1. 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 Bid Closing Date as detailed in paragraph 2.3.1. Such modifications will be considered as an integral part of the submitted Bid.

2.9.2. 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 detailed in paragraph 2.3.4, 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.

2.9.3. 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.

2.9.4. Except as provided in paragraph 2.10.4.2 below, a Bidder may withdraw its Bid after Bid Opening only by forfeiture of the Bid Guarantee.

## 2.10. Bid Validity

2.10.1. Bidders shall be bound by the term of their Bid for a period of twelve (12) months starting from the Bid Closing Date specified in paragraph 2.3.1 above.

2.10.2. In order to comply with this requirement, the Bidder shall complete the Certificate of Bid Validity set forth in Annex B-4. Bids offering less than the period of time referred to above for acceptance by the Purchaser may be determined to be non-compliant.

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

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

2.10.4.1. 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

2.10.4.2. Refuse this extension of time and withdraw the Bid, in which case the Purchaser will return to the Bidder its Bid Guarantee in the full amount without penalty.

2.10.5. 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.

## 2.11. Bid Guarantee

2.11.1. 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 *NCIAFinanceTreasuryBankGuarantee@ncia.nato.int*. In either case, the Bidder shall also provide a copy of the Bid Guarantee in the Bid Administration Volume.

2.11.2. The Bidder shall furnish with its Bid a guarantee in an amount equal to:

2.11.2.1. For IFB-CO-14873-INTELFS2-UA, One Hundred and Thirty Thousand Euro (€130,000)

2.11.2.2. For IFB-CO-14873-INTELFS2-BE, One Hundred and Seventy Thousand Euro (€170,000).

2.11.2.3. For any bidders submitting a bid for both UA and BE, the bid guarantees shall total €300,000 and shall be submitted separately.

2.11.2.4. The Bid Guarantee shall be substantially similar to Annex C 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, NATO Communications and Information Agency.

2.11.3. 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.

2.11.4. 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.

2.11.5. 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.

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

2.11.6.1. The Bidder has submitted a Bid and, after Bid Closing Date (including extensions thereto) and prior to the selection the compliant Bid determined to represent the best value, withdraws his Bid, or states that he does not consider his Bid valid or agree to be bound by his Bid, or

2.11.6.2. The Bidder has submitted a compliant Bid determined by the Agency to represent the best value, but the Bidder declines to sign the Contract offered by the Agency, such Contract being consistent with the terms of the Invitation for Bid.

2.11.6.3. 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 within a reasonable time,

2.11.6.4. 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.

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

2.11.7.1. 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);

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

2.11.7.3. To the successful Bidder upon submission of the Performance Guarantee required by the Contract.

2.11.7.4. pursuant to paragraph 2.10.4.2.

2.11.8. “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,

## 2.12. Cancellation of IFB

2.12.1. 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.

## 2.13. Electronic Transmission of Information and Data

2.13.1. The Purchaser will communicate answers to requests for clarification and amendments to this IFB to the prospective Bidders as soon as practicable.

2.13.2. Bidders are advised that the Purchaser will rely exclusively on email communication to manage all correspondence related to this IFB, including IFB amendments and clarifications.

2.13.3. Bidders are cautioned that electronic transmission of documentation which contains classified information is not allowed.

## 2.14. Supplemental Agreements

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

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

2.14.3. 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 cancelling an executed Contract if it is discovered that the terms of such Supplemental Agreements contradict salient conditions of the Prospective Contract to the extent that either key objectives cannot be accomplished or basic Contract principles and Purchaser rights have been abridged.

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

2.15.1. Bidders are instructed to review Article 17, *Intellectual Property*, of the Contract Special Provisions set forth in Part III of Book II, and Clause 30, *Intellectual Property*, of the Contract General Provisions set forth in Part III of Book II. These Clauses set forth the definitions, terms and conditions regarding the rights of the Parties concerning Intellectual Property developed and/or delivered under this Contract or used as a basis of development under this Contract.

2.15.2. Bidders are required to disclose, in accordance with the Certificates at Annex B-10 and Annex B-11, the Intellectual Property proposed to be used by the Bidder that will be delivered with either Background Intellectual Property Rights or Third Party Intellectual Property Rights. Bidders are

required to identify such Intellectual Property and the basis on which the claim of Background or Third Party Intellectual Property is made.

2.15.3. Bidders are further required to identify any restrictions on Purchaser use of the Intellectual Property that is not in accordance with the definitions and rights set forth in Clause 30 of the Contract General Provisions, or any other provision of the Contract concerning use or dissemination of such Intellectual Property.

2.15.4. Bidders are reminded that restrictions on use or dissemination of Intellectual Property conflicting with Article 17 of the Contract Special Provisions, Clause 30 of the Contract General Provisions or with the objectives and purposes of the Purchaser as stated in the Prospective Contract shall result in a determination of a non-compliant Bid.

## 2.16. Receipt of an Unreadable Electronic Bid

2.16.1. 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 CO shall immediately notify the Bidder that the bid will be rejected unless the Bidder provides clear and convincing evidence:

2.16.1.1. of the content of the bid as originally submitted, and;

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

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

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

# SECTION 3 BID PREPARATION INSTRUCTIONS

## 3.1. General

3.1.1. Bidders shall prepare and submit their bid in accordance with the requirements and format set forth in this IFB. Compliance with all bid submission requirements is mandatory. Failure to submit a bid in conformance with the stated requirements may result in a determination of non-compliance by the Purchaser and the elimination of the bid from further consideration.

3.1.2. Bidders **shall not simply restate the IFB requirements**. A Bid shall demonstrate that the Bidder understands the terms, conditions and requirements of the IFB and shall demonstrate the Bidder's ability to provide all the services and deliverables listed in the Schedules of the prospective Contract. Bidders shall take note of paragraph 3.1.3 below in this regard.

3.1.3. Bidders are informed that the quality, thoroughness and clarity of the Bid will affect the overall scoring of the bid. 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 Best Value score.

3.1.4. Partial bids and/or bids containing conditional statements will be declared non-compliant. Please note that bidders are not obligated to bid on both the Front-end User Interface and the Back-end Data Management contracts. These will be separate contracts, and so bidding on only one of them is not considered partial bidding.

3.1.5. 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.

3.1.6. The specific format for each volume is stated in paragraph 3.2.1.

3.1.7. All documentation submitted as part of the bid shall be classified no higher than "NATO UNCLASSIFIED".

3.1.8. All notices and communications regarding this IFB shall be written and conducted in English. All documentation submitted as part of the bid shall be in English.

## 3.2. Bid Package Content

3.2.1. A complete bid submission shall consist of three volumes as shown in the following table.

| Volume | Format and Quantity Details |
|---|---|
| I: Bid Administration | <u>2 PDF files that include:</u><br>1. The completed, signed certificates found in Annex B, provided as a single PDF file.<br>2. A copy of the Bid Guarantee. Note: this shall also be delivered by email directly to:<br>*NCIAFinanceTreasuryBankGuarantee@ncia.nato.int*<br>➢ All of the required contents are detailed in Section 3.4. |
| II: Price | <u>1 MS Excel file that includes:</u><br>1. The completed Bidding Sheets template provided in Annex A-3 or Annex A-4.<br>➢ All of the required contents are detailed in Section 3.5. |
| III: Technical | <u>1 Zip file, which includes 3 folders, organized as follows:</u><br>1. Part 1: Engineering<br>2. Part 2: Management<br>3. Part 3: Supportability<br>➢ All of the required contents are detailed in Section 3.6. |

3.2.2. All emails submitted to the Purchaser shall be less than 10 MB in size.

### 3.3. Package Marking

3.3.1. The bid shall be consolidated into one email and sent to the correct Bid Delivery email address stated in paragraph 2.3.3. The email shall have the following subject lines:

For bids for the User Application, Front-end contract:

- 14873-INTELFS-UA Front-end Bid for *Company Name*

For bids for the Data Management, Back-end contract:

- 14873-INTELFS-BE Back-end Bid for *Company Name*

3.3.2. In the event the bid must be submitted in multiple emails to stay under the size limit stated in paragraph 3.2.2, the bidder shall add “Part 1 of 2”, “Part 2 of 2” as necessary to the subject line of the email.

3.3.3. The individual electronic files sent by email shall have the names listed below. Bidders shall replace “UA/BE” below with *either* UA *or* BE, as applicable.

3.3.3.1. Volume I, Bid Administration:

- 14873-UA/BE-*Company Name*–Vol I–Admin
- 14873-UA/BE-*Company Name*–Vol I–Bid Guarantee

3.3.3.2. Volume II, Price:

- 14873-UA/BE-*Company Name*–Vol II–Price

3.3.3.3. Volume III, Technical:

- 14873-UA/BE-*Company Name*–Vol III–Tech1-SDD
- 14873-UA/BE-*Company Name*–Vol III–Tech2-PMP
- 14873-UA/BE-*Company Name*–Vol III–Tech3-IRR
- 14873-UA/BE-*Company Name*–Vol III–Tech4-DelPlan
- 14873-UA/BE-*Company Name*–Vol III–Tech5-BOE
- 14873-UA/BE-*Company Name*–Vol III–Tech6-Quals
- 14873-UA/BE-*Company Name*–Vol III–Tech7-CMP
- 14873-UA/BE-*Company Name*–Vol III–Tech8-ILS
- 14873-UA/BE-*Company Name*–Vol III–Tech9-QP

- 14873-UA/BE-*Company Name*–Vol III–Tech10-SupCase
- 14873-UA/BE-*Company Name*–Vol III–Tech11-Training

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

### 3.4. Volume I: Bid Administration

3.4.1. This volume is comprised of:

- All of the required certificates submitted as a consolidated PDF file;
- One electronic copy of the Bid Guarantee provided with the bid as well as directly to:

  *NCIAFinanceTreasuryBankGuarantee@ncia.nato.int*

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

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

3.4.3.1. Annex B-1 (Certificate of Legal Name of Bidder)

3.4.3.2. Annex B-2 (Acknowledgement of Receipt of IFB Amendments)

3.4.3.3. Annex B-3 (Certificate of Independent Determination)

3.4.3.4. Annex B-4 (Certificate of Bid Validity)

3.4.3.5. Annex B-5 (Certificate of Exclusion of Taxes, Duties and Charges)

3.4.3.6. Annex B-6 (Comprehension and Acceptance of Contract Special and General Provisions)

3.4.3.7. Annex B-7 (Disclosure of Requirements for NCI Agency Execution of Supplemental Agreements) with the prospective text of such Agreements, as applicable.

3.4.3.8. Annex B-8 (Certificate of Compliance AQAP 2110 or ISO 9001:2015 or Equivalent) with a copy of the relevant quality certification attached to it.

3.4.3.9. Annex B-9 (List of Prospective Subcontractors)

3.4.3.10. Annex B-10 (Bidder Background IPR)

3.4.3.11. Annex B-11 (List of Subcontractor IPR)

3.4.3.12. Annex B-12 (Certificate of Origin of Equipment, Services, and Intellectual Property)

3.4.3.13. Annex B-13 (List of Proposed Key Personnel)

3.4.3.14. Annex B-14 (Certificate of Price Ceiling)

3.4.3.15. Annex B-15 (Disclosure of Involvement of Former NCI Agency Employment)

3.4.3.16. Annex B-16 (Code of Conduct: Post Employment Measures)
Please note this annex does not need to be signed; it is referenced in Annex B-15.

## 3.5. Volume II: Price

3.5.1. This volume is comprised of the completed Bidding Sheets Excel file provided with this IFB:

- For the Front-end User Applications bid: 03-IFB-CO-14873-INTELFS2-UA Book I Bidding Sheets

  Or

- For the Back-end Services bid: "04-IFB-CO-14873-INTELFS2-BE Book I Bidding Sheets

3.5.2. The Schedule of Supplies and Services Excel files will be completed by the Purchaser prior to contract award and does not need to be completed as part of the Bid.

3.5.3. General Rules

3.5.3.1. The total prices of each bid shall not exceed the ceilings stated below. Bids submitted in excess of this ceiling may be determined to be non-compliant and eliminated from further consideration. These ceilings do not include the maximum 5% incentive fee.

3.5.3.1.1. For the User Applications bid (IFB-CO-14873-INTELFS2-UA) Bidders are advised that the total price shall not exceed a ceiling of EUR 17,510,454 for the entire contract – the development phase in CLINs 1–4 as well as the optional five years of O&M support in CLIN 5. This does not include the incentive fee.

3.5.3.1.2. For the Backend Services bid (IFB-CO-14873-INTELFS2-BE) Bidders are advised that the total price shall not exceed a ceiling of EUR 23,178,132 for the entire contract – the development phase in CLINs1-5 as well as the optional five years of O&M support in CLIN 6. This does not include the incentive fee.

3.5.3.2. Bidders shall prepare their Price Volume by completing the Bidding Sheets referenced in Section A-3 and/or Section A-4 in accordance with the instructions specified in Annex A.

3.5.3.3. The structure of the Bidding Sheets shall not be changed, other than as indicated in these instructions, 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 including but not limited to those expressed in the SOW and the System Requirement Specification (SRS).

3.5.3.4. Bidders shall not change the amount of the 5% incentive. This is a mandatory part of the bid.

3.5.3.5. With the exception of any pre-populated Not-to-Exceed amounts, Bidders shall furnish Firm Fixed Prices for all required items in accordance with the format set forth in the Instructions for preparation of the Bidding Sheets. This includes Firm Fixed Prices for all optional CLINs.

3.5.3.6. Offered prices shall not be “conditional" in nature. Any comments supplied in the Bidding Sheets which are conditional in nature, relative to the offered prices, may result in a determination that the Bid is non-compliant.

3.5.3.7. 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.

3.5.3.8. 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:

3.5.3.8.1. The currency is of a "Participating Country" in the project, and

3.5.3.8.2. 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.

3.5.3.9. The Purchaser, by virtue of his 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.

3.5.3.10. 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.

3.5.3.11. Unless otherwise specified in the instructions for the preparation of Bidding Sheets in Annex A, 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.

3.5.3.12. The Bidder’s attention is directed to the fact that the Price Volume 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. Volume III: Technical

3.6.1. This volume is submitted in one Zip file, which contains all of the various parts described in this section.

3.6.1.1. Part 1: Engineering Proposal, as described in section 3.6.4.

3.6.1.2. Part 2: Management Proposal, as described in section 3.6.5.

3.6.1.3. Part 3: Supportability Proposal, as described in section 3.6.6.

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

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

3.6.4. PART 1: ENGINEERING SECTION

3.6.4.1. The Engineering Proposal shall include:

3.6.4.2. For each Work Package of the Contract (excluding the optional 3rd and 4th level SW Maintenance and Support WP) a Draft Delivery Plan that includes the Solution Description Document (SDD).

3.6.4.2.1. The Bidder shall provide a draft Solution Description Document (SDD) in accordance with SOW section 2.5.3.2 that is enabling evaluation against criteria in section 4.5.2.1 (Note: Service Specifications are not requested).

3.6.4.2.2. **For IFB-CO-14873-INTELFS2-UA only:** the Bidder shall in the draft SDD include User Interface (UI) wireframes or mock-ups for the BMD JIPOE Application, the Analysis Application, Collection Requirements Management Application, and the Collection & Exploitation Planning Application.

3.6.4.2.3. **For IFB-CO-14873-INTELFS2-BE only**: the Bidder shall in the draft SDD describe the approach to be used for round-trip engineering to ensure consistency between the information model, the source code, and domain values.

3.6.5. PART 2: MANAGEMENT SECTION

3.6.5.1. The Management Proposal shall include:

3.6.5.2. Bidder Qualifications

3.6.5.2.1. The Bidder shall provide sufficient documentation on the Bidders Qualifications enabling evaluation against the criteria in section 4.5.3.4.

3.6.5.3. Draft Project Management Plan (PMP)

3.6.5.3.1. The Bidder shall provide a draft PMP in accordance with SOW Section 2.5.2.1 (please note that **all** information as defined by the SOW for the PMP shall be provided).

3.6.5.3.2. The Bidder shall provide proof of the Bidder's premises being authorized and certified to handle information (physically and electronically) at the NATO Restricted level.

3.6.5.4. Initial Risk Register

3.6.5.4.1. The Bidder shall provide an initial Risk Register for the project in accordance with SOW Section 2.5.2.2, where identified risks shall be properly described and processed (i.e. all relevant/ feasible information for the risk shall be provided in the Risk Register).

3.6.5.5. Basis of Estimate (BOE)

3.6.5.5.1. The purpose of the BOE is to enable the Purchaser to accurately validate the Management Proposal outside the Price Evaluation Process.

3.6.5.5.2. The Bidder shall provide a BOE for all Work Packages in the respective Contract (including BOE for the Optional 3rd and 4th level SW Maintenance and Support Work Package) that enables evaluation against the criteria in section 4.5.3.7.

3.6.5.5.3. The BOE shall solely provide level of effort estimates.

3.6.5.5.4. The BOE breakdown in accordance with the Bidding Sheet shall be all encompassing (include all efforts in delivering the deliverables). I.e. the effort estimates shall be directly correlated with the cost of the deliverables and once given the correlation factor it shall be possible to calculate the price of the deliverables.

3.6.5.5.5. The BOE shall not reveal any pricing information; e.g. the BOE shall not include cost per function point, or unit labour rates, or the above-mentioned correlation factor, etc.

3.6.6. PART 3: SUPPORTABILITY

3.6.6.1. Draft Configuration Management Plan

3.6.6.1.1. The Bidder shall provide a draft Configuration Management Plan (CMP) in accordance with SOW section 2.5.2.4 that enables evaluation against criteria in section 4.5.4.3.

3.6.6.2. Draft and General Integrated Logistic Support (ILS) Plan

3.6.6.2.1. The Bidder shall provide a draft ILS Plan in accordance with SOW section 2.3.2, including an initial Logistics Support Analysis (LSA), that enables evaluation against the criteria in section 4.5.4.4.

3.6.6.3. Draft Support Case

3.6.6.3.1. The Bidder shall provide a draft Support Case in accordance with SOW section 2.3.4.3 that enables evaluation against criteria in section 4.5.4.5.

3.6.6.4. Draft Training Plan

3.6.6.4.1. The Bidder shall provide a draft Training Plan in accordance with SOW section 2.3.5.1 that enables evaluation against criteria in section 4.5.4.6.

3.6.6.5. Draft Quality Plan

3.6.6.5.1. The Bidder shall provide a draft Quality Plan (QP) in accordance with SOW section 2.2 that enables evaluation against criteria in section 4.5.4.7.

## 3.7. Bidder's Checklist

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.

### Volume 1: Bid Administration

| | Item | Format |
|---|---|---|
| **1** | Annex B-1: Certificate of Legal Name of Bidder | One PDF file |
| **2** | Annex B-1: Acknowledgment of Receipt of IFB Amendments | |
| **3** | Annex B-3: Certificate of Independent Determination | |
| **4** | Annex B-4: Certificate of Bid Validity | |
| **5** | Annex B-5: Certificate of Exclusion of Taxes, Duties, and Charges | |
| **6** | Annex B-6: Comprehension and Acceptance of Contract Special and General Provisions | |
| **7** | Annex B-7: Disclosure of Requirements for the NCI Agency Execution of Supplemental Agreements | |
| **8** | Annex B-8: Certificate of Compliance AQAP 2110 or ISO 9001:2015 or Equivalent | |
| **9** | Annex B-9: List of Prospective Sub-Contractors | |
| **10** | Annex B-10: Bidder Background IPR | |
| **11** | Annex B-11: List of Third Party IPR | |
| **12** | Annex B-12: Certificate of Origin of Equipment, Services, and Intellectual Property | |
| **13** | Annex B-13: List of Proposed Key Personnel | |
| **14** | Annex B-14: Certificate of Price Ceiling | |
| **15** | Annex B-15: Disclosure of Involvement of Former NCI Agency Employment | |
| **16** | Annex B-16: NCI Agency AD. 05.00, Code of Conduct: Post Employment Measures<br>Information only. Not required to be submitted | |
| **17** | Annex C: Bid Guarantee | One copy as a PDF file; also submitted as required in 3.2.1 |

### Volume 2: Price

| | Item | Format |
|---|---|---|
| **1** | Completed Bidding Sheets, contained in:<br>03_IFB-CO-14873-INTELFS2-UA<br>or<br>04_IFB-CO-14873-INTELFS2-BE<br>Book I Annex A – Bidding Sheets.xlsx | One copy of the full and complete price volume shall be in MS Excel format, which can be manipulated (i.e. not an image) |

### Volume 3: Technical

| | Item | Format |
|---|---|---|
| **1** | **Engineering Section** | |
| | **a.** Draft Solution Description Document (SDD) | One PDF file |
| **2** | **Management Section** | |
| | **a.** Bidder Qualifications | One PDF file |
| | **b.** Draft Project Management Plan (PMP) | One PDF file |

| | | |
|---|---|---|
| | **c.** Initial Risk Register | One MS Excel file |
| | **d.** Basis of Estimate (BOE) | One MS Excel file |
| | **e.** Draft Delivery Plans for all Work Packages | One PDF file |
| **3** | **Supportability Section** | |
| | **a.** Draft Configuration Management Plan | One PDF file |
| | **b.** Draft and General Integrated Logistic Support (ILS) Plan | One PDF file |
| | **c.** Draft Support Case | One PDF file |
| | **d.** Draft Training Plan | One PDF file |
| | **e.** Draft Quality Plan | One PDF file |

# 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 specified in this IFB.

4.1.2. All bids will be evaluated solely using the formula, evaluation criteria and factors contained herein. Technical Proposals will be evaluated strictly against the technical criteria and not against other Technical Proposals submitted.

4.1.3. The evaluation of bids and the determination as to the Best Value Score will be based only on that information furnished by the Bidder and contained in its Bid. The Purchaser shall not be responsible for locating or securing any information that is not identified in the Bid.

4.1.4. The Bidder shall furnish with his Bid all information requested by the Purchaser in Book I, Section 3, Bid Preparation Instructions. Significant omissions and/or cursory submissions will result in a reduced Best Value Score and may result in a determination of non-compliance without recourse to further clarification. The information provided by the Bidder in its proposal shall be to a level of detail necessary for the Purchaser to fully comprehend exactly what the Bidder proposes to furnish as well as its approach and methodologies.

4.1.5. 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 his 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 his price quotation at any time.

4.1.6. The Purchaser reserves the right, during the evaluation and selection process, to verify any statements made concerning experience, facilities, or existing designs or materials by making a physical inspection of the Bidder's facilities and capital assets. This includes the right to validate, by physical inspection, the facilities and assets of proposed subcontractors.

4.1.7. The evaluation will be conducted in accordance with NATO Infrastructure Bidding Procedures as set forth in the document, and the Best Value evaluation procedures set forth in AC/4-D(2008)0002-REV2, “Procedures and Practices for Conducting NSIP International Competitive Bidding Using Best Value Methodology”, with the exception described in paragraph 4.3.1.2. The bid evaluation methodology to be followed,

including the top-level evaluation criteria and their weighting factors, were agreed by the Host Nation.

## 4.2. Best Value Award Approach and Bid Evaluation Factors

4.2.1. The Contract resulting from this IFB will be awarded to the Bidder whose conforming offer provides the Best Value to NATO, as evaluated by the Purchaser in compliance with the requirements of this IFB and according to the evaluation method specified in this section.

4.2.2. The top level criteria are 60% Technical and 40% Price.

4.2.3. Technical Scoring

4.2.3.1. The 2nd level criteria for the technical evaluation are:

4.2.3.1.1. Engineering (E): 50% weight, based on the criteria listed in order of descending importance (that is, most important listed first) in section 4.5.2.

4.2.3.1.2. Management (M): 30% weight, based on the criteria listed in order of descending importance in section 4.5.3.

4.2.3.1.3. Supportability (S): 20% weight, based on the criteria listed in order of descending importance in section 4.5.4.

4.2.3.2. The Technical Score will be calculated using the following formula:

TS = (50%*Engineering Score) + (30%*Management Score) + (20%*Supportability Score)

4.2.4. Price Scoring

4.2.4.1. The Price Score (PS) will be calculated using the following formula:

PS = 100 * (1-(Bid Price / (2*Average Bid Price)))

4.2.4.2. The “Bid Price” and the “Average Bid Price“ will be calculated based on the sum of the proposed prices as defined in section 4.6.4.2.

4.2.4.3. Only those bids evaluated as compliant in both the Administrative and Technical evaluations will be used in the calculation of the Price Score. Therefore, the price scores cannot be calculated until after the technical evaluations are complete.

4.2.4.4. Bidders shall note that any Bid in excess of the stated ceiling price set forth in paragraph 3.5.3.1 may not be scored as the Bid may be determined to be non-compliant.

4.2.5. Best Value Final Scoring

4.2.5.1. The Best Value final score (FS) will be the sum of the weighted Technical Score (TS) and weighted Price Score (PS), according to the following formula:

FS = (TS*60%) + (PS*40%)

4.2.5.2. The maximum possible Best Value Score is 100. The Bid with the highest Best Value Score will be recommended to be the Apparent Successful Bidder.

4.2.6. A weighting scheme for sub-criteria values has been developed by Purchaser staff not associated with the Technical Evaluation. This weighting scheme has been sealed and is not known to any of the Purchaser staff beyond the originator and the Chairman of the Contracts Award Board, who are not evaluators within the framework of this IFB or in any manner or form are made privy of evaluation information throughout the course of the evaluation process. The weighting scheme remains sealed until Step 4 of the evaluation process, described in paragraph 4.7.

## 4.3. Evaluation Procedure

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

4.3.1.1. Step 1: Administrative Compliance

4.3.1.1.1. Bids received will be reviewed for compliance with the mandatory administrative requirements specified in paragraph 4.4. Bids not meeting all of the mandatory administrative requirements may be determined to be non-compliant and not considered for further evaluation.

4.3.1.2. Step 2: Parallel Technical and Price Evaluations

4.3.1.2.1. In Step 2, the Technical and Price evaluations will be performed in parallel. That is, independent teams of evaluators will evaluate the bids as described in Sections 4.5 and 4.6 at the same time, instead of waiting for the technical evaluations to be completed before opening the price volumes. However, the final price scores cannot be calculated until after the technical evaluations are complete, since the price score only includes those proposals evaluated as technically compliant.

4.3.1.2.2. Bidders are advised that, since the evaluations are being conducted in parallel, they should not assume that they have been evaluated as technically compliant if they receive a clarification request regarding the Price volume.

4.3.1.2.2.1 Step 2A: Technical Evaluation

4.3.1.2.2.1.1 The Technical volumes will be evaluated against predetermined top-level criteria and identified sub-criteria (see paragraph 4.2.3 above), and scored accordingly. This evaluation will result in “raw” or unweighted technical scores against the criteria.

4.3.1.2.2.1.2 Bidders are advised that any Bid whose Technical Proposal receives a score of less than 20% of the total unweighted raw score possible in any of the sub-criteria listed in Section 4.5 of this document may be determined by the Purchaser to be non-compliant and not considered for further evaluation.

4.3.1.2.2.2 Step 2B: Price Evaluation

4.3.1.2.2.2.1 The Price volumes will be opened and evaluated in accordance with section 4.6.

4.3.1.2.2.3 Step 3: Determination of Apparent Successful Bidder

4.3.1.2.2.3.1 Upon completion of the Technical and Price evaluations, the scores of the Bids considered to be technically compliant will be calculated. The Apparent Successful Bid will be determined in accordance with paragraph 4.7.

## 4.4. Evaluation Step 1 - Administrative Compliance

4.4.1. Bids will be reviewed for compliance with the formal requirements for Bid submission as stated in this IFB and the content of the Bid Administration Volume. The evaluation of the Bid Administration Volume will be made on its completeness, conformity and compliance to the requested information. This evaluation will not be scored in accordance with Best Value procedures but 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:

4.4.1.1. The Bid was received by the Bid Closing Date and Time,

4.4.1.2. The Bid is packaged and marked properly,

4.4.1.3. The Bid Administration Volume contains the documentation listed in paragraph 3.3.1 and complies with the formal requirements established in paragraph 3.1.

4.4.1.4. The Bidder has not taken exception to the Terms and Conditions of the Prospective Contract or has not qualified or otherwise conditioned his offer on a modification or alteration of the Terms and Conditions or the language of the Statement of Work.

4.4.1.5. **Receipt of an unreadable electronic bid**. If a bid received by email is unreadable to the degree that conformance to the essential requirements of the solicitation cannot be ascertained, the CO immediately shall notify

the Bidder that the bid will be rejected unless the Bidder provides clear and convincing evidence:

4.4.1.5.1. Of the content of the bid as originally submitted; and,

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

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

4.4.3. Bids that are determined to be administratively compliant will proceed to Step 2A, Technical Evaluation, and Step 2B, Price Evaluation.

4.4.4. Notwithstanding paragraph 4.4.3, if it is later discovered in the evaluation of the Bid Administration Volume, Technical Volume or the Price Volume that the Bidder has taken exception to the Terms and Conditions of the Prospective Contract, or has qualified and/or otherwise conditioned his offer on a modification or alteration of the Terms and Conditions or the language of the Statement of Work, the Bidder may be determined to have submitted a non-compliant Bbd at the point in time of discovery.

## 4.5. Evaluation Step 2A – Technical Evaluation

4.5.1. The Technical Proposal will be evaluated against the criteria set forth in this section. For some sub-criteria, there may be additional supporting factors at the next lower level. These lower level factors are not published in this IFB but are predetermined and included in the Technical Evaluation Weighting Scheme sealed before Bid Opening. The following paragraphs identify the aspects to be examined in the Technical Proposal evaluation and rating.

4.5.2. PART 1: ENGINEERING

4.5.2.1. The criteria used to evaluate Part 1, Engineering are listed in descending order of importance.

4.5.2.2. The criteria of high importance will have higher weighting factors than the criteria of lower importance.

4.5.2.2.1. The draft SDD provides information on the proposed solution to a level of detail that enables the Purchaser to assess the solution’s feasibility and ability to fulfil the requirements as defined by the SRS.

4.5.2.2.2. The proposed solution describes a solution architecture that addresses, and fulfils, the non-functional requirements (NFR) as defined in the SRS. The compliance with the NFRs are individually assessed and justified through the solution design.

4.5.2.2.3. For **IFB-CO-14873-INTELFS2-BE**: The draft SDD demonstrates a sound approach to round-trip engineering and synchronizing of the SW implementation (source code) with the maintenance of the Information Model; ideally by implementing an automatic forward-transformation from the Information Model to solution artefacts (source code, database mapping, application programming interface (API), etc.).

4.5.2.2.4. For **IFB-CO-14873-INTELFS2-BE**: The draft SDD describes how the proposed solution to the maximum extent possible/ practicable will make use of the services provided by the Bi-SC AIS SOA Platform including:

- Identity and Security Services
- Integration Services with reference to the platform integration domain specific language (DSL) based on the well-known Enterprise Application Integration Patterns
- Hosting Services to include a description of the proposed level of hosting, scheduling, elasticity, etc.
- Service Management and Control services including logging, alerting, log aggregation/ analytics, reporting, monitoring and message tracking.
- Platform services for realization of Non-Functional Requirements with particular emphasis on Performance, Scalability, Reliability, Resilience, Continuity of Service, Disaster Recovery and Availability

4.5.2.2.5. For **IFB-CO-14873-INTELFS2-UA**: The proposed solution includes off-the-shelf and high-performance UI components with rich functionality for the Table View, Relationship View, Gantt View, and Chart View delivering to the maximum extent off-the-shelf implementation of functionality as defined by SRS chapter 2, and where these UI components can be integrated into an Angular 9 (or higher) framework

4.5.2.2.6. For the **IFB-CO-14873-INTELFS2-UA**: UI mock-ups/ wireframes are provided for the BMD JIPOE Application, the Analysis Application (with a detailed elaboration of the visual Graph Query Builder), Collection Requirements Management Application, and the Collection & Exploitation Planning Application. The UI mock-ups/ wireframes demonstrates a good understanding of the functionality to be implemented within these four applications, and the described UI is compliant with the general UI requirements in SRS chapter 2.

4.5.2.2.7. For **IFB-CO-14873-INTELFS2-BE**: The proposed solution describes a sound approach to eventual consistency in a distributed (multi-instance) environment configuration (i.e. in a high availability and robustness configuration).

4.5.2.2.8. The proposed solution demonstrates that the Bidder's technology choices have taken the risk of technology obsolescence, technology proliferation and life-cycle supportability into consideration.

4.5.2.2.9. The draft SDD describes a sound approach to Continuous Integration (CI) and Continuous Delivery (CD) adapted for the capability to be delivered and for usage within the NATO Software Factory. The SDD describes what type of tests will be automated, and how the automated tests will be implemented, as well as how the reporting of such tests will be automated.

4.5.2.2.10. The draft SDD demonstrates an approach to the software development that will ensure a high degree of test automation (e.g. using behaviour driven development (BDD) and/ or Acceptance Test Driven Development (ATDD) methodologies).

4.5.2.2.11. For **IFB-CO-14873-INTELFS2-UA**: The proposed solution does not introduce any backend processing services and is implemented fully as a browser-based client application. The only exceptions from this rule will be the User Management Application where server side functionality might be required, and the maintenance of the INTEL-FS Spiral 1 legacy backend in Phase 1.

4.5.2.2.12. The draft SDD elaborates all fundamental solution decisions in accordance with the requirements defined in SOW section 2.5.3.2.

4.5.2.2.13. For any COTS and FOSS components and libraries used in the solution the SDD provides details on Vendor Name, Product Name, SW version, and lifecycle cost and constraints (license/ subscription fee, licence type, etc.)

4.5.2.2.14. The draft Delivery Plan (one for each work package) includes a draft Work Breakdown Structure (WBS) with a schedule in accordance with SOW Section 2.5.3.1 for the full scope of the project (excluding the optional WP for 3rd and 4th level Maintenance and Support). I.e. identifying start and end date for each of the increments in the work package, and identifying the deliverables allocated to increments.

4.5.2.2.15. The format and content of the draft SDD complies with the requirements defined in SOW section 2.5.3.2, and contains a confirmation that all requirements of the SRS are met by the proposed solution (Note: service specification, if applicable for the solution, are not expected for the draft SDD).

4.5.3. PART 2: MANAGEMENT

4.5.3.1. The criteria used to evaluate Part 2, Management are listed in descending order of importance.

4.5.3.2. Within those criteria, all of the sub-criteria are also listed in order of descending importance.

4.5.3.3. The criteria of high importance will have higher weighting factors than the criteria of lower importance.

4.5.3.4. Bidder Qualifications

4.5.3.4.1. The Bidder demonstrates strong experience in the area of design, delivery, implementation and support of similar software-based systems.

4.5.3.4.2. The Bidder demonstrates that the members of its project technical and implementation team possess strong education, experience and qualifications directly relevant to the needs of this Contract and in accordance with the SOW Section 3.1.

4.5.3.4.3. The Bidder demonstrates that its Project Manager, Quality Assurance Manager, and Configuration Manager possess strong education, experience and qualifications in accordance with the SOW Section 2.1.1.

4.5.3.4.4. The Bidder provides resumes (2-page limit per resume) of the individuals designated as Key Personnel in Contract Special Provision Annex B.

4.5.3.4.5. The Bidder provides two relevant examples (2 pages max each) including a description of the solution deployed/delivered, the expertise/experience highlighting similarities to the bid solution; the purchaser(s) of these systems; the user(s) of these systems; the Contract number(s); the start date and end date of the Contract; a point of contact for verification purposes.

4.5.3.5. Draft Project Management Plan (PMP)

4.5.3.5.1. The proposed project organization and project management methodology (for Agile execution) and control processes demonstrate Bidder’s ability to implement the entire project in conformance with the requirements as specified in the SOW.

4.5.3.5.2. The scope of work to be performed by the prime contractor versus subcontractors is clearly defined.

4.5.3.5.3. The Bidder has provided proof of the Bidder’s premises being authorized and certified to handle information (physically and electronically) at the NATO Restricted level.

4.5.3.5.4. The Draft PMP is in accordance with the SOW requirements.

4.5.3.6. Initial Risk Register

4.5.3.6.1. The initial Risk Register level does not raise concerns. The risk level is not too high (this could indicate that the Bidder will not be able to deliver). The Bidder is taking ownership of the risks instead of making NATO responsible for the majority of them.

4.5.3.6.2. The initial Risk Register contains a set of probable risks that demonstrates that the Bidder has a good understanding of the complexities and dependencies inherent in the project.

4.5.3.6.3. The risks in the initial Risk Register are all properly addressed with a risk identifier, description of the risk, impact analysis, probability assessment, mitigation measures, risk owner, etc.

4.5.3.7. Basis of Estimate (BOE)

4.5.3.7.1. The BOE provides realistic effort and duration estimates for all of the deliverables in the Bidding Sheet to demonstrate a good understanding of the complexity and level of effort of work to be conducted.

4.5.3.7.2. The BOE provides level of effort estimates for all of the deliverables as defined in the Bidding Sheet.

4.5.3.7.3. The BOE provides estimates of the duration for all of the deliverables as defined in the bidding sheet.

4.5.4. PART 3: SUPPORTABILITY

4.5.4.1. The criteria used to evaluate Part 3, Supportability, are listed in descending order of importance.

4.5.4.2. Within those criteria, all of the sub-criteria are also listed in order of descending importance.

4.5.4.3. Draft Configuration Management Plan (CMP)

4.5.4.3.1. The CMP demonstrates that the CM function is properly resourced, and organized with well-defined roles and responsibilities in accordance with SOW 2.5.2.4.

4.5.4.3.2. The CMP details the Configuration Management Database (CMDB) solution and demonstrates that the CMDB solution will fulfil the requirements defined in SOW 2.1.5.1.

4.5.4.3.3. The CMP is compliant with "*ACMP-2009-SRD-41: Examples of CM Plan Requirements, Edition A, Version 1, March 2017, NATO Standardization Office (NSO)*" in format and content, and clearly identifies requirements that the bidder deems not applicable to this contract as not applicable (N/A). Note: there should not be many such N/A requirements.

4.5.4.3.4. The CMP has been tailored to address the Agile character of this project execution.

4.5.4.3.5. The CMP identifies and defines all top-level configuration items (CI) to be delivered under this Contract and where these top-level CIs are traced to deliverables as defined in the SSS.

4.5.4.3.6. The CMDB solution as described in the CMP includes integration with the NATO Software Factory tooling and support DevOps practices (e.g. including deployment configurations and automated deployment scripts as Configuration Items).

4.5.4.3.7. The CMP includes a proposed ECP format that has been tailored to Agile project execution.

4.5.4.3.8. The CMP includes a proposed format for Request for Deviation/ Request for Waiver that is suitable for use in the Contract.

4.5.4.4. Draft and General Integrated Logistic Support (ILS) Plan

4.5.4.4.1. The draft Integrated Logistics Support Plan is provided in accordance with the SOW requirements in Section 2.3 including the required sub-sections and content with sufficient details to demonstrate the Bidder's ability to perform the ILS activities.

4.5.4.4.2. The Bidder demonstrates its understanding and compliance with all the SOW requirements by creating appropriate subsections and detailing the requirements with actual proposed activities.

4.5.4.4.3. The Bidder provides a detailed approach for the Design Influence (RAMT and LSA) areas for the actual analyses, documenting the analysis, tools, skills and relation with SRS and design in general.

4.5.4.4.4. The Bidder details the different Maintenance and Support Levels, the interfaces between these different levels, maintenance and support environment, constraints, locations, procedures, artefacts, organisation, personnel skills, related ITIL processes and responsibilities between different parties to maintain the delivered baselines of the system in different phases of the lifecycle, as defined in SOW Section 2.3.

4.5.4.4.5. The Bidder details its approach for the warranty and optional support requirements, details the activities based on each party's responsibilities including the proposed services, response times, organization and planning in accordance with the SOW requirements in Section 2.3.

4.5.4.4.6. The Bidder demonstrates that all ILS activities and milestones are integrated into the project delivery schedules.

4.5.4.5. Draft Support Case

4.5.4.5.1. The Bidder provides a draft Support Case, as detailed in SOW Section 2.3.4.3. The Support Case shall provide sufficient details to show the Bidder’s approach and capability to perform the required LSA and RAMT studies, including how the proposed design shall take the SOW and SRS RAMT requirements into consideration.

4.5.4.5.2. The Bidder demonstrates its understanding and compliance with the Support Case requirements by creating appropriate subsections and detailing the requirements with actual proposed activities to show the Bidder’s approach and capability to perform the required LSA and RAMT studies, including how the proposed design shall take the SOW and SRS RAMT requirements into consideration.

4.5.4.6. Draft Training Plan

4.5.4.6.1. The draft Training Plan defines the training courses that will be delivered and how these courses will be conducted in accordance with Section 2.3.5.1 of the SOW.

4.5.4.6.2. The Bidder demonstrates its understanding and compliance with Training Program requirements by explaining how the Bidder will schedule, resource and manage the various training requirements (training schedule, training courses and material, training tools, media, training personnel, training reviews, meetings, assessment, evaluation and reporting) starting from the contract award until the acceptance.

4.5.4.7. Draft Quality Plan

4.5.4.7.1. The Draft Quality Plan (QP) demonstrates that the Quality management processes are in place for the project, in accordance with the requirements defined by AQAP-2110.

4.5.4.7.2. The Draft QP demonstrates that the Quality Assurance Manager has sufficient responsibility, authority, organisational freedom and independence to review and evaluate activities, identify problems and initiate or recommend appropriate corrective action.

## 4.6. Evaluation Step 2B – Price Evaluation

4.6.1. As stated in Section 4.3.1.2, the Price evaluation will be done in parallel to the Technical evaluation.

4.6.2. The Bidder's Price Quotation will be first assessed for compliance against the following standards:

4.6.2.1. For IFB-CO-14873-INTELFS2-UA the total amount of the bid (inclusive of all work packages for the basic contract and all option years) shall not exceed a ceiling of EUR 17,510,454. This amount does not include the incentive.

4.6.2.2. For IFB-CO-14873-INTELFS2-BE the total amount of the bid (inclusive of all work packages for the basic contract and all option years) shall not exceed a ceiling of EUR 23,178,132. This amount does not include the incentive.

4.6.2.3. The Price Quotation meets the requirements for preparation and submission of the Price Quotation set forth in the Bid Preparation Section and the Instructions for Preparation of the Bidding Sheets in Annex A.

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

4.6.2.5. The Price Quotation meets requirements for price realism and balance as described below in paragraph 4.6.5.

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

4.6.4. Basis of Price Comparison

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

4.6.4.2. The **Evaluated Bid Price** to be inserted into the formula specified at paragraph 4.2.4.1 will be derived as follows:

- For IFB-CO-14873-INTELFS2-UA User Applications: The sum of the Firm Fixed Prices proposed for CLINs 1-5 as detailed below:

| CLIN Number | CLIN Name |
|---|---|
| 1.0 | Externalized User Account Management |
| 2.0 | Upgrade existing User Interfaces (UI) and add UI for BMD OPFOR ORBAT Management |
| 3.0 | New User Interfaces |
| 4.0 | Full integration with new backend API |
| 5.0 | 3rd Level Support (SW Corrective Maintenance) |

- For IFB-CO-14873-INTELFS2-BE Backend Services: The sum of the Firm Fixed Prices proposed for CLINs 1-6 as detailed below:

| CLIN Number | CLIN Name |
|---|---|
| 1.0 | Backend services - Phase 1 |
| 2.0 | Backend services - Phase 2 |
| 3.0 | System Administration (SysAdm) tool |
| 4.0 | Integration services - I2BE source |
| 5.0 | Integration services – I2BE destination |
| 6.0 | 3rd Level Support (SW Corrective Maintenance) |

4.6.5. Price Balance and Realism

4.6.5.1. In those cases in which the prices quoted in relation with this Invitation for bid 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.

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

4.6.5.2.1. 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.

4.6.5.2.2. 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.

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

4.6.5.3. 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:

4.6.5.3.1. 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 or accept the Contract at the offered price, or to withdraw from the competition.

4.6.5.3.2. 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 convincingly and objectively describe the competitive advantage and the net savings achieved by this advantage over standard market practices and technology.

4.6.5.3.3. 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.

4.6.5.4. 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. If the Bidder responds on the basis of 4.6.5.3.1 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.

4.6.5.5. If the Purchaser accepts the Bidder's explanation of mistake in paragraph 4.6.5.3.1 and allows the Bidder to accept the Contract at the offered price, or the Purchaser accepts the Bidder's explanation

pursuant to paragraph 4.6.5.3.3 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.

4.6.5.6. If the Bidder presents a convincing rationale pursuant to paragraph 4.6.5.3.2 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.

4.6.5.7. The Agency reserves the right to request prime contractors or the subcontractors to separately identify each of the direct/indirect costs, advise why each is required, and provide supporting documentation to substantiate each charge, such as: 1) catalogue price lists and any applicable discounts, 2) copies of the Subcontractor's orders from others for the same or similar items, including explanations for cost variations, 3) Subcontractor's internal cost estimate, or documentation of whatever means the Subcontractor used to arrive at the charge.

4.6.6. Once the offered prices as described in paragraph 4.6.4.2 have been calculated and checked, the formula set forth in paragraph 4.2.4.1 above will be applied to derive the Price Score of each Bid.

## 4.7. Evaluation Step 3 – Calculation of Best Value Scores

4.7.1. Upon conclusion and approval of the Technical Evaluation and Price Evaluation results, the pre-determined weighting scheme for the Technical Evaluation will be unsealed and the scores for the Engineering, Management and Supportability factors will be calculated for each compliant bid. Then all partial scores will be fed into the formula stated in paragraph 4.2.5 in order to obtain the Best Value Score of each Bid.

4.7.2. The highest scored Bid will be recommended as the Apparent Successful Bid.

4.7.3. A statistical tie is deemed to exist when the final scores of the highest scoring bids are within one point (1.0) of each other. (For example, final scores of 67.30 and 68.30 are within one point of each other and would therefore be considered a statistical tie. Final scores of 67.30 and 68.31 are more than one point apart and would not be considered a tie.) The Purchaser will then resolve the statistical tie by awarding the contract to the Bid with the highest weighed technical score.

4.7.4. Prior to confirmation of award, the Purchaser shall invite the Bidder with the Apparent Successful Offer to one or more rounds of pre-award discussions. These discussions shall aim at clarifying and confirming,

within the boundaries of the IFB documents, any remaining topics and results in the preparation of the final contract documents.

4.7.5. Upon the successful completion of these pre-award discussions, to the Purchaser's full satisfaction, confirmation of final Bid compliance will be noted.

4.7.6. The Purchaser will deliver the final set of contract documents to the Bidder for their signature. Upon the Purchaser's countersignature of those contract documents, the contract shall be considered to be in effect.

# Annex A Bidding Sheets

## A-1 Introduction

1. Bid pricing requirements as addressed in this Annex are mandatory. Failure to abide to the bid pricing requirements included in this section may lead to the Bid being declared non-compliant and not being taken into consideration for award.

2. No alteration of the Bidding sheets – including, but not limited to quantity indications, descriptions, titles or pre-populated Not-to-Exceed amounts – are allowed with the sole exception of those explicitly indicated as allowed in this document or in the instructions embedded in the Bidding Sheets file.

3. Additional price columns may be added if multiple currencies are Bid, including extra provisions for all totals.

## A-2 General Requirements

1. Bidders are required, in preparing their Price Volume to utilise the electronic files provided as part of this IFB and referenced in Annex A-3 and/or A-4.

2. This Excel file includes detailed instructions on each tab that will facilitate bidders' preparation of the bid pricing. These instructions are mandatory.

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

4. 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.

5. All metrics (e.g., cost associated with labour) will be assumed to be standard or normalised to 7.6 hours/day, for a five-day workweek at NATO and National sites and Contractor facilities.

6. Should the Apparent Best Value Bid be in other than Euro currency, the award of the Contract will be made in the currency or currencies of the bid.

7. Bidders are advised that formulae are designed to ease evaluation of the Bidders proposal have been inserted in the electronic copies of the Bidding Sheets. Notwithstanding this, the Bidder remains responsible for ensuring that their figures are correctly calculated and should not rely on the accuracy of the formulae electronic copies of the Bidding Sheets.

8. If the Bidder identifies an error in the spreadsheet, it should notify the Purchaser through process described section 2.6. The Purchaser will then make a correction and notify all the Bidders of the update.

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

## A-3 Bidding Sheets for Front-end User Applications Bid

1. Bidders are required, in preparing their Price Volume to utilise the correct electronic Bidding Sheets file provided as part of this IFB. For the Front-end User Applications bid, this is:

   "03_IFB-CO-14873-INTELFS2-UA Book I Bidding Sheets I2UA.xls"

2. Bidders shall include this file in its proposal in the same Excel format in which it is provided in this IFB.

## A-4 Bidding Sheets for Back-end Data Management Bid

1. Bidders are required, in preparing their Price Volume to utilise the correct electronic Bidding Sheets file provided as part of this IFB. For the Back-end Data Management bid, this is:

   "04_IFB-CO-14873-INTELFS2-BE Book I Bidding Sheets I2BE.xls"

2. Bidders shall include this file in its proposal in the same Excel format in which it is provided in this IFB.

# Annex B Prescribed Administrative Forms and Certificates

## Annex 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

## Annex B-2. Acknowledgement of Receipt of IFB Amendments

I confirm that the following amendments to Invitation for Bid CO-14873-INTELFS2 have been received and the Bid, as submitted, reflects the content of such amendments.

| Amendment no. | Date of Issued | Date of receipt | Initials |
|---|---|---|---|
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| | | | |

Date

Signature of Authorised Representative

Printed Name

Title

Company

## Annex 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-14873-INTELFS2. 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;

b. 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

c. 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

## Annex 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

## Annex 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

## Annex B-6. Comprehension and Acceptance of Contract Special and General Provisions

The Bidder hereby certifies that he 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 his confirmation that he 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 he will accept and abide by the stated Contract Special Provisions and Contract General Provisions if awarded the Contract as a result of this Invitation for Bid.

_____ _____

Date Signature of Authorised Representative

_____

Printed Name

_____

Title

_____

Company

# ANNEX 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 or its legal successor 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:
*(insert list of supplemental agreements or specify "none")*

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 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

# Annex B-8. 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 AQAP 2110 or ISO 9001:2015 or equivalent 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 B-9. List of Prospective Subcontractors

| Name and Address of Sub-Bidder | DUNS Number [2] | Primary Location of Work | Items/Services to be Provided | Estimated Value of Sub-Contract |
|---|---|---|---|---|
| | | | | |
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| | | | | |
| | | | | |
| | | | | |
| | | | | |

Date

Signature of Authorised Representative

Printed Name

Title

Company

[2] 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.

## Annex B-10. Bidder Background IPR

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

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

| ITEM | DESCRIPTION |
|---|---|
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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 Article 8 of the Contract Special Provisions.

_____ _____
Date Signature of Authorised Representative

_____
Printed Name

_____
Title

_____
Company

## Annex B-11. 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 |
|---|---|
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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 Clause 30 the Contract General Provisions.

_____ _____
Date Signature of Authorised Representative

_____
Printed Name

_____
Title

_____
Company

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

The Bidder hereby certifies that, if awarded the Contract pursuant to this solicitation, he 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

## Annex B-13. List of Proposed Key Personnel

Key Personnel are not necessarily required to work full-time in that position. Therefore, it is possible for an individual to fill more than one Key Personnel role at the same time, assuming the person is qualified to perform both roles.
*Note: "SW Architect" is a Key Personnel for IFB-CO-14873-INTEL-FS2-BE (Back-End) only.*

| Position | SOW Reference | Labour Category | Name | Designation Period |
|---|---|---|---|---|
| Project Manager | | | | |
| Quality Assurance Manager | | | | |
| Configuration Manager | | | | |
| Technical Lead | | | | |
| SW Architect *(Back-end only)* | | | | |
| Scrum Master | | | | |
| Test Director | | | | |
| Lead Software Developer 1 | | | | |
| Lead Software Developer 2 | | | | |

Date

Signature of Authorised Representative

Printed Name

Title

Company

## Annex B-14. Certificate of Price Ceiling

I hereby certify that the total price offered in the Price Volume of this Bid does not exceed the price ceiling provided in paragraph 3.5.3.1 of Book I:

- EUR 17,510,454, for the Front-end User Applications contract;
- EUR 23,178,132, for the Back-end Data Management contract.

Note: All prices, or supporting pricing information, shall be included in the Price Volume only. There shall be no pricing information disclosed in the either the Bid Administration Volume or the Technical Volume.

_____ _____
Date Signature of Authorised Representative

_____
Printed Name

_____
Title

_____
Company

# Annex B-15. 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 being released 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, at any tier, working as part of the company's team preparing the Bid have not held employment with NCI Agency within the last two years.

☐ It 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-16 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 of Authorised Representative

_____
Printed Name

_____
Title

_____
Company

# Annex B-16. 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 counterparts 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 members, agents or consultants 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 from 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.

# Annex C Bid Guarantee – Standby Letter of Credit

Standby Letter of Credit Number:

Issue Date: _____

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

Expiry Date: _____

***Delete whichever paragraph 1 below does not apply.***

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 € 130,000.00 (One Hundred and Thirty Thousand Euro) . We are advised this Guarantee fulfils a requirement under Invitation for Bid IFB-CO-14873-INTELFS2-UA dated _____.

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 € 170,000.00 (One Hundred and Seventy Thousand Euro) . We are advised this Guarantee fulfils a requirement under Invitation for Bid IFB-CO-14873-INTELFS2-BE 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 NATO CI 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 NATO CI 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 NATO CI 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 NATO CI 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 NATO CI 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 NATO CI Agency Contracting Officer which states

"The NATO CI 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 NATO CI Agency from, or on behalf of (NAME OF BIDDER), and the NATO CI 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 D Clarification Request Form

## INVITATION FOR BID
## IFB-CO-14873-INTELFS2

## CLARIFICATION REQUEST FORM

**Delete whichever does not apply:**

**IFB-CO-14873-INTELFS2-UA User Applications or IFB-CO-14873-INTELFS2-BE Back-end Data Management**

Company Name _____ Submission Date_____

| **ADMINISTRATION or CONTRACTING** | | | | |
|---|---|---|---|---|
| **Serial No.** | **IFB Ref.** | **Bidder's Question** | **NCI Agency Answer** | **Status** |
| **A.1** | | | | |
| **A.2** | | | | |
| **A.3** | | | | |
| **A.4** | | | | |

**Delete whichever does not apply:**

**IFB-CO-14873-INTELFS2-UA User Applications or IFB-CO-14873-INTELFS2-BE Back-end Data Management**

Company Name _____ Submission Date_____

| **PRICE** | | | | |
|---|---|---|---|---|
| **Serial No.** | **IFB Ref.** | **Bidder's Question** | **NCI Agency Answer** | **Status** |
| **P.1** | | | | |
| **P.2** | | | | |
| **P.3** | | | | |
| **P.4** | | | | |

**Delete whichever does not apply:**

**IFB-CO-14873-INTELFS2-UA User Applications or IFB-CO-14873-INTELFS2-BE Back-end Data Management**

Company Name _____ Submission Date_____

| **TECHNICAL** | | | | |
|---|---|---|---|---|
| **Serial No.** | **IFB Ref.** | **Bidder's Question** | **NCI Agency Answer** | **Status** |
| **T.1** | | | | |
| **T.2** | | | | |
| **T.3** | | | | |
| **T.4** | | | | |

# 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.**<br><br>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.<br><br>Bidders are **REQUIRED** to complete the following tabs:<br>- **"Offer Summary"**,<br>- **"CLIN Summary"**, "WP1.1 Upgrade, "WP 1.2 UI Mock", "WP 1.3 Complete UI + New Backend", and "WP 1.4 - 3rd Level Support"<br>- **"Labour"**,<br>- **"Material"**,<br>- **"Travel"**,<br>- **"ODC",**<br>- **"Rates"**.<br>**Note that input cells in the "Offer Summary", the "CLIN Summary", "WP 1.2 UI Mock", "WP 1.3 Complete UI + New Backend", and "WP 1.4 - 3rd Level Support" tabs are colour coded YELLOW.**<br><br>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.**<br><br>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.<br><br>**Bids in MULTIPLE CURRENCIES should follow the following instructions:**<br>- For the "Offer Summary" tab bidders must add "Firm Fixed Price" column to the right of the current table for each additional currency.<br>- 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.<br>- 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**<br>**LABOUR**<br>**TRAVEL**<br>**ODCs** | Please note that for these tables (Material, Labour, Travel and ODCs), the bidder is required to provide the required information down to the **Application level only** (this is the CLIN X.1 level, for example CLIN 1.2, CLIN 2.1, CLIN 3.6, etc.) It is not necessary to further break out the costs in these tables down to the Requirement level (this is the CLIN X.1.2.3, for example CLIN 2.1.3.1, CLIN 3.6.1.1, etc.)<br><br>[The bidder is required to provide a cost down to the **Requirement level** on the WP1.1, 1.2, 1.3, and 1.4 tables. ]<br><br>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. 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.<br><br>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.<br><br>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** | - |

| | | |
|---|---|---|
| CLIN 1 | Externalized user account management | - |
| CLIN 2 | Upgrade existing User Interfaces (UI) and add UI for BM OPFOR ORBAT management | - |
| CLIN 3 | New user interfaces | - |
| CLIN 4 | Full integration with new backend API | - |
| | 1-Year Warranty | *Price included in CLINs 1-4* |
| **Total Firm Fixed Price Base Contract** | | - |

## Total Contract Summary

| CLIN | DESCRIPTION | | TOTAL PRICE |
|---|---|---|---|
| | | Currency | - |
| CLIN 1 | Externalized user account management | | - |
| CLIN 2 | Phase 1 - Upgrade existing UI and BM OPFOR ORBAT management | | - |
| CLIN 3 | Phase 2 - New user interfaces | | - |
| CLIN 4 | Phase 3 - Full integration with new backend API | | - |
| | 1-Year Warranty | | *Included in CLINs 1 to 4* |
| | | Subtotal - Basic Contract | - |
| INC1 | Maximum Incentive 1 (5%) | 5% | - |
| INC2 | Maximum Incentive 2 (5%) | 5% | - |
| | | Subtotal - Incentives | - |
| | **Total - Basic Contract** | | - |
| CLIN 5 | Optional 3rd and 4th Level Maintenance and Support (after Warranty) | | - |
| | | Subtotal - Optional Support | - |
| | **Grand Total Contract** | | - |

## Base Contract

### Phase 1 (WP 1.1)

| CLIN | Description | Value |
|---|---|---|
| | Currency | - |
| **1** | **Externalized user account management** | - |
| 1.1 | User Management Application | - |
| **2** | **Phase 1 - Upgrade existing UI and BM OPFOR ORBAT management** | - |
| 2.1 | Dashboard Application | - |
| 2.2 | Products Management Application | - |
| 2.3 | BSO Management Application | - |
| 2.5 | Intelligence Situation Application | - |
| 2.7 | Search Application | - |
| 2.8 | Analysis Application | - |
| 2.9 | ISR Organization Management Application | - |
| 2.10 | IRM Application | - |
| 2.11 | CRM Application | - |
| | **Subtotal** | - |
| | **Maximum Incentive (5%)** 5% | - |
| | **Total Phase 1** | - |

### Phase 2 (WP 1.2)

| CLIN | Description | Value |
|---|---|---|
| | Currency | - |
| **3** | **Phase 2 - New user interfaces** | - |
| 3.6 | BM JIPOE Application (using mock backend) | - |
| 3.10 | IRM Application | - |
| 3.11 | CRM Application (using mock backend) | - |
| 3.12 | COM Application (using mock backend) | - |
| | **Subtotal** | - |
| | **Maximum Incentive (5%)** 5% | - |
| | **Total Phase 2** | - |

### Phase 3 (WP 1.3)

| CLIN | Description | Value |
|---|---|---|
| | Currency | - |
| **4** | **Phase 3 - Full integration with new backend API** | - |
| 4.1 | Dashboard Application (new backend) | - |
| 4.2 | Products Management Application (new backend) | - |
| 4.3 | BSO Management Application (new backend) | - |
| 4.4 | Targets Application | - |
| 4.5 | Intelligence Situation Application (new backend) | - |
| 4.6 | BM JIPOE Application (new backend) | - |
| 4.7 | Search Application (new backend) | - |
| 4.8 | Analysis Application (new backend) | - |
| 4.9 | ISR Organization Management Application (new backend) | - |
| 4.10 | IRM Application (new backend) | - |
| 4.11 | CRM Application (new backend) | - |
| 4.12 | COM Application | - |
| | **Subtotal** | - |
| | **Maximum Incentive (5%)** 5% | - |
| | **Total Phase 3** | - |

## Evaluated Option

### Optional

| CLIN | Description | Value |
|---|---|---|
| | Currency | - |
| **5** | **Optional 3rd and 4th Level Maintenance and Support (after Warranty)** | - |
| 5.1 | 3rd and 4th level Maintenance and Support - Option Year 1 | - |
| 5.2 | 3rd and 4th level Maintenance and Support - Option Year 2 | - |
| 5.3 | 3rd and 4th level Maintenance and Support - Option Year 3 | - |
| 5.4 | 3rd and 4th level Maintenance and Support - Option Year 4 | - |
| 5.5 | 3rd and 4th level Maintenance and Support - Option Year 5 | - |
| | **Total Optional** | - |

## Base Contract

| App | High-Level Description | Phase 1 (WP 1.1) CLIN | Description | Value | Phase 2 (WP 1.2) CLIN | Description | Value | Phase 3 (WP 1.3) CLIN | Description | Value |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | Currency | - | | Currency | - | | Currency | - |
| 1 | User Management Application | 1.1 | User Management Application | - | | D.N.A. | | | D.N.A. | |
| 2 | Dashboard Application | 2.1 | Dashboard Application | - | | D.N.A. | | 4.1 | Dashboard Application (new backend) | - |
| **3** | Products Management Application | 2.2 | Products Management Application | - | | D.N.A. | | 4.2 | Products Management Application (new backend) | - |
| 4 | BSO Management Application | 2.3 | BSO Management Application | - | | D.N.A. | | 4.3 | BSO Management Application (new backend) | - |
| 5 | Targets Application | | Does Not Apply (D.N.A.) | | | D.N.A. | | 4.4 | Targets Application | - |
| 6 | Intelligence Situation Application | 2.5 | Intelligence Situation Application | - | | D.N.A. | | 4.5 | Intelligence Situation Application (new backend) | - |
| 7 | BM JIPOE Application | | D.N.A. | | 3.6 | BM JIPOE Application (using mock backend) | - | 4.6 | BM JIPOE Application (new backend) | - |
| 8 | Search Application | 2.7 | Search Application | - | | D.N.A. | | 4.7 | Search Application (new backend) | - |
| 9 | Analysis Application | 2.8 | Analysis Application | - | | D.N.A. | | 4.8 | Analysis Application (new backend) | - |
| 10 | ISR Organization Management Application | 2.9 | ISR Organization Management Application | - | | D.N.A. | | 4.9 | ISR Organization Management Application (new backend) | - |
| 11 | IRM Application | 2.10 | IRM Application | - | 3.10 | IRM Application | - | 4.10 | IRM Application (new backend) | - |
| 12 | CRM Application | 2.11 | CRM Application | - | 3.11 | CRM Application (using mock backend) | - | 4.11 | CRM Application (new backend) | - |
| 13 | COM Application | | D.N.A. | | 3.12 | COM Application (using mock backend) | - | 4.12 | COM Application | - |
| | | | **Subtotal** | - | | **Subtotal** | - | | **Subtotal** | - |
| | | | **Maximum Incentive (5%)** 5% | - | | **Maximum Incentive (5%)** 5% | - | | **Maximum Incentive (5%)** 5% | - |
| | | | **Total Phase 1** | - | | **Total Phase 2** | - | | **Total Phase 3** | - |

| CLIN | Deliverable | SRS reference | Description | Price | Optional Comments (Mandatory for zero costs lines) |
|---|---|---|---|---|---|
| | | | **Declare Currency =>** | - | |
| **1** | | **3.1** | **Externalized user account management** | **-** | |
| **1.1** | **User Management App** | **3.1.1** | **User Management Application** | **-** | |
| *1.1.1* | *User Management App* | *3.1.1.1* | *UI functionalities supporting user stories* | - | |
| 1.1.1.1 | User Management App | [FUA-1] | The User Management Application shall implement functionalities to fulfil the acceptance criteria of [US 1]: As an Authorized User I want to define the policies to be used by the INTEL-FS2 policy decision point (PDP) so users can be given the correct access privileges. | - | |
| 1.1.1.2 | User Management App | [FUA-2] | The User Management Application shall implement functionalities to fulfil the acceptance criteria of [US 2]: As an Authorized User I want to create user accounts so that the new users can get access to INTEL-FS2. | - | |
| 1.1.1.3 | User Management App | [FUA-3] | The User Management Application shall implement functionalities to fulfil the acceptance criteria of [US 3]: As an Authorized User I want be able to modify user accounts so that I can keep the user accounts and their privileges current. | - | |
| 1.1.1.4 | User Management App | [FUA-4] | The User Management Application shall implement functionalities to fulfil the acceptance criteria of [US 4]: As an Authorized User I want to define default user configuration settings to establish a baseline configuration so that the users will have a baseline to start from, or return to. | - | |
| 1.1.1.5 | User Management App | [FUA-5] | The User Management Application shall implement functionalities to fulfil the acceptance criteria of [US 5]: As an Authorized User I want to be able to control which domain values that are available at an ON so that only relevant information is presented to the users. | - | |
| 1.1.1.6 | User Management App | [FUA-6] | The User Management Application shall implement functionalities to fulfil the acceptance criteria of [US 6]: As an Authorized User I want to be able to send email to users so that I can provide them with information relevant to their usage of INTEL-FS2 (e.g. planned outages due to maintenance, changes to the user's account settings, etc.) | - | |
| 1.1.1.7 | User Management App | [FUA-7] | The User Management Application shall implement functionalities to fulfil the acceptance criteria of [US 7]: As an Authorized User I want to be able to manage a set of standard role-based notifications so that users with specific roles can be automatically informed of any change of interest to the role. | - | |
| *1.1.2* | *User Management App* | *3.1.1.2* | *Standalone application* | - | |
| 1.1.2.1 | User Management App | [FUA-10] | The User Management Application shall be implemented as a standalone application, and where this standalone User Management application can also manage user accounts for other applications than INTEL-FS. | - | |
| *1.1.3* | *User Management App* | *3.1.1.3* | *User Accounts administration functionalities* | - | |
| 1.1.3.1 | User Management App | [FUA-12] | The User Management Application shall include a dedicated User Interface allowing users to request user accounts where the requester can select from a number of predefined user role/ type configurations. | - | |
| 1.1.3.2 | User Management App | [FUA-13] | The User Management Application shall have support for redirecting account requests to relevant ONs for processing. | - | |
| 1.1.3.3 | User Management App | [FUA-14] | The User Management Application shall include a notification mechanism that alerts the appropriate user account administrator of pending new user account requests. | - | |
| 1.1.3.4 | User Management App | [FUA-15] | The User Management Application shall upon any change to a user account automatically notify, by email, the user with information on the change to the user account (this includes a welcome email to a user for whom a new user account has just been created). The email shall contain details on the change (i.e. what was changed). | - | |
| 1.1.3.5 | User Management App | [FUA-16] | The User Management Application shall include support for resetting the password for a user with no domain account to enable the user to access INTEL-FS2 again. | - | |
| 1.1.3.6 | User Management App | [FUA-17] | The User Management Application shall manage the user's attributes (including assertions/ claims required for access control) locally to the I2UA application. This means that I2UA shall provide its own application attribute store. | - | |
| 1.1.3.7 | User Management App | [FUA-18] | The User Management Application shall backup its user account database at regular (and configurable) intervals. | - | |
| 1.1.3.8 | User Management App | [FUA-19] | It shall be possible to restore the User Management Application user account database from a backup. | - | |
| 1.1.3.9 | User Management App | [FUA-20] | In case the User Management Application is implemented using a solution based on the Windows operating System, the I2UA user accounts shall be declared in an Active Directory inheriting NATO Group Policy Object (GPO) declared at the network domain level for password policy (e.g. complexity, history, minimum age, maximum age, length). | - | |
| *1.1.4* | *User Management App* | *3.1.1.4* | *Initial policy definitions* | - | |

| | | | | |
|---|---|---|---|---|
| 1.1.4.1 | User Management App | [FUA-21] | The User Management Application shall be populated with an access control policy set that enables user access controls to I2UA that are comparable with the mainstream access privileges currently in use in INTEL-FS Spiral 1 (see also examples in Chapter 3 of [INTEL-FS2-UserStories]). | - |
| **2** | | **4.1** | **Phase 1 - Upgrade existing UI and BM OPFOR ORBAT management** | - |
| **2.1** | **Dashboard App** | **4.1.1** | **Dashboard Application** | - |
| *2.1.1* | *Dashboard App* | *4.1.1.1* | *UI functionalities supporting user stories* | - |
| 2.1.1.1 | Dashboard App | [FUA-22] | The Dashboard Application shall implement functionalities to fulfil the acceptance criteria of [US 8]: As an Authorized User I want to see, and have dynamically updated, information on the latest updates to IIEs of interest to me on my Dashboard so that I obtain this information without having to manually search for it. | - |
| 2.1.1.2 | Dashboard App | [FUA-23] | The Dashboard Application shall implement functionalities to fulfil the acceptance criteria of [US 9]: As an Authorized User I want to see my notifications on my Dashboard so that I can dynamically see updates to these as they are generated. | - |
| 2.1.1.3 | Dashboard App | [FUA-24] | The Dashboard Application shall implement functionalities to fulfil the acceptance criteria of [US 10]: As an Authorized User I want to access favourites/ links from my Dashboard so that I can quickly retrieve resources of relevance to my tasking. | - |
| 2.1.1.4 | Dashboard App | [FUA-25] | The Dashboard Application shall implement functionalities to fulfil the acceptance criteria of [US 11]: As an Authorized User I want to customize the information to be shown in the Table View for the latest updated IIEs so that the information shown there is of relevance to me. | - |
| 2.1.1.5 | Dashboard App | [FUA-27] | The Dashboard Application shall implement functionalities to fulfil the acceptance criteria of [US 89]: As an Authorized User I want to be able to access a help function that can provide me with information on how to use INTEL-FS2. | - |
| *2.1.2* | *Dashboard App* | *4.1.1.2* | *Table Views* | - |
| 2.1.2.1 | Dashboard App | [FUA-29] | The Dashboard Application shall by default display the latest-updated-products, the RFI statuses, the CR statuses, and the Notifications in different Table Views using the Table View Component as defined in chapter 2. | - |
| 2.1.2.2 | Dashboard App | [FUA-30] | It shall, in a Table View, be possible to select one or multiple notifications and flag them (i.e. mark as "to do"), and to mark them as "read" or "unread", and to archive them (and thus hide them), and to delete them. | - |
| *2.1.3* | *Dashboard App* | *4.1.2.3* | *Relationship View* | - |
| 2.1.3.1 | Dashboard App | [FUA-31] | The Dashboard Application shall use the Relationship View Component with all its features as defined in chapter 2. | - |
| 2.1.3.2 | Dashboard App | [FUA-32] | The Dashboard Application shall be able to display the IIEs (filtered according to the user's preferences) with the latest updates in the Relationship View. The user can expand the information in the Relationship View by selecting individual IIEs and bring into the view all IIEs (of any type) linked to the selected IIEs. | - |
| 2.1.3.3 | Dashboard App | [FUA-33] | Items selected in Relationship View shall be displayed/ previewed in the Dashboard Application. | - |
| *2.1.4* | *Dashboard App* | *4.1.2.4* | *GeoView* | - |
| 2.1.4.1 | Dashboard App | [FUA-34] | The Dashboard Application shall integrate with and control the GeoView component as described in chapter 2. | - |
| 2.1.4.2 | Dashboard App | [FUA-35] | The Dashboard Application shall display the IIEs (filtered according to the user's preferences) with the latest updates in the GeoView. | - |
| 2.1.4.3 | Dashboard App | [FUA-36] | An item selected in GeoView shall be displayed/ previewed in the Dashboard Application. | - |
| *2.1.5* | *Dashboard App* | *4.1.1.5* | *UI functionalities for managing cross-cutting configuration settings (for all applications)* | - |
| 2.1.5.1 | Dashboard App | [FUA-37] | It shall be possible for the user to specify which data source (operational data, exercise data, training data) to use. | - |
| 2.1.5.2 | Dashboard App | [FUA-38] | It shall be possible to configure the default user interface customization settings as defined in the table below to be used in the user interfaces across all I2UA applications. | - |
| 2.1.5.3 | Dashboard App | [FUA-39] | Changes to configuration settings shall be persisted for each individual user, and loaded upon the start of each new user session (logon). | - |
| *2.1.6* | *Dashboard App* | *4.1.1.6* | *UI functionalities for managing configuration settings for the Dashboard views* | - |
| 2.1.6.1 | Dashboard App | [FUA-40] | It shall be possible to change the default time window for the latest-published-products view (Table View). | - |
| 2.1.6.2 | Dashboard App | [FUA-41] | It shall be possible to apply filters to tailor which products to be shown in the latest-published-products view. Supported filters shall include product type, geospatial coverage (location of the reported information), source/ producer of the information, a set of IRs, etc. | - |
| *2.1.7* | *Dashboard App* | *4.1.1.7* | *Messaging with INTEL-FS Backend (I2BE)* | - |
| 2.1.7.1 | Dashboard App | [FUA-42] | The I2UA shall implement the service-to-service messaging protocol as supported by the SOA & IdM Platform for communication with the I2BE. | - |

| | | | | |
|---|---|---|---|---|
| **2.2** | **Products Management App** | **4.1.2** | **Products Management Application** | **-** |
| *2.2.1* | *Products Management App* | *4.1.2.1* | *UI functionalities supporting user stories* | - |
| 2.2.1.1 | Products Management App | [FUA-43] | The Products Management Application shall implement functionalities to fulfil the acceptance criteria of [US 15]: As an Authorized User I want to create/ update products, so that I can share intelligence and information with other users. | - |
| 2.2.1.2 | Products Management App | [FUA-44] | The Products Management Application shall implement functionalities to fulfil the acceptance criteria of [US 16]: As an Authorized User I want to be able to use templates when creating products, so that I can automatically prefill repeatable metadata for products that I create on a regular basis. | - |
| 2.2.1.3 | Products Management App | [FUA-45] | The Products Management Application shall implement functionalities to fulfil the acceptance criteria of [US 17]: As an Authorized User I want to create products with associations to other IIEs of different types and export these so that these products can be used for automated ingestion during training exercises. | - |
| 2.2.1.4 | Products Management App | [FUA-47] | The Products Management Application shall implement functionalities to fulfil the acceptance criteria of [US 89]: As an Authorized User I want to be able to access a help function that can provide me with information on how to use INTEL-FS2. | - |
| *2.2.2* | *Products Management App* | *4.1.2.2* | *Integrated search and basic actions on search results* | - |
| 2.2.2.1 | Products Management App | [FUA-48] | The Product Management Application shall include an integrated search function allowing the user to identify products that can subsequently be selected for editing and for workflow management. | - |
| 2.2.2.2 | Products Management App | [FUA-49] | From the search results it shall be possible (for an authorized user) to perform the actions as defined in the table below. | - |
| *2.2.3* | *Products Management App* | *4.1.2.3* | *Create and/ or update functionalities* | - |
| 2.2.3.1 | Products Management App | [FUA-50] | The Product Management Application shall through submitting the product file (in PDF or MS Word format) to an I2BE metadata extraction service obtain Keywords and Locations from the product file and pre-fill the Keywords and Locations in the product entry forms. | - |
| 2.2.3.2 | Products Management App | [FUA-51] | The Product Management Application shall through submitting imagery and video product files (in STANAG 4545 and STANAG 4609 format) to a I2BE metadata extraction service obtain product metadata values and pre-fill the metadata attributes in the product entry forms. | - |
| 2.2.3.3 | Products Management App | [FUA-53] | The Product Management Application shall be able to use templates to prefill values to selected metadata attributes. As a minimum it shall use default values to prefill the Authority, Classification, and Releasability attributes. | - |
| 2.2.3.4 | Products Management App | [FUA-54] | The Product Management Application shall, when a new product is linked to a RFI, IR, CR, or collection/ exploitation task, provide functionality to set the status of the linked IIE to completed or fulfilled (as appropriate for the linked IIE type). | - |
| 2.2.3.5 | Products Management App | [FUA-55] | The Product Application can create different types of products (as defined by [INTEL-FS2 InformationModel]), and the user shall have the possibility to specify the type of product when activating the create form/ panel. | - |
| *2.2.4* | *Products Management App* | *4.1.2.4* | *Application Working Data Set (ADS)* | - |
| 2.2.4.1 | Products Management App | [FUA-555] | It shall be possible to perform multiple, consecutive queries to add products to the ADS. | - |
| *2.2.5* | *Products Management App* | *4.1.2.5* | *IIE View/ Entry Panel* | - |
| 2.2.5.1 | Products Management App | [FUA-556] | The Product Management Application shall include an IIE View/ Entry Panel as defined in chapter 2 to display and edit IIEs managed by the application. | - |
| *2.2.6* | *Products Management App* | *4.1.2.6* | *Relationship View* | - |
| 2.2.6.1 | Products Management App | [FUA-56] | The Product Management Application shall use the Relationship View Component with all its features as defined in chapter 2. | - |
| 2.2.6.2 | Products Management App | [FUA-57] | The Product Management Application shall be able to display products (identified through the integrated search) in the Relationship View. The user can expand the information in the Relationship View by selecting individual products and view all IIEs (of any type) linked to the selected products. | - |
| 2.2.6.3 | Products Management App | [FUA-58] | By selecting an item in Relationship View the full detail of the item shall be displayed/ previewed in the Product Management Application (e.g. in a dialog window). | - |
| *2.2.7* | *Products Management App* | *4.1.2.7* | *GeoView* | - |
| 2.2.7.1 | Products Management App | [FUA-59] | The Product Management Application shall integrate with and control the GeoView component as described in chapter 2. | - |
| 2.2.7.2 | Products Management App | [FUA-60] | The Product Management Application shall display products (from the integrated search) in GeoView. In case a product is associated with multiple locations then all locations shall be indicated on the map while visually depicting that they all belong to the same product (e.g. by using annotation in glyphs). | - |
| 2.2.7.3 | Products Management App | [FUA-61] | The Product Management Application shall be able to use the GeoView to define the geolocation of a new product by selecting a position in GeoView. | - |

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| *2.2.8* | *Products Management App* | *4.1.2.8* | *Export functionalities* | - |
| 2.2.8.1 | Products Management App | [FUA-62] | It shall be possible to search for products, select one or multiple products and export the metadata of selected products to a single XML file, and exports the products icon, symbol, or thumbnail. The resulting file shall include information of the security classification of the exported data, and the file name shall include prefix that informs about the highest classification of the information in the file (e.g. using an (NR) prefix for files with NATO RΞSTRICTED information). | - |
| 2.2.8.2 | Products Management App | [FUA-63] | It shall be possible to transform the exported data resulting from [FUA-62] into humanly readable document using a separate/ external and customizable transformations (e.g. XSLT-FO). The transformations shall use the exported XML file, icons, symbols, and thumbnails and produce a PDF file. The resulting file shall include information of the security classification of the exported data, and the file name shall include prefix that informs about the highest classification of the information in the file (e.g. using an (NR) prefix for files with NATO RΞSTRICTED information). | - |
| 2.2.8.3 | Products Management App | [FUA-64] | In support of exercises (see [FUA-45]), it shall be possible to define a new product entirely on the client side (not submitting the product to the I2BE backend) where this product includes a full set of metadata and a number of attachments. It shall be possible to export this product (metadata and attachments) in to a file in a structured format. The resulting file shall include information of the security classification of the exported data, and the file name shall include prefix that informs about the highest classification of the information in the file (e.g. using an (NR) prefix for files with NATO RΞSTRICTED information). | - |
| 2.2.8.4 | Products Management App | [FUA-65] | For the type of product export files that are used for exchange with the Joint Exercise Management Module (JEMM) system (see [FUA-45]) it shall be possible to manage these outside of the INTEL-FS repository. It shall be possible to load a previously exported product file and edit/ refine it and save it back to the same file, or to save it under another file name. | - |
| **2.3** | **BSO Management App** | **4.1.3** | **BSO Management Application** | - |
| *2.3.1* | *BSO Management App* | *4.1.3.1* | *UI functionalities supporting user stories* | - |
| 2.3.1.1 | BSO Management App | [FUA-66] | The BSO Management Application shall implement functionalities to fulfil the acceptance criteria of [US 18]: As an Authorized User I want to create or update a BSO or a BSR so that this new intelligence can be used in analysis and shared with other users. | - |
| 2.3.1.2 | BSO Management App | [FUA-67] | The BSO Management Application shall implement functionalities to fulfil the acceptance criteria of [US 19]: As an Authorized User I want to manage reporting on IED incidents in order to build a complete picture of adversary IED activities in the area of intelligence interest (AOII) and thereby contribute to the counter-IED (C-IED) mission. | - |
| 2.3.1.3 | BSO Management App | [FUA-68] | The BSO Management Application shall implement functionalities to fulfil the acceptance criteria of [US 21]: As an Authorized User I want to use the Relationship View for creating/ updating BSOs and relationships between BSOs and other IIEs as this is a highly efficient way of managing BSOs and their relationships. | - |
| 2.3.1.4 | BSO Management App | [FUA-69] | The BSO Management Application shall implement functionalities to fulfil the acceptance criteria of [US 22]: As an Authorized User I want to use the Map View for creating/ relationships between BSOs and other IIEs. | - |
| 2.3.1.5 | BSO Management App | [FUA-70] | The BSO Management Application shall implement functionalities to fulfil the acceptance criteria of [US 23]: As an Authorized User I want to have the report to be collated imported into an editable scratch panel and the original and formatted report available in a PDF viewer so that I can start executing the collation work. | - |
| 2.3.1.6 | BSO Management App | [FUA-71] | The BSO Management Application shall implement functionalities to fulfil the acceptance criteria of [US 24]: As an Authorized User I want to use the report extracted to a scratch panel as the source for my collation work so that I can efficiently identify BSOs and copy/ paste text into BSRs. | - |
| 2.3.1.7 | BSO Management App | [FUA-72] | The BSO Management Application shall implement functionalities to fulfil the acceptance criteria of [US 25]: As an Authorized User I want to be able to compare BSOs to detect if they are duplicates so that I can subsequently merge the BSOs (and their reports) into a single BSO. | - |
| 2.3.1.8 | BSO Management App | [FUA-73] | The BSO Management Application shall implement functionalities to fulfil the acceptance criteria of [US 26]: As an Authorized User I want to have my collation tasks organized in a task list so that I can better plan my collation work. | - |
| 2.3.1.9 | BSO Management App | [FUA-74] | The BSO Management Application shall implement functionalities to fulfil the acceptance criteria of [US 27]: As an Authorized User I want to manage the collation tasking so that I can plan, prioritize, and track the progress of the collation work. | - |
| 2.3.1.10 | BSO Management App | [FUA-75] | The BSO Management Application shall implement functionalities to fulfil the acceptance criteria of [US 28]: As an Authorized User I want to create or update an OPFOR ORBAT in order to model a real world ORBAT so that this can be persisted, used in analysis and shared with other users. | - |

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| 2.3.1.11 | BSO Management App | [FUA-76] | The BSO Management Application shall implement functionalities to fulfil the acceptance criteria of [US 29]: As an Authorized User I want to inspect the OPFOR ORBAT in order to track changes, understand and analyse the ORBAT. | - |
| 2.3.1.12 | BSO Management App | [FUA-78] | The BSO Management Application shall implement functionalities to fulfil the acceptance criteria of [US 89]: As an Authorized User I want to be able to access a help function that can provide me with information on how to use INTEL-FS2. | - |
| *2.3.2* | *BSO Management App* | *4.1.3.2* | *Integrated search and basic actions on search results* | - |
| 2.3.2.1 | BSO Management App | [FUA-80] | The BSO Management Application shall include an integrated search function allowing the user to identify IIEs that can subsequently be selected for BSO management and for workflow management. I.e. it shall be possible to search for all OPFOR ORBATs, BSO types, IED incidents, products, etc. | - |
| 2.3.2.2 | BSO Management App | [FUA-81] | The BSO Management Application shall when displaying a BSO show the latest assessed status information. | - |
| 2.3.2.3 | BSO Management App | [FUA-82] | It shall be possible from the integrated search function to use an OPFOR ORBAT as a search criteria and find all IIEs (e.g. BSOs, Products, RFIs and RFI Responses, Collection Requirements, etc.) associated with elements of the ORBAT. | - |
| 2.3.2.4 | BSO Management App | [FUA-83] | From the search results it shall be possible (for an authorized user) to perform the actions as defined in the table below. | - |
| *2.3.3* | *BSO Management App* | *4.1.3.3* | *Application Working Data Set (ADS)* | - |
| 2.3.3.1 | BSO Management App | [FUA-84] | It shall be possible to perform multiple, consecutive queries to add data to the data set (OPFOR ORBATs, BSOs, IED Incidents, and other IIEs). I.e. the user can chose whether to use the result of the new query to augment or replace the content of the application data set. When a new query is adding to the content of the data set, any duplicate IIEs from the multiple queries shall be resolved. Any change to the data set shall be reflected in all the application views. | - |
| 2.3.3.2 | BSO Management App | [FUA-85] | It shall be possible to filter the data set based on IIE types, and attributes of the IIEs and remove/ hide IIEs of "unwanted" types in all views. It shall be possible to filter on OPFOR ORBAT attributes, all BSO types, all attributes of the individual BSO types, and IED Incidents, as defined in [INTEL-FS2-InformationModel]. | - |
| 2.3.3.3 | BSO Management App | [FUA-86] | It shall be possible to filter the OPFOR ORBAT to a specified level (e.g. only down to Battalion level) remove/ hide ORBAT elements below that level in all views. | - |
| 2.3.3.4 | BSO Management App | [FUA-87] | It shall be possible to apply a geographical coverage area filter to filter out information from the application data set, and dynamically update all the views. | - |
| 2.3.3.5 | BSO Management App | [FUA-88] | It shall be possible to filter the application data set based on a time window (e.g. using a time slider UI widget) and remove/ hide IIEs outside the of the active time window and dynamically update all the views. It shall be possible to dynamically shrink, expand, and shift the time window in time (backwards and forwards in time). | - |
| *2.3.4* | *BSO Management App* | *4.1.3.4* | *IIE View/ Entry Panel* | - |
| 2.3.4.1 | BSO Management App | [FUA-588] | The BSO Management Application shall include an IIE View/ Entry Panel as defined in chapter 2 to display and edit IIEs managed by the application. | - |
| *2.3.5* | *BSO Management App* | *4.1.3.5* | *Table Views* | - |
| 2.3.5.1 | BSO Management App | [FUA-89] | The BSO Management Application shall use the Table View Component with all its features as defined in chapter 2. | - |
| 2.3.5.2 | BSO Management App | [FUA-90] | The Table View shall show the maximum set of IIE attributes that are common across all IIEs in the application data set and support editing of the attributes within the table. | - |
| 2.3.5.3 | BSO Management App | [FUA-91] | When the data set only contains IIE of one particular data type, then all attributes of that type shall be shown in the table (e.g. if the data set only contains BM TECHINT of a certain equipment type, all parameters of that particular equipment type shall be shown in the Table View). | - |
| 1.4.5.4 | BSO Management App | [FUA-92] | It shall, when the Table View is showing IIEs grouped by ORBATs, be possible to copy data from one ORBAT to another and update and save (and subsequently approve and publish) the changed ORBAT. | - |
| *2.3.6* | *BSO Management App* | *4.1.3.6* | *Relationship Views* | - |
| 2.3.6.1 | BSO Management App | [FUA-93] | The BSO Management Application shall use the Relationship View Component with all its features as defined in chapter 2. | - |
| 2.3.6.2 | BSO Management App | [FUA-94] | It shall be possible, from within the BSO Application, to expand the view with additional BSOs by specifying a degree of separation from the original BSO set and request import (note: a degree of separation greater than 2 is probably not practical). The Relationship View shall automatically re-render its layout and display all the BSOs including the newly added ones. | - |
| 2.3.6.3 | BSO Management App | [FUA-95] | It shall be possible to select an IIEs in the Relationship View and get all details of the IIE presented within the BSO Management Application. | - |

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| 2.3.6.4 | BSO Management App | [FUA-96] | It shall be possible to animate the change over time of the ORBAT e.g. using a time slider UI widget) in the Relationship View (using a hierarchical layout). | - |
| 2.3.6.5 | BSO Management App | [FUA-97] | Items selected in Relationship View shall be displayed/ previewed in the BSO Management Application. | - |
| *2.3.7* | *BSO Management App* | *4.1.3.7* | *Timeline Views* | - |
| 2.3.7.1 | BSO Management App | [FUA-98] | The BSO Management Application shall use a Timeline View Component with all its features as defined in chapter 2. | - |
| 2.3.7.2 | BSO Management App | [FUA-99] | It shall be possible to view the entire history of a selected BSO's status reports in a Timeline View that shows when changes occurred. For each change, it shall be possible to identify what was changed. It shall be possible to hide (and unhide) status reports classified as 'contributing' from this history view (reports classified as 'assessed' shall always be shown). | - |
| 2.3.7.3 | BSO Management App | [FUA-100] | It shall be possible to view the entire change history for a selected OPFOR ORBAT in a Timeline View that shows all changes in the ORBAT and when the changes occurred. For each change, it shall be possible to identify what was changed. | - |
| 2.3.7.4 | BSO Management App | [FUA-101] | An Item selected in Timeline View shall be displayed/ previewed in the BSO Management Application. | - |
| *2.3.8* | *BSO Management App* | *4.1.3.8* | *GeoView* | - |
| 2.3.8.1 | BSO Management App | [FUA-102] | The BSO Management Application shall integrate with and control the GeoView component as described in chapter 2. | - |
| 2.3.8.2 | BSO Management App | [FUA-103] | The BSO Management Application shall display BSOs and Relationships in GeoView. | - |
| 2.3.8.3 | BSO Management App | [FUA-104] | The BSO Management Application shall be able to create new, or update, relationships between BSOs from within the GeoView. | - |
| 2.3.8.4 | BSO Management App | [FUA-105] | An Item selected in GeoView shall be displayed/ previewed in the BSO Management Application. | - |
| *2.3.9* | *BSO Management App* | *4.1.3.9* | *ORBAT View* | - |
| 2.3.9.1 | BSO Management App | [FUA-106] | It shall be possible to view the ORBAT with all its information as defined in the [INTEL-FS2-InformationModel] in a human readable document format. | - |
| 2.3.9.2 | BSO Management App | [FUA-107] | The BSO Management Application shall in the ORBAT View be able to display the historical changes of the ORBAT over time. | - |
| 2.3.9.3 | BSO Management App | [FUA-607] | The BSO Management Application shall be able to export the ORBAT View as a PDF file. | - |
| *2.3.10* | *BSO Management App* | *4.1.3.10* | *Report Collation View* | - |
| 2.3.10.1 | BSO Management App | [FUA-608] | It shall be possible from within the Report Collation View (as described by [FUA-71]), at any time, to close down the collation of a report by setting the status of the report collation to Completed, Aborted, NoInformationValue, or ReviewedNotCollated. When setting the collation status to any of these values, the BSO Management Application shall exit from the Report Collation View and return to the Collation Task List (as described by [FUA-73]). | - |
| 2.3.10.2 | BSO Management App | [FUA-609] | It shall be possible to sort the list of automatically identified BSOs (from the report) BSO Name and by BSO type. | - |
| 2.3.10.3 | BSO Management App | [FUA-610] | It shall be possible to collapse multiple findings of a particular BSO in the report text in the list of identified BSOs, and it shall be possible to expand the collapsed findings for a BSO to see all matches (as text snippets) in the report text. | - |
| 2.3.10.4 | BSO Management App | [FUA-611] | It shall be possible to select any of the multiple matches for each of the BSOs in the list of identified BSOs and have that particular text match highlighted in the text in the scrap panel, and to reposition the curser in the scrap panel on the matched text (i.e. center the scrap panel view on the matched text). | - |
| **2.5** | **INTEL Situation App** | **4.1.5** | **Intelligence Situation Application** | - |
| *2.5.1* | *INTEL Situation App* | *4.1.5.1* | *UI functionalities supporting user stories* | - |
| 2.5.1.1 | INTEL Situation App | [FUA-108] | The Intelligence Situation Application shall implement functionalities to fulfil the acceptance criteria of [US 34]: As an Authorized User I want to create/ load overlays so that I can study the Intelligence Situation. | - |
| 2.5.1.2 | INTEL Situation App | [FUA-109] | The Intelligence Situation Application shall implement functionalities to fulfil the acceptance criteria of [US 35]: As an Authorized User I want to expose a named overlay as the Intelligence Situation so that it becomes available at all Organizational Nodes (ON) and can be shared with other applications such as NATO Common Operating Picture (NCOP). | - |
| 2.5.1.3 | INTEL Situation App | [FUA-111] | The Intelligence Situation Application shall implement functionalities to fulfil the acceptance criteria of [US 89]: As an Authorized User I want to be able to access a help function that can provide me with information on how to use INTEL-FS2. | - |
| *2.5.2* | *INTEL Situation App* | *4.1.5.2* | *Integrated search and basic actions on search results* | - |
| 2.5.2.1 | INTEL Situation App | [FUA-112] | The Intelligence Situation Application shall include an integrated search function allowing the user to identify IIEs where one or many of the identified IIEs can be selected and added to dedicated overlays. | - |

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| 2.5.2.2 | INTEL Situation App | [FUA-113] | From the search results it shall be possible (for an authorized user) to perform the actions as defined in the table below. | - |
| *2.5.3* | *INTEL Situation App* | *4.1.5.3* | *Application Data Set (ADS)* | - |
| 2.5.3.1 | INTEL Situation App | [FUA-114] | The Intelligence Situation Application shall be able to work with multiple overlays concurrently. | - |
| 2.5.3.2 | INTEL Situation App | [FUA-115] | It shall be possible to search for and load an existing overlay into an overlay data set. | - |
| 2.5.3.3 | INTEL Situation App | [FUA-116] | It shall be possible to perform multiple, consecutive queries to add data to an overlay data set. I.e. the user can chose whether to use the result of the new query to augment or replace the content of the application data set. When a new query is adding to the content of the data set, any duplicate IIEs from the multiple queries shall be resolved. | - |
| 2.5.3.4 | INTEL Situation App | [FUA-117] | It shall be possible to filter an overlay data set based on IIE types, and attributes of the IIEs. | - |
| 2.5.3.5 | INTEL Situation App | [FUA-118] | It shall be possible from the overlay data set to create, or update, and submit for approval, the new/ changed overlay. | - |
| *2.5.4* | *INTEL Situation App* | *4.1.5.4* | *IIE View/ Entry Panel* | - |
| 2.5.4.1 | INTEL Situation App | [FUA-618] | The Intelligence Situation Application shall include an IIE View/ Entry Panel as defined in chapter 2 to display and edit IIEs managed by the application. | - |
| *2.5.5* | *INTEL Situation App* | *4.1.5.5* | *Table Views* | - |
| 2.5.5.1 | INTEL Situation App | [FUA-119] | The Intelligence Situation Application shall be able to visualize and edit overlays in the Table View Components as defined in chapter 2, and support editing of the overlay attributes within the table. | - |
| *2.5.6* | *INTEL Situation App* | *4.1.5.6* | *Relationship View* | - |
| 2.5.6.1 | INTEL Situation App | [FUA-120] | The Intelligence Situation Application shall use the Relationship View Component with all its features as defined in chapter 2. | - |
| 2.5.6.2 | INTEL Situation App | [FUA-121] | The Intelligence Situation Application shall be able to display the IIEs of an overlay in the Relationship View. The user can expand the information in the Relationship View by selecting individual IIEs and bring into the view all IIEs (of any type) linked to the selected IIEs. | - |
| 2.5.6.3 | INTEL Situation App | [FUA-122] | Items selected in Relationship View shall be displayed/ previewed in the Intelligence Situation Application. | - |
| *2.5.7* | *INTEL Situation App* | *4.1.5.7* | *GeoView* | - |
| 2.5.7.1 | INTEL Situation App | [FUA-123] | The Intelligence Situation Application shall integrate with and control the GeoView component as described in chapter 2. | - |
| 2.5.7.2 | INTEL Situation App | [FUA-124] | The Intelligence Situation Application shall be able to create, update, or delete overlays from within the GeoView where subsequently the overlays changes are persisted in INTEL-FS2 and processed through the approval workflow process. | - |
| 2.5.7.3 | INTEL Situation App | [FUA-125] | The Intelligence Situation Application shall be able to visualize its overlay data set in GeoView and control how the overlays are visualized in GeoView (e.g. hide/ unhide, hierarchical ordering, remove overlay, etc.) | - |
| 2.5.7.4 | INTEL Situation App | [FUA-126] | The Intelligence Situation Application shall be able to dynamically update GeoView's visualization of overlays whenever there is a change to the overlay's data set (e.g. an IIE is added or removed, the position of an IIE is changed, etc.) | - |
| 2.5.7.5 | INTEL Situation App | [FUA-127] | It shall be possible to multi-select IIEs in the GeoView and copy or move the selected IIEs from one overlay to another overlay. | - |
| 2.5.7.6 | INTEL Situation App | [FUA-128] | The Intelligence Situation Application shall be able to obtain graphical representation of the recognized maritime picture (RMP) as NVG or KML from NCOP (see [NCOP-ICD]), display it in GeoView, and regularly update the RMP overlay in GeoView. | - |
| 2.5.7.7 | INTEL Situation App | [FUA-129] | The Intelligence Situation Application shall be able to obtain graphical representation of the recognized ground picture (RGP) as NVG from the NCOP system (see [NCOP-IDC]), display it in GeoView, and regularly update the RGP overlay in GeoView. | - |
| 2.5.7.8 | INTEL Situation App | [FUA-130] | The Intelligence Situation Application shall be able to obtain graphical representation of the chemical, biological, radiological and nuclear (CBRN) hazard areas (as NVG) from services in the CBRN FS system, display the areas in GeoView, and regularly update the hazard areas overlay in GeoView. | - |
| 2.5.7.9 | INTEL Situation App | [FUA-131] | The Intelligence Situation Application shall be able to obtain graphical representation of the weather situation through OpenGIS® Web Map Service (WMS) Interface provided by the NATO Automated Meteorological Information System [NAMIS] and display the data in GeoView, and regularly update this overlay in GeoView. If the information is available from NAMIS the application shall be able to display: Cloud Cover, Humidity data, Atmospheric Pressure data, Precipitation data, Thunderstorm data, Temperature data, and Wind Speed data at different altitudes. | - |
| **2.7** | **Search App** | **4.1.7** | **Search Application** | **-** |
| *2.7.1* | *Search App* | *4.1.7.1* | *UI functionalities supporting user stories* | - |

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| 2.7.1.1 | Search App | [FUA-132] | The Search Application shall implement functionalities to fulfil the acceptance criteria of [US 48]: As an Authorized User I want to combine free-text search with specific metadata search so that I can narrow down the search result set. | - |
| 2.7.1.2 | Search App | [FUA-133] | The Search Application shall implement functionalities to fulfil the acceptance criteria of [US 49]: As an Authorized User I want to save the combined search so that this specific combined search can be repeated and subscribed to. | - |
| 2.7.1.3 | Search App | [FUA-134] | The Search Application shall implement functionalities to fulfil the acceptance criteria of [US 51]: As an Authorized User I want to preview IIEs and their attachments and related files so that I can precisely identify and select existing data, information and intelligence. | - |
| 2.7.1.4 | Search App | [FUA-135] | The Search Application shall implement functionalities to fulfil the acceptance criteria of [US 52]: As an Authorized User I want to export search results to support further analysis of the selected information to be done externally to INTEL-FS2. | - |
| 2.7.1.5 | Search App | [FUA-137] | The Search Application shall implement functionalities to fulfil the acceptance criteria of [US 89]: As an Authorized User I want to be able to access a help function that can provide me with information on how to use INTEL-FS2. | - |
| *2.7.2* | *Search App* | *4.1.7.2* | *Relationship View* | - |
| 2.7.2.1 | Search App | [FUA-138] | The Search Application shall use the Relationship View Component with all its features as defined in chapter 2. | - |
| 2.7.2.2 | Search App | [FUA-139] | The Search Application shall be able to display the search results in the Relationship View while using some form of extent management or lazy loading to provide the search results to the user within a minimum response time. The user can expand the information in the Relationship View by selecting individual IIEs and bring into the view all IIEs (of any type) linked to the selected IIEs. | - |
| *2.7.3* | *Search App* | *4.1.7.3* | *GeoView* | - |
| 2.7.3.1 | Search App | [FUA-140] | The Search Application shall integrate with and control the GeoView component as described in chapter 2. | - |
| 2.7.3.2 | Search App | [FUA-141] | The Search Application shall be able to use GeoView to define geo-location constraints to be used in the search criteria. | - |
| 2.7.3.3 | Search App | [FUA-142] | The Search Application shall be able to display search results in GeoView as thumbnails or icons while using some form of extent management or lazy loading to provide the search results to the user within a minimum response time. | - |
| 2.7.3.4 | Search App | [FUA-143] | An Item selected in GeoView shall be displayed/ previewed in the Search Application. | - |
| *2.7.4* | *Search App* | *4.1.7.4* | *Search Results functionalities* | - |
| 2.7.4.1 | Search App | [FUA-144] | The search result list shall include icons for each of the IIEs in the list using file type symbols (e.g. standard PDF icon, MS Office icons, etc) and for non-file-type IIEs use APP-6 symbols when applicable (e.g. for BSOs). The icons and symbols shall be decorated with the workflow status of the IIE. | - |
| 2.7.4.2 | Search App | [FUA-644] | It shall be possible to decorate the APP-6 symbols in the search list with nationality flags, including fictitious and configurable country flags (when running in exercise mode). | - |
| 2.7.4.3 | Search App | [FUA-145] | It shall be possible to rearrange the sequence of the columns in the search result list. | - |
| 2.7.4.4 | Search App | [FUA-146] | It shall be possible to customize the information being shown in the result list (hide and unhide/add columns. | - |
| 2.7.4.5 | Search App | [FUA-147] | The Search Application shall from the result set support selection of single, or multiple, video products and/ or image products and export these for use by Google Earth. I.e. the products (metadata and videos/ images) are exported in the KML file format. The resulting file shall include information of the security classification of the exported data, and the file name shall include prefix that informs about the highest classification of the information in the file (e.g. using an (NR) prefix for files with NATO RΞSTRICTED information). | - |
| 2.7.4.6 | Search App | [FUA-148] | The Search Application shall from the result set support selection of single, or multiple BSOs and export those BSOs with their BSRs, and with their relationships to other BSOs (and their BSRs) to a user-specified degree of relationship separation from the selected set of BSOs. The export file shall be in XML format and shall preserve all relationships between all BSOs exported format. | - |
| *2.7.5* | *Search App* | *4.1.7.5* | *Report Reader* | - |
| 2.7.5.1 | Search App | [FUA-150] | The Search Application shall implement a dedicated Report Reader Component that can load a result document attachment in PDF format and thus enable the user to read the entire document. | - |

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| 2.7.5.2 | Search App | [FUA-151] | The Report Reader Component shall be implemented such that it can be reused by other I2UA applications. | - |
| 2.7.5.3 | Search App | [FUA-152] | The Previewing Report Reader shall support text search within the previewed document. | - |
| 2.7.5.4 | Search App | [FUA-153] | The Previewing Report Reader shall support identification of existing BSOs in the text (an example of a Report Reader with BSO identification is shown in the figure below. For BSOs that already exist as objects in the INTEL-FS repository, and that are found in the text, the user can use the automatically created list (to the right in the example Report Reader) to navigate to that entity. | - |
| 2.7.5.5 | Search App | [FUA-154] | It shall be possible to extend the Report Reader with a Relationship View in another Panel. The Relationship View shall be implemented using, or including, the Relationship View Component with all its features as defined in chapter 2. The Relationship View shall show the BSOs found in the report and include relationships between these (if any), as shown in the figure below. | - |
| *2.7.6* | *Search App* | *4.1.7.6* | *Saved searches and search history functionalities* | - |
| 2.7.6.1 | Search App | [FUA-155] | The Search Application can export and import saved searches allowing users to share defined searches without using the global/ published search mechanism (i.e. the saved searches stays private to the individual users). | - |
| 2.7.6.2 | Search App | [FUA-156] | It shall be possible to manage (rename or delete) saved searches. | - |
| 2.7.6.3 | Search App | [FUA-157] | The user shall be able to access his search history to be able to redo a search. | - |
| **2.8** | **Analysis App** | **4.1.8** | **Analysis Application** | - |
| *2.8.1* | *Analysis App* | *4.1.8.1* | *UI functionalities supporting user stories* | - |
| 2.8.1.1 | Analysis App | [FUA-158] | The Analysis Application shall implement functionalities to fulfil the acceptance criteria of [US 53]: As an Authorized User I want to be able to build advanced queries so that I can perform analysis to obtain answers to intelligence questions. | - |
| 2.8.1.2 | Analysis App | [FUA-159] | The Analysis Application shall implement functionalities to fulfil the acceptance criteria of [US 54]: As an Authorized User I want to save the results of a query-based analysis so that I can revisit the results at a later time, repeat the analysis, and share the analysis. | - |
| 2.8.1.3 | Analysis App | [FUA-160] | The Analysis Application shall implement functionalities to fulfil the acceptance criteria of [US 55]: As an Authorized User I want to perform additional link analysis in ANB on the query-based analysis data set so that I exploit the full functionality of ANB to enhance my analysis. | - |
| 2.8.1.4 | Analysis App | [FUA-161] | The Analysis Application shall implement functionalities to fulfil the acceptance criteria of [US 56]: As an Authorized User I want to have tool support to find connection path between entities so that I can investigate if a connection between the entities exist. | - |
| 2.8.1.5 | Analysis App | [FUA-162] | The Analysis Application shall implement functionalities to fulfil the acceptance criteria of [US 57]: As an Authorized User I want to perform pattern of life analysis on events so that I can understand historical activity. | - |
| 2.8.1.6 | Analysis App | [FUA-164] | The Analysis Application shall implement functionalities to fulfil the acceptance criteria of [US 89]: As an Authorized User I want to be able to access a help function that can provide me with information on how to use INTEL-FS2. | - |
| *2.8.2* | *Analysis App* | *4.1.8.2* | *Application Data Set (ADS)* | - |
| 2.8.2.1 | Analysis App | [FUA-166] | It shall be possible to perform multiple, consecutive queries to add data to the set of IIEs to Analysis Data Set (ADS). I.e. the user can chose whether to use the result of the new query to augment the ADS or to replace the ADS with the new query result. When a new query is adding to the ADS, any duplicate IIEs from the multiple queries shall be resolved. Any change to the ADS shall be reflected in all ADS views. | - |
| 2.8.2.2 | Analysis App | [FUA-167] | In case of BSO data in the ADS, it shall be possible to expand the ADS by adding linked BSOs to a user-selected degree of separation from the original BSO set and dynamically update all ADS Views. | - |
| 2.8.2.3 | Analysis App | [FUA-168] | It shall be possible to filter the ADS based on IIE types and remove/ hide IIEs of "unwanted" types and dynamically update all ADS View. | - |
| 2.8.2.4 | Analysis App | [FUA-169] | It shall be possible to filter the ADS based on relationship types and remove/ hide relationships of "unwanted" types and dynamically update all ADS View. | - |
| 2.8.2.5 | Analysis App | [FUA-170] | It shall be possible to filter the ADS based on a Degree Centrality and remove/ hide IIEs falling outside a Degree Centrality window (defined by a lower and an upper and lower limit) and dynamically update all ADS View. | - |
| 2.8.2.6 | Analysis App | [FUA-171] | It shall be possible to select individual IIEs from either of the Table View, GeoView, Relationship View, or Timeline View and remove/ hide such IIEs from the ADS and dynamically update all ADS views. | - |
| 2.8.2.7 | Analysis App | [FUA-172] | It shall be possible to apply a geographical coverage area filter to filter out information from the ADS and dynamically update all ADS views. | - |

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| 2.8.2.8 | Analysis App | [FUA-173] | It shall be possible to filter the ADS based on a time window (e.g. using a time slider UI widget) and remove/ hide IIEs falling outside the of the active time window and dynamically update all ADS views. It shall be possible to dynamically shrink, expand, and shift the time window in time (backwards and forwards in time). | - |
| 2.8.2.9 | Analysis App | [FUA-174] | It shall be possible to apply temporal interval filters. Supported interval filters shall include: filtering out information for specific months of the year in the Gregorian and/ or in the Islamic calendar, and filtering out information from specific weekdays. | - |
| *2.8.3* | *Analysis App* | *4.1.8.3* | *Table Views* | - |
| 2.8.3.1 | Analysis App | [FUA-175] | It shall be possible view all common metadata attributes for ADS IIEs in a Table View Component with all its features as defined in chapter 2. | - |
| 2.8.3.2 | Analysis App | [FUA-176] | The Analysis Application shall support in-place editing of single fields in the Table View (to correct data mistakes that is preventing or hampering the analysis). It shall be possible to handle the edit as local to the analysis, and it shall also be possible (for an authorized user) to commit the edit back to the INTEL-FS repository. | - |
| 2.8.3.3 | Analysis App | [FUA-676] | It shall be possible to calculate centrality values for the data in the ADS and have the centrality values presented in a Table View for all the ADS items where a centrality value can be calculated. The table shall include centrality values for Degree Centralities, Betweenness Centrality, and Closeness Centralities, where the table can be sorted on any of the centrality types and on IIE/ BSO name. | - |
| 2.8.3.4 | Analysis App | [FUA-677] | It shall be possible to select any IIE in the table showing centrality values and have the Relationship View centre on this IIE, and highlight the selected IIE in the Relationship View. | - |
| *2.8.4* | *Analysis App* | *4.1.8.4* | *Relationship Views* | - |
| 2.8.4.1 | Analysis App | [FUA-177] | The Analysis Application shall be able to render the entire ADS and the relationships between the ADS IIEs in a Relationship View using the Relationship View Component with all its features as defined in chapter 2. | - |
| 2.8.4.2 | Analysis App | [FUA-178] | Items selected in Relationship View shall be displayed/ previewed in the Analysis Application. | - |
| *2.8.5* | *Analysis App* | *4.1.8.5* | *Timeline Views* | - |
| 2.8.5.1 | Analysis App | [FUA-179] | The Analysis Application shall use a Timeline View Component with all its features as defined in chapter 2. | - |
| 2.8.5.2 | Analysis App | [FUA-180] | The Analysis Application shall plot the temporal updates to the IIEs in the ADS. The plot shall include relationships between the objects (e.g. see example in the figure below where relationships drawn between an event and two persons). Normally the BSOs shall be placed on the timeline according to the relevant status report ASAT time. However, for some BSO types it shall be possible to select the time value to use for the "placing" of the BSO on the timeline; this include for event BSOs the option of selecting between ASAT time and the event start time for placing the event. | - |
| 2.8.5.3 | Analysis App | [FUA-680] | It shall be possible from within the Timeline View to suppress/ remove IIEs from the view. It shall be possible to select a single or multiple BSOs and remove all updates for the BSO (or BSOs) in the view. | - |
| *2.8.6* | *Analysis App* | *4.1.8.6* | *GeoView* | - |
| 2.8.6.1 | Analysis App | [FUA-181] | It shall be possible to render the entire ADS and the relationships between the ADS IIEs in GeoView defined in chapter 2. | - |
| 2.8.6.2 | Analysis App | [FUA-182] | The Analysis Application shall be able to display all its data (in the ADS) in GeoView. | - |
| 2.8.6.3 | Analysis App | [FUA-183] | It shall be possible to enable and disable a "dynamic update mode" in the Analysis Application where in enabled mode the Analysis Application dynamically updates GeoView whenever there is an update to any of the entities in the ADS. | - |
| 2.8.6.4 | Analysis App | [FUA-184] | An Item selected in GeoView shall be displayed/ previewed in the Analysis Application. | - |
| *2.8.7* | *Analysis App* | *4.1.8.7* | *Animation* | - |
| 2.8.7.1 | Analysis App | [FUA-185] | It shall be possible to dynamically animate the visualization of the ADS in the GeoView and in the Relationship View and in the Timeline View by dragging a time "handle" in the time slider tool. | - |
| 2.8.7.2 | Analysis App | [FUA-685] | During animation, the BSO location on the GeoView shall be the location of the last location update in the status reports. It shall be possible to specify if only 'assessed' reports will be used to update BSO locations or if location from 'contributing' status reports will also be used. | - |
| *2.8.8* | *Analysis App* | *4.1.8.8* | *Pattern of life (PoL) analysis functionalities* | - |
| 2.8.8.1 | Analysis App | [FUA-186] | It shall be possible to render/ plot temporal information in a Histogram vs Timeline View as shown in example in the figure below. | - |
| 2.8.8.2 | Analysis App | [FUA-187] | It shall be possible to render/ plot temporal information in a Polar Coordinate System View as shown in example in the figure below. | - |

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| 2.8.8.3 | Analysis App | [FUA-188] | It shall be possible to plot any type/ category of data in the Polar Coordinate System View both with and without visually distinguishing between the types/ categories (in the figure above the types are visually distinguishable). When distinguishing types/ categories it shall be able to visually distinguish up to 10 different types/ categories of in the diagram. | - |
| 2.8.8.4 | Analysis App | [FUA-189] | It shall be possible from the temporal information to calculate statistics (occurrences by type or other classifier) that is shown in a Radar Plot View as shown in example in the figure below. | - |
| 2.8.8.5 | Analysis App | [FUA-190] | The three Pattern of Life Views (Histogram, Polar Coordinate System, and Radar Chart) shall have support for using different date-time types and intervals to include hours of the day, days of the week (Sunday through Saturday), days of the year, and months of the year in both Gregorian and Islamic calendar. In particular the Polar Coordinate System shall include the five different radial/circumference coordinate pairs as defined in the table below. | - |
| 2.8.8.6 | Analysis App | [FUA-191] | It shall be possible to toggle between the supported date-time types when viewing the temporal data in any of the three pattern of life diagrams (histogram, polar coordinate, and radar chart). | - |
| 2.8.8.7 | Analysis App | [FUA-192] | It shall be possible to compute frequency-based heat maps from temporal information (events) and have the heat-map visualized in GeoView. | - |
| 2.8.8.8 | Analysis App | [FUA-193] | It shall be possible to compute and display a concentration-based heat-map based on the geo-locations of the IIEs in the ADS and have the heat-map visualized in GeoView. | - |
| *2.8.9* | *Analysis App* | *4.1.8.9* | *Save and export functionalities* | - |
| 2.8.9.1 | Analysis App | [FUA-194] | When saving an Analysis it shall be possible to save the visual layout of the Relationship View including manual adjustments and recreate the layout when re-loading the Analysis. | - |
| 2.8.9.2 | Analysis App | [FUA-195] | It shall be possible to save the ADS as a set of queries and filter operations such that the Analysis Application is able to recreate the ADS (by re-running the queries and filter operations). | - |
| **2.9** | **ISR Organization Mgmt App** | **4.1.9** | **ISR Organization Management Application** | **-** |
| *2.9.1* | *ISR Organization Mgmt App* | *4.1.9.1* | *UI functionalities supporting user stories* | - |
| 2.9.1.1 | ISR Organization Mgmt App | [FUA-196] | The ISR Organization Management Application shall implement functionalities to fulfil the acceptance criteria of [US 58]: As an Authorized User I want to create, update, and delete an operation and/ or a named collection so it can be used as mechanism for INTEL-FS2 to support multiple ongoing operations. | - |
| 2.9.1.2 | ISR Organization Mgmt App | [FUA-197] | The ISR Organization Management Application shall implement functionalities to fulfil the acceptance criteria of [US 59]: As an Authorized User I want to create, update and delete ISR units and/or ISR systems so that the ISR unit/ ISR system can be tasked appropriately. | - |
| 2.9.1.3 | ISR Organization Mgmt App | [FUA-198] | The ISR Organization Management Application shall implement functionalities to fulfil the acceptance criteria of [US 61]: As an Authorize User I want to create/ update an ISR ORBAT so Collection Requirements (CR) and collection and exploitation tasks can be distributed to the appropriate ISR units and ISR systems. | - |
| 2.9.1.4 | ISR Organization Mgmt App | [FUA-199] | The ISR Organization Management Application shall implement functionalities to fulfil the acceptance criteria of [US 62]: As an Authorized User I want to view the details of the ISR ORBAT for my situational awareness. | - |
| 2.9.1.5 | ISR Organization Mgmt App | [FUA-201] | The ISR Organization Management Application shall implement functionalities to fulfil the acceptance criteria of [US 89]: As an Authorized User I want to be able to access a help function that can provide me with information on how to use INTEL-FS2. | - |
| *2.9.2* | *ISR Organization Mgmt App* | *4.1.9.2* | *Integrated search and basic actions on search results* | - |
| 2.9.2.1 | ISR Organization Mgmt App | [FUA-202] | The ISR Organization Management Application shall include an integrated search function allowing the user to identify Operational Activities, ISR ORBATs, Units, and ISR Systems can subsequently be selected for inspection and editing. | - |
| 2.9.2.2 | ISR Organization Mgmt App | [FUA-203] | From the search results it shall be possible (for an authorized user) to perform the actions as defined in the table below. | - |
| *2.9.3* | *ISR Organization Mgmt App* | *4.1.9.3* | *Application Data Set (ADS)* | - |
| 2.9.3.1 | ISR Organization Mgmt App | [FUA-704] | It shall be possible to filter the ADS on attributes of the IIEs in the ADS. | - |
| 2.9.3.2 | ISR Organization Mgmt App | [FUA-705] | It shall be possible to apply a geographical coverage area filter to filter out information from the ADSs, and dynamically update all the views of the ADS. | - |
| *2.9.4* | *ISR Organization Mgmt App* | *4.1.9.4* | *IIE View/ Entry Panel* | - |
| 2.9.4 | ISR Organization Mgmt App | [FUA-706] | The ISR Organization Application shall include an IIE View/ Entry Panel as defined in chapter 2 to display and edit IIEs managed by the application. | - |

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| *2.9.5* | *ISR Organization Mgmt App* | *4.1.9.5* | *Table Views* | - |
| 2.9.5.1 | ISR Organization Mgmt App | [FUA-204] | The ISR Organization Management Application shall use the Table View Component with all its features as defined in chapter 2. | - |
| 2.9.5.2 | ISR Organization Mgmt App | [FUA-205] | It shall be possible to view ISR Systems in a Table View where each row represents an ISR System, and the systems attribute values are shown across multiple columns in the table. The Unit that the ISR System is assigned to shall be included as one of the column attributes. | - |
| 2.9.5.3 | ISR Organization Mgmt App | [FUA-206] | It shall be possible to view Units in a Table View where each row represents a Unit, and the Unit attribute values are shown across multiple columns in the table. | - |
| 2.9.5.4 | ISR Organization Mgmt App | [FUA-707] | It shall be possible to select an ISR ORBAT and populate the Table View with all ISR Units in the ISR ORBAT, and by selecting an ISR ORBAT populate the Table View with all ISR Systems in the ISR ORBAT. | - |
| 2.9.5.5 | ISR Organization Mgmt App | [FUA-207] | It shall be possible from a Table View of Units to create/ add new Units and to edit, in-place in the Table, existing Units. | - |
| 2.9.5.6 | ISR Organization Mgmt App | [FUA-208] | It shall be possible from a Table View of ISR Systems to create/ add new ISR Systems and to edit, in-place in the Table, existing ISR Systems. | - |
| 2.9.5.7 | ISR Organization Mgmt App | [FUA-209] | It shall be possible from a Table View of ISR Systems to reassign ISR Systems from one Unit to another by dragging and dropping ISR Systems from one Unit group to another Unit group. | - |
| *2.9.6* | *ISR Organization Mgmt App* | *4.1.9.6* | *Relationship Views* | - |
| 2.9.6.1 | ISR Organization Mgmt App | [FUA-210] | The ISR Organization Management Application shall use the Relationship View Component with all its features as defined in chapter 2. | - |
| 2.9.6.2 | ISR Organization Mgmt App | [FUA-211] | It shall be possible from a Hierarchy (organigram) layout of the ISR ORBAT in the Relationship View to move a Unit's position in the command hierarchy by dragging and dropping a Unit (and its subordinate Units) with the ISR ORBAT hierarchy. | - |
| 2.9.6.3 | ISR Organization Mgmt App | [FUA-212] | Items selected in Relationship View shall be displayed/ previewed in the ISR Organization Management Application. | - |
| *2.9.7* | *ISR Organization Mgmt App* | *4.1.9.7* | *GeoView* | - |
| 2.9.7.1 | ISR Organization Mgmt App | [FUA-213] | The ISR Organization Management Application shall integrate with and control the GeoView component as described in chapter 2. | - |
| 2.9.7.2 | ISR Organization Mgmt App | [FUA-214] | The ISR Organization Management Application shall be able to display Units and ISR Systems the GeoView. | - |
| 2.9.7.3 | ISR Organization Mgmt App | [FUA-215] | An item selected in GeoView shall be displayed/ previewed in the ISR Organization Management Application. | - |
| **2.10** | **IRM App** | **4.1.10** | **IRM Application** | - |
| *2.10.1* | *IRM App* | *4.1.10.1* | *UI functionalities supporting user stories* | - |
| 2.10.1.1 | IRM App | [FUA-216] | The IRM Application shall implement functionalities to fulfil the acceptance criteria of [US 64]: As an Authorized User I want to be able to create and update PIRs, SIRs, EEIs, and Indicators to guide/ direct the intelligence collection process. | - |
| 2.10.1.2 | IRM App | [FUA-217] | The IRM Application shall implement functionalities to fulfil the acceptance criteria of [US 65]: As an Authorized User I want to track the status of PIRs, SIRs, EEIs and indicators so I can understand whether they are being addressed or not. | - |
| 2.10.1.3 | IRM App | [FUA-218] | The IRM Application shall implement functionalities to fulfil the acceptance criteria of [US 66]: As an Authorized User I want to create/ update an Intelligence Collection Plan (ICP) so I can capture all related PIRs, SIRs, EEIs, and indicators relevant to an operation. | - |
| 2.10.1.4 | IRM App | [FUA-219] | The IRM Application shall implement functionalities to fulfil the acceptance criteria of [US 67]: As an Authorized User I want to create/ update an RFI so that I can formulate a question to be answered by a higher, lower, adjacent command, or by a nation to address my intelligence gap. | - |
| 2.10.1.5 | IRM App | [FUA-220] | The IRM Application shall implement functionalities to fulfil the acceptance criteria of [US 69]: As an Authorized User I want to forward a RFI that cannot be answered within my own organization to a different organization so that the RFI can be answered. | - |
| 2.10.1.6 | IRM App | [FUA-221] | The IRM Application shall implement functionalities to fulfil the acceptance criteria of [US 70]: As an Authorized User I want to update the status of an RFI to control the workflow of the RFI (e.g. to cancel RFIs that will no longer provide any value). | - |
| 2.10.1.7 | IRM App | [FUA-222] | The IRM Application shall implement functionalities to fulfil the acceptance criteria of [US 71]: As an Authorized User I want to be able to view the status of the RFIs to check that the RFIs are being actioned. | - |

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| 2.10.1.8 | IRM App | [FUA-223] | The IRM Application shall implement functionalities to fulfil the acceptance criteria of [US 72]: As an Authorized User I want to create/ update a response to the RFI so the RFI originator can receive the relevant intelligence to answer the intelligence gap. | - |
| 2.10.1.9 | IRM App | [FUA-224] | The IRM Application shall implement functionalities to fulfil the acceptance criteria of [US 73]: As an Authorized User I want to transform RFI to a readable format (PDF) so that the RFI can be shared with users not having access to INTEL-FS2. | - |
| 2.10.1.10 | IRM App | [FUA-225] | The IRM Application shall implement functionalities to fulfil the acceptance criteria of [US 89]: As an Authorized User I want to be able to access a help function that can provide me with information on how to use INTEL-FS2. | - |
| *2.10.2* | *IRM App* | *4.1.10.2* | *Integrated search and basic actions on search results* | - |
| 2.10.2.1 | IRM App | [FUA-226] | The IRM Application shall include an integrated search function that supports searching for ICPs, PIRs, SIRs, EEIs, Indicators, RFIs, RFI responses, NAIs, Products, BSOs and Targets in different workflow states (see NATO::JISR::Metadata::PublishedStatusType in [INTEL-FS2-InformationModel]). It shall be possible to add all search results to the ADS. | - |
| 2.10.2.2 | IRM App | [FUA-227] | From the search results it shall be possible (for an authorized user) to perform the actions as defined in the table below. | - |
| *2.10.3* | *IRM App* | *4.1.10.3* | *Application Data Set (ADS)* | - |
| 2.10.3.1 | IRM App | [FUA-228] | It shall be possible to filter the ADS on attributes of the IIEs in the ADS, including constraining the ADS to a specific operation or named collection, to a specific ICP, originator of the data, status values of IRs and RFIs, etc. and dynamically update all the views of the ADS. | - |
| 2.10.3.2 | IRM App | [FUA-229] | It shall be possible to apply a geographical coverage area filter to filter out information from the ADSs, and dynamically update all the views of the ADS. | - |
| 2.10.3.3 | IRM App | [FUA-230] | It shall be possible to filter the ADS based on a time window (e.g. using a time slider UI widget) and remove/ hide IIEs falling outside the of the active time window (e.g. using Last Report Date and latest time information is of value (LTIOV) attributes, BSO ASAT times, product modification times, etc.) and dynamically update all the views of the ADS. It shall be possible to dynamically shrink, expand, and shift the time window in time (backwards and forwards in time). | - |
| 2.10.3.4 | IRM App | [FUA-231] | It shall be possible to save search + filter settings as named user-specific filters for the IRM Application to be able to recreate the ADS. | - |
| *2.10.4* | *IRM App* | *4.1.10.4* | *IIE View/ Entry Panel* | - |
| 2.10.4.1 | IRM App | [FUA-731] | The IRM Management Application shall include an IIE View/ Entry Panel as defined in chapter 2 to display and edit IIEs managed by the application. | - |
| *2.10.5* | *IRM App* | *4.1.10.5* | *Table Views* | - |
| 2.10.5.1 | IRM App | [FUA-232] | The IRM Application shall use the Table View Component with all its features as defined in chapter 2. | - |
| 2.10.5.2 | IRM App | [FUA-233] | It shall be possible to view a set of IRs in a Table View where each row represents an IR, and the IR attribute values are shown across multiple columns in the table. The operation or named collection, the ICP, the indicator (in case a IR is linked to more than one indicator then the indicator shall be delimited within the same column, etc. shall all be included as column attributes. | - |
| 2.10.5.3 | IRM App | [FUA-234] | It shall be possible to select between a set of standard and predefined layouts of the Table View (the purpose of this is to allow the user to quickly organize the Table View for the task at hand; e.g. there might be a particular layout for the export to comma-separated values (CSV) files, etc.) | - |
| 2.10.5.4 | IRM App | [FUA-235] | It shall be possible to edit (including deleting) IRs directly in a Table View. | - |
| 2.10.5.5 | IRM App | [FUA-236] | It shall be possible to view a set of Indicators in an (Indicator) Table View where each row represents an Indicator and the Indicator attribute values are shown across multiple columns in the table. The IR that the Indicator is linked to, and all other IIEs of different types that the Indicator is linked to shall all be included as column attributes. | - |
| 2.10.5.6 | IRM App | [FUA-237] | It shall be possible to select the IIEs the Indicator is linked to within the Table View and have all the details of the IIE presented previewed in a dialog window. | - |
| 2.10.5.7 | IRM App | [FUA-238] | It shall be possible to view a set of RFIs in a Table View where each row represents an RFI, and the RFI attribute values are shown across multiple columns in the table. The IR that the RFI is linked to shall be included as one of the column attributes. RFI responses shall also be reported on in each row. | - |
| 2.10.5.8 | IRM App | [FUA-239] | It shall be possible display the RFI responses grouped by RFIs in a Table View. | - |
| 2.10.5.9 | IRM App | [FUA-240] | It shall be possible to export the content of the Table View to a file in XML format. | - |
| *2.10.6* | *IRM App* | *4.1.10.6* | *Relationships View* | - |
| 2.10.6.1 | IRM App | [FUA-241] | The IRM Application shall use the Relationship View Component with all its features as defined in chapter 2. | - |

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| 2.10.6.2 | IRM App | [FUA-242] | The IRM Application shall be able to display an ICP with its PIRs, SIRs, EEIs and indicators in the Relationship View. The user can expand the information in the Relationship View by selecting individual IIEs and bring into the view all IIEs (of any type) linked to the selected IIEs. | - |
| 2.10.6.3 | IRM App | [FUA-243] | The IRM Application shall be able to display RFIs, RFI responses and EEIs in the Relationship View. The user can expand the information in the Relationship View by selecting individual IIEs and bring into the view all IIEs (of any type) linked to the selected IIEs. | - |
| 2.10.6.4 | IRM App | [FUA-244] | It shall be possible to use Degree Centrality filtering to filter out all RFIs with more than a specified number of RFI responses (e.g. to show only unanswered RFIs in the Relationship View), and to filter out RFIs with less than a specified number of RFI responses. | - |
| 2.10.6. | IRM App | [FUA-245] | Items selected in Relationship View shall be displayed/ previewed in the IRM Application. | - |
| *2.10.7* | *IRM App* | *4.1.10.7* | *Gantt Views* | - |
| 2.10.7.1 | IRM App | [FUA-246] | The IRM Application Gant View shall be implemented using, or including, the Gant View Component with all its features as defined in chapter 2. | - |
| 2.10.7.2 | IRM App | [FUA-247] | It shall be possible to visualize the selected set of IRs in a Gantt View grouped by IR hierarchy (PIR/SIR/EEI) where also linked Indicators at all levels in the IR hierarchy is visualized. | - |
| 2.10.7.3 | IRM App | [FUA-747] | It shall be possible to delete an IR in an IR hierarchy and have also all child IRs of the IR deleted (e.g. by deleting a PIR, all SIRs linked to that PIR shall be deleted, and all EEIs linked to these SIRs are also deleted), pending that the child IRs are not linked to any other superior IRs (e.g. EEIs can be typically reused in different SIRs that may be subordinate to different PIRs). | - |
| 2.10.7. | IRM App | [FUA-248] | It shall be possible to visualize the selected set of IRs in the Gantt View grouped by multiple ICPs. | - |
| 2.10.7.5 | IRM App | [FUA-249] | It shall be possible when visualizing the selected IRs in the Gantt View to also present information on the IRs' associated BSOs and Targets. | - |
| 2.10.7.6 | IRM App | [FUA-250] | It shall be possible within the timeline part of the Gantt View to display IR time-based attributes (e.g. Latest Report Time and LTIOV as milestone symbols). | - |
| 2.10.7.7 | IRM App | [FUA-251] | The Gantt View shall show the RFIs (and RFI responses) grouped by IRs (when the RFI is linked to an IR) and where the IR hierarchy (PIR/SIR/EEI) is also shown/depicted. RFIs with no IR association shall be grouped under a "no IR" group. RFI responses shall be grouped under their respective RFIs in the Gantt View. | - |
| 2.10.7.8 | IRM App | [FUA-252] | It shall be possible within the timeline part of the Gantt View to display status value changes as annotated events/ milestones. | - |
| *2.10.8* | *IRM App* | *4.1.10.8* | *GeoView* | - |
| 2.10.8. | IRM App | [FUA-253] | The IRM Application shall integrate with and control the GeoView component as described in chapter 2. | - |
| 2.10.8.2 | IRM App | [FUA-254] | The IRM Application shall be able to show PIRs, SIRs, EEI, indicators, and RFIs in GeoView where status values of the IRs and RFIs can be used to select how they are rendered (options to include symbols vs shapes and colour coding). E.g. using colours based on the RFIs status values (SUBMITTED, RESUBMITTED, FULFILLED or STOPPED) | - |
| 2.10.8.3 | IRM App | [FUA-255] | The IRM Application shall display geographical areas of interests, BSOs, Targets, and Products linked to IRs and/ or RFIs in GeoView. | - |
| 2.10.8. | IRM App | [FUA-256] | Items selected in GeoView shall be displayed/ previewed in the IRM Application. | - |
| *2.10.9* | *IRM App* | *4.1.10.9* | *Chart Views (statistical analysis)* | - |
| 2.10.9.1 | IRM App | [FUA-257] | The IRM Application Chart View shall use the Chart View Component with all its features as defined in chapter 2. | - |
| 2.10.9.2 | IRM App | [FUA-258] | From the set of RFIs identified through search and filtering operations it shall be possible to plot Number of RFIs (in the set) by Status values, and by Organization, as bar charts and pie charts. | - |
| 2.10.9.3 | IRM App | [FUA-259] | From the set of RFIs identified through search and filtering operations it shall be possible to plot Number of RFI Responses (in the set) by Status, and by Organization, as bar charts and pie charts. | - |
| 2.10.9.4 | IRM App | [FUA-260] | It shall be possible to turn developed charts into named templates to be reused again and again to reproduce statistical diagrams with the same layout for other sets of RFIs. | - |
| *2.10.10* | *IRM App* | *4.1.10.10* | *Document View* | - |
| 2.10.10.1 | IRM App | [FUA-261] | The IRM Application Document View shall be able to collect all information about an RFI (including all ForAction information and RFI responses) and present the information in a readable form. It shall be possible to export this RFI document view to a PDF file. | - |
| **2.11** | **CRM App** | **4.1.11** | **CRM Application** | **-** |
| *2.11.1* | *CRM App* | *4.1.11.1* | *Basic CR functionalities using STANAG 4559 services* | - |
| 2.11.1.1 | CRM App | [FUA-283] | The CRM Application shall enable the user to create ISR Requests (i.e. a CR with addressee information) and submit these to the STANAG 4559/AEDP-19 workflow services. | - |

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| 2.11.1.2 | CRM App | [FUA-284] | The CRM Application shall enable the user to link ISR Requests to resulting exploitation products using the STANAG 4559/AEDP-19 workflow services. | - |
| 2.11.1.3 | CRM App | [FUA-285] | The CRM Application shall enable the user to view the status of ISR Requests using the STANAG 4559/AEDP-19 workflow services. | - |

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| **Total of WP 1.1** | - |

| CLIN | Deliverable | SRS reference | Description | Price | Optional Comments (Mandatory for zero costs lines) |
|---|---|---|---|---|---|
| | | | **Declare Currency =>** | - | |
| **3** | | **4.2** | **Phase 2 - New user interfaces** | **-** | |
| **3.6** | **BM JIPOE App** | **4.2.6** | **BM JIPOE Application (using mock backend)** | **-** | |
| *3.6.1* | *BM JIPOE App* | *4.2.6.1* | *UI functionalities supporting user stories* | - | |
| 3.6.1.1 | BM JIPOE App | [FUA-286] | The BM JIPOE Application shall implement functionalities to fulfil the acceptance criteria of [US 42]: As an Authorized User I want to create/ update a multi-criteria decision analysis (MCDA) comparison framework so that I can rank the different OPFOR COAs (e.g. as most likely and most dangerous). | - | |
| *3.6.2* | *BM JIPOE App* | *4.2.6.2* | *Dynamic Intelligence Report (DIR) editor and message publisher* | - | |
| 3.6.2.1 | BM JIPOE App | [FUA-288] | The BM JIPOE Application shall provide a tool or editor that enable the user to create Dynamic Intelligence Reports with the information content as specified in [APP11D-DIR]. The DIR, as an [APP11D-DIR] XML message, shall be posted onto the SOA & IdM Platform. | - | |
| **3.10** | **IRM App** | **4.2.10** | **IRM Application** | **-** | |
| *3.10.1* | *IRM App* | *4.2.10.1* | *UI functionalities supporting user stories* | - | |
| 3.10.1.1 | IRM App | [FUA-291] | The IRM Application shall implement functionalities to fulfil the acceptance criteria of [US 68]: As an Authorized User I want to attach an effect/ task verb to the RFI so that I can specify what is required from the tasked unit and subsequently support the MOE analysis post completion. | - | |
| *3.10.2* | *IRM App* | *4.2.10.2* | *GeoView (enhanced)* | - | |
| 3.10.2.1 | IRM App | [FUA-292] | When using geometric shapes in the GeoView then it shall be possible, from a palette of different shapes, to select shapes to be used for RFIs with different effects/ tasks verb. | - | |
| *3.10.3* | *IRM App* | *4.2.10.3* | *Chart Views (enhanced)* | - | |
| 3.10.3.1 | IRM App | [FUA-293] | From the set of RFIs identified through search and filtering operations it shall in the Chart View be possible to plot Number of RFIs (in the set) by Status values, and by effect/ task verb, by degree of effectiveness, etc. as bar charts and pie charts. | - | |
| **3.11** | **CRM App** | **4.2.11** | **CRM Application (using mock backend)** | **-** | |
| *3.11.1* | *CRM App* | *4.2.11.1* | *UI functionalities supporting user stories* | - | |
| 3.11.1.1 | CRM App | [FUA-294] | The CRM Application shall implement functionalities to fulfil the acceptance criteria of [US 74]: As an Authorized User I want to create a prioritization scheme so all CRs can be ordered in terms of priority ranking based on a prescribed criteria and weighting. | - | |
| 3.11.1.2 | CRM App | [FUA-295] | The CRM Application shall implement functionalities to fulfil the acceptance criteria of [US 75]: As an Authorized User I want to create a CR so it can be prioritised and assigned for collection and exploitation. | - | |
| *3.11.2* | *CRM App* | *4.2.11.2* | *IIE View/ Entry Panel* | - | |
| 3.11.2.1 | CRM App | [FUA-297] | The CRM Application shall implement data entry forms (using the IIE View/ Entry Panel as defined in chapter 2) that enables the user to enter/ update all attributes of a CR and related CR workflow information (For Action, For Information, etc.) as defined by [INTEL-FS2-InformationModel]. | - | |
| **3.12** | **COM App** | **4.2.12** | **COM Application (using mock backend)** | **-** | |
| *3.12.1* | *COM App* | *4.2.12.1* | *UI functionalities supporting user stories* | - | |
| 3.12.1.1 | COM App | [FUA-298] | The COM Application shall implement functionalities to fulfil the acceptance criteria of [US 82]: As an Authorized User I want to create/ update a collection or exploitation task so the ISR systems under my command receives clear tasking. | - | |
| *3.12.2* | *COM App* | *4.2.12.2* | *IIE View/ Entry Panel* | - | |
| 3.12.2.1 | COM App | [FUA-300] | The COM Application shall implement data entry forms (using the IIE View/ Entry Panel as defined in chapter 2) that enables the user to enter/ update all attributes of a Collection and Exploitation Plan (CXP) as defined by [INTEL-FS2-InformationModel]. | - | |

| **Total of WP 1.2** | **-** |
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| CLIN | Deliverable | SRS reference | Description | Price | Optional Comments (Mandatory for zero costs lines) |
|---|---|---|---|---|---|
| | | | **Declare Currency =>** | - | |
| **4** | | **4.3** | **Phase 3 - Full integration with new backend API** | | **-** |
| **4.1** | **Dashboard App** | **4.3.1** | **Dashboard Application (new backend)** | | **-** |
| *4.1.1* | *Dashboard App* | *4.3.1.1* | *UI functionalities supporting user stories* | | **-** |
| 4.1.1.1 | Dashboard App | [FUA-301] | The Dashboard Application shall implement functionalities to fulfil the acceptance criteria of [US 12]: As an Authorized User I want to configure INTEL-FS2 so that I receive e-mail notifications (in my normal email tool; i.e. Microsoft Outlook) when new data that I am interested in is entered to INTEL-FS2. | | **-** |
| 4.1.1.2 | Dashboard App | [FUA-302] | The Dashboard Application shall implement functionalities to fulfil the acceptance criteria of [US 14]: As an Authorized User I want to configure INTEL-FS2 so that I receive notifications to my Dashboard Application when new data that I am interested in is entered to INTEL-FS2. | | **-** |
| *4.1.2* | *Dashboard App* | *4.3.1.2* | *UI integrated with new backend (no regression)* | | **-** |
| 4.1.2.1 | Dashboard App | [FUA-303] | The I2UA with Dashboard Application shall be fully integrated with the new I2BE backend. There shall be no regression from previously implemented functionalities, and the application user interface shall be adapted to fully support the [INTEL-FS2-InformationModel] as exposed through the I2BE API. | | **-** |
| *4.1.3* | *Dashboard App* | *4.3.1.3* | *Messaging with I2BE* | | **-** |
| 4.1.3.1 | Dashboard App | [FUA-304] | The I2UA with Dashboard Application shall implement Service Mesh service-to-service messaging with the I2BE. I.e. I2UA server-side services shall be able to send and receive messages from the I2BE. | | **-** |
| 4.1.3.2 | Dashboard App | [FUA-305] | The I2UA shall when receiving such notification messages from the I2BE push the notifications (when relevant) to the appropriate users so that the messages appear in their application user interface the messages (e.g. using WebSocket) and appear on the Dashboard. | | **-** |
| 4.1.3.3 | Dashboard App | [FUA-306] | The I2UA shall place a visual indication of a received notification in all of I2UA user applications (not only in the Dashboard Application), and make the details of the notification available on the Dashboard Application. | | **-** |
| 4.1.3.4 | Dashboard App | [FUA-307] | It shall be possible to create and/or update (i.e. subscribe to) notifications from saved and named searches and queries such that any new results from such searches or queries will be sent as a notification to the user. It shall also be possible to remove/ delete previously defined notification subscriptions. | | **-** |
| 4.1.3.5 | Dashboard App | [FUA-308] | It shall be possible to associate notifications with user-defined categories so that the notifications in its Table View can be grouped by the categories, and collapse/ expand notification categories to control what is being displayed on the screen. | | **-** |
| **4.2** | **Products Management App** | **4.3.2** | **Products Management Application (new backend)** | | **-** |
| *4.2.1* | *Products Management App* | *4.3.2.1* | *UI integrated with new backend (no regression)* | | **-** |
| 4.2.1.1 | Products Management App | [FUA-309] | The I2UA with Products Management Application shall be fully integrated with the new I2BE backend. There shall be no regression from previously implemented functionalities, and the application user interface shall be adapted to fully support the [INTEL-FS2-InformationModel] as exposed through the I2BE API. | | **-** |
| *4.2.2* | *Products Management App* | *4.3.2.2* | *Video Player* | | **-** |
| 4.2.2.1 | Products Management App | [FUA-310] | The Products Management Application shall be able to play STANAG 4609 videos and support playing, pausing, timeline scrubbing forward and backward in the video to position the video at a new start point for the video playback. | | **-** |
| 4.2.2.2 | Products Management App | [FUA-311] | The Products Management Application shall when playing STANAG 4609 videos display, and dynamically update, metadata received in the video stream. The metadata that shall be displayed and dynamically updated shall as a minimum include (if included in the video stream) the metadata listed in the table below. | | **-** |
| 4.2.2.3 | Products Management App | [FUA-312] | The Products Management Application shall when playing STANAG 4609 videos synchronously display the video frame footprint (ground coverage area) and the video sensor platform in GeoView dynamically updating the footprint and sensor position. | | **-** |
| **4.3** | **BSO Management App** | **4.3.3** | **BSO Management Application (new backend)** | | **-** |
| *4.3.1* | *BSO Management App* | *4.3.3.1* | *UI functionalities supporting user stories* | | **-** |

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| 4.3.1.1 | BSO Management App | [FUA-313] | The BSO Management Application shall implement functionalities to fulfil the acceptance criteria of [US 20]: As an Authorized User I want to be able to link to EOB data and associated electronic warfare derived TECHINT so that a complete understanding across all components of an opposing force (OPFOR) ORBAT can be obtained. | - |
| *4.3.2* | *BSO Management App* | *4.3.3.2* | *UI integrated with new backend (no regression)* | - |
| 4.3.2.1 | BSO Management App | [FUA-314] | The I2UA with BSO Management Application shall be fully integrated with the new I2BE backend. There shall be no regression from previously implemented functionalities, and the application user interface shall be adapted to fully support the [INTEL-FS2-InformationModel] as exposed through the I2BE API. | - |
| *4.3.3* | *BSO Management App* | *4.3.3.3* | *UI extended with support for BM BSO extensions* | - |
| 4.3.3.1 | BSO Management App | [FUA-315] | All user interfaces of the BSO Management Application shall be updated/ enhanced so support management of BSOs and BSRs on all BM-related BSOs and BSRs as defined [INTEL-FS2-InformationModel] (e.g. BM equipment, BM equipment types (BM TECHINT), BM historical firing events (HFE), BM units, BM locations, etc.) | - |
| 4.3.3.2 | BSO Management App | [FUA-316] | It shall be possible to link BM ORBAT holdings with BM TECHINT data as in accordance with [INTEL-FS2-InformationModel]. | - |
| 4.3.3.3 | BSO Management App | [FUA-317] | Relevant user interfaces of the BSO Management Application shall be updated/ enhanced so support viewing of BSOs and BSRs on all electronic order of battle (EOB) related BSOs and BSRs as defined [INTEL-FS2-InformationModel]. | - |
| *4.3.4* | *BSO Management App* | *4.3.3.4* | *EOB equipment and EOB-associated equipment types functionalities* | - |
| 4.3.4.1 | BSO Management App | [FUA-318] | The BSO Management Application integrated search function shall be enhanced to support searching for EOB equipment and EOB-associated equipment types. | - |
| 4.3.4.2 | BSO Management App | [FUA-319] | The BSO Management Application filtering functionality shall be enhanced to support filtering on an attributes of EOB equipment and EOB-associated equipment types as defined in [INTEL-FS2-InformationModel]. | - |
| **4.4** | **Target App** | **4.3.4** | **Targets Application** | - |
| *4.4.1* | *Target App* | *4.3.4.1* | *UI functionalities supporting user stories* | - |
| 4.4.1.1 | Target App | [FUA-320] | The Targets Application shall implement functionalities to fulfil the acceptance criteria of [US 30]: As an Authorized User I want to view targets from various types of target lists superimposed on a map so that I improve my situational awareness of BSOs relevant to me. | - |
| 4.4.1.2 | Target App | [FUA-321] | The Targets Application shall implement functionalities to fulfil the acceptance criteria of [US 31]: As an Authorized User I want to view targeting attributes of the individual targets/ BSOs from the various target lists so that I improve my situational awareness of targets/ BSOs relevant to me. | - |
| 4.4.1.3 | Target App | [FUA-322] | The Targets Application shall implement functionalities to fulfil the acceptance criteria of [US 32]: As an Authorized User I want to improve and enhance information on targets/ BSOs so that I can provide support to targeting. | - |
| 4.4.1.4 | Target App | [FUA-324] | The Targets Application shall implement functionalities to fulfil the acceptance criteria of [US 89]: As an Authorized User I want to be able to access a help function that can provide me with information on how to use INTEL-FS2. | - |
| *4.4.2* | *Target App* | *4.3.4.2* | *Integrated search and basic actions on search results* | - |
| 4.4.2.1 | Target App | [FUA-326] | The Targets Application shall include an integrated search function allowing the user to identify target lists that can subsequently be viewed. | - |
| 4.4.2.2 | Target App | [FUA-327] | The integrated search function shall be able to find information associated with targets in the target list like BSOs, battle damage assessment (BDA) reports, collection requirements (CR), and ISR Systems tasked to the linked CR. | - |
| 4.4.2.3 | Target App | [FUA-328] | From the search results it shall be possible (for an authorized user) to perform the actions as defined in the table below. | - |
| *4.4.3* | *Target App* | *4.3.4.3* | *Application Data Set (ADS)* | - |
| 4.4.3.1 | Target App | [FUA-329] | It shall be possible to filter the set of targets to be viewed on specific target lists, Basic Encyclopaedia (BE) Number, target identifier, etc. and hide filtered-out targets (and target lists), and dynamically update the information/ content in the different target views. | - |
| *4.4.4* | *Target App* | *4.3.4.4* | *IIE View/ Entry Panel* | - |
| 4.4.4.1 | Target App | [FUA-829] | The Targets Application shall include an IIE View/ Entry Panel as defined in chapter 2 to display and edit IIEs managed by the application. | - |
| *4.4.5* | *Target App* | *4.3.4.5* | *Table Views* | - |
| 4.4.5.1 | Target App | [FUA-330] | The Targets Application shall use the Table View Component with all its features as defined in chapter 2. | - |

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| 4.4.5.2 | Target App | [FUA-331] | It shall be possible to view a set of targets in a Table View where each row represents a target, and the target attribute values are shown across multiple columns in the table. The Target List that the target is linked to shall be included as a column attribute. | - |
| *4.4.6* | *Target App* | *4.3.4.6* | *Relationship Views* | - |
| 4.4.6.1 | Target App | [FUA-332] | The Targets Application shall use the Relationship View Component with all its features as defined in chapter 2. | - |
| 4.4.6.2 | Target App | [FUA-333] | The Targets Application shall have functionality for selecting a particular target list and have all targets on that list displayed in a Relationship View. The user can expand the information in the Relationship View by selecting individual IIEs and bring into the view all IIEs (of any type) linked to the selected IIEs. | - |
| 4.4.6.3 | Target App | [FUA-334] | The Targets Application shall have functionality for selecting a No-strike List and have all BSOs on that list displayed in a Relationship View. The user can expand the information in the Relationship View by selecting individual IIEs and bring into the view all IIEs (of any type) linked to the selected IIEs. | - |
| 4.4.6.4 | Target App | [FUA-335] | The Targets Application shall have functionality for selecting a Candidate Target List and have all BSOs on that list displayed in a Relationship View. The user can expand the information in the Relationship View by selecting individual IIEs and bring into the view all IIEs (of any type) linked to the selected IIEs. | - |
| 4.4.6.5 | Target App | [FUA-336] | Items selected in Relationship View shall be displayed/ previewed in the Targets Application. | - |
| *4.4.7* | *Target App* | *4.3.4.7* | *GeoView* | - |
| 4.4.7.1 | Target App | [FUA-337] | The Targets Application shall integrate with and control the GeoView component as described in chapter 2. | - |
| 4.4.7.2 | Target App | [FUA-338] | The Targets Application shall have functionality for selecting a particular target list and have all targets on that list displayed and highlighted in GeoView. | - |
| 4.4.7.3 | Target App | [FUA-339] | The Targets Application shall have functionality for selecting a No-strike List and have all BSOs on that list displayed and highlighted in GeoView. | - |
| 4.4.7.4 | Target App | [FUA-340] | The Targets Application shall have functionality for selecting a Candidate Target List and have all BSOs on that list displayed and highlighted in GeoView. | - |
| 4.4.7.5 | Target App | [FUA-341] | Items selected in GeoView shall be displayed/ previewed in the Targets Application. | - |
| **4.5** | **INTEL Situation App** | **4.3.5** | **Intelligence Situation Application (new backend)** | - |
| *4.5.1* | *INTEL Situation App* | *4.3.5.1* | *UI integrated with new backend (no regression)* | - |
| 4.5.1.1 | INTEL Situation App | [FUA-342] | The I2UA with Intelligence Situation Application shall be fully integrated with the new I2BE backend. There shall be no regression from previously implemented functionalities, and the application user interface shall be adapted to fully support the [INTEL-FS2-InformationModel] as exposed through the I2BE API. | - |
| **4.6** | **BM JIPOE App** | **4.3.6** | **BM JIPOE Application (new backend)** | - |
| *4.6.1* | *BM JIPOE App* | *4.3.6.1* | *UI functionalities supporting user stories* | - |
| 4.6.1.1 | BM JIPOE App | [FUA-343] | The BM JIPOE Application shall implement functionalities to fulfil the acceptance criteria of [US 36]: As an Authorized User I want to create/ update areas, so that I can confine/ focus my operating environment (OE) analysis. | - |
| 4.6.1.2 | BM JIPOE App | [FUA-344] | The BM JIPOE Application shall implement functionalities to fulfil the acceptance criteria of [US 37]: As an Authorized User I want to create/ update a named collection for the OE, so that I can establish a grouping of the information for the collaborative JIPOE process. | - |
| 4.6.1.3 | BM JIPOE App | [FUA-345] | The BM JIPOE Application shall implement functionalities to fulfil the acceptance criteria of [US 38]: As an Authorized User I want to organize information items in overlays to support multiple analyses of the OE. | - |
| 4.6.1.4 | BM JIPOE App | [FUA-346] | The BM JIPOE Application shall implement functionalities to fulfil the acceptance criteria of [US 39]: As an Authorized User I want to exploit a multitude of overlays so that I can evaluate the OE. | - |
| 4.6.1.5 | BM JIPOE App | [FUA-347] | The BM JIPOE Application shall implement functionalities to fulfil the acceptance criteria of [US 40]: As an Authorized User I want to create/ update actors (e.g. Nations of Concern), so that I can include actor analysis into the JIPOE process. | - |
| 4.6.1.6 | BM JIPOE App | [FUA-348] | The BM JIPOE Application shall implement functionalities to fulfil the acceptance criteria of [US 41]: As an Authorized User I want to view the actor information in different views to support my analysis of the actor. | - |
| 4.6.1.7 | BM JIPOE App | [FUA-349] | The BM JIPOE Application shall implement functionalities to fulfil the acceptance criteria of [US 43]: As an Authorized User I want to be able to create/ update and define OPFOR BM COAs so that these can subsequently be used for OPFOR BM COA comparisons and OPFOR BM COA rankings. | - |

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| 4.6.1.8 | BM JIPOE App | [FUA-350] | The BM JIPOE Application shall implement functionalities to fulfil the acceptance criteria of [US 44]: As an Authorized User I want to be able to compare OPFOR BM COAs so these can be ranked in importance (e.g. most likely OPFOR BM COA and most dangerous OPFOR BM COA). | - |
| 4.6.1.9 | BM JIPOE App | [FUA-351] | The BM JIPOE Application shall implement functionalities to fulfil the acceptance criteria of [US 45]: As an Authorized User I want to assess OPFOR BM COA predictions against actual observations to subsequently improve my OPFOR BM COA predictions. | - |
| 4.6.1.10 | BM JIPOE App | [FUA-352] | The BM JIPOE Application shall implement functionalities to fulfil the acceptance criteria of [US 46]: As an Authorized User I want to use new information that can be extracted from HFEs to update my understanding of the opposing BM force. | - |
| 4.6.1.11 | BM JIPOE App | [FUA-353] | The BM JIPOE Application shall implement functionalities to fulfil the acceptance criteria of [US 47]: As an Authorized User I want to fill my intelligence gaps to support the BM JIPOE process. | - |
| 4.6.1.12 | BM JIPOE App | [FUA-355] | The BM JIPOE Application shall implement functionalities to fulfil the acceptance criteria of [US 89]: As an Authorized User I want to be able to access a help function that can provide me with information on how to use INTEL-FS2. | - |
| *4.6.2* | *BM JIPOE App* | *4.3.6.2* | *UI integrated with new backend (no regression)* | - |
| 4.6.2.1 | BM JIPOE App | [FUA-356] | The I2UA with the BM JIPOE Application shall be fully integrated with the new I2BE backend. There shall be no regression from previously implemented functionalities, and the application user interface shall be adapted to fully support the [INTEL-FS2-InformationModel] as exposed through the I2BE API. | - |
| *4.6.3* | *BM JIPOE App* | *4.3.6.3* | *Create and/ or update functionalities* | - |
| 4.6.3.1 | BM JIPOE App | [FUA-358] | The BM JIPOE Application shall when creating BSRs always link these to a COA. | - |
| *4.6.4* | *BM JIPOE App* | *4.3.6.4* | *Integrated search and basic actions on search results* | - |
| 4.6.4.1 | BM JIPOE App | [FUA-359] | The BM JIPOE Application shall include an integrated search function allowing the user to identify Operation Environment Evaluations (OE), Actors Evaluations, Courses of Action (COA), Areas at Risk (AAR), all BSO types, products, PIRs, SIRs, EEIs, RFIs, CR, BM OPFOR Comparison Records, etc.) | - |
| 4.6.4.2 | BM JIPOE App | [FUA-360] | From the search results it shall be possible (for an authorized user) to perform the actions as defined in the table below. | - |
| *4.6.5* | *BM JIPOE App* | *4.3.6.5* | *Application Data Set (ADSD)* | - |
| 4.6.5.1 | BM JIPOE App | [FUA-361] | It shall be possible to perform multiple, consecutive queries to add data to the ADS. I.e. the user can chose whether to use the result of the new query to augment or replace the content of the application data set. When a new query is adding to the content of the data set, any duplicate IIEs from the multiple queries shall be resolved. Any change to the data set shall be reflected in all the application views. | - |
| 4.6.5.2 | BM JIPOE App | [FUA-362] | It shall be possible search for an actor and expand all the information that is linked to the actor and add the actor and its linked information added to a BM JIPOE data set. | - |
| 4.6.5.3 | BM JIPOE App | [FUA-363] | It shall be possible to search for all HFEs associated with a particular BMOA (or with multiple BMOAs) and add to a BM JIPOE data set. | - |
| 4.6.5.4 | BM JIPOE App | [FUA-364] | It shall be possible to apply a geographical coverage area filter to filter out information from the BM JIPOE data set, and dynamically update the data set views. | - |
| 4.6.5.5 | BM JIPOE App | [FUA-365] | It shall be possible to filter the BM JIPOE data set based on the linkage to a set of user-specified nodes and update the data set views. E.g. the user can select some BMOAs and reduce the data set to IIEs that is linked to the selected BMOAs, the user can select some assets and reduce the data set to IIEs linked to those assets, the user can select Areas of Intelligence Interest (AII) and Areas of Intelligence Responsibility (AIR) and reduce the data set to IIEs linked to those AIIs and AIRs, etc. | - |
| 4.6.5.6 | BM JIPOE App | [FUA-366] | It shall be possible to filter the BM JIPOE data set based on IIE types, IIE attributes and associations to other IIEs (i.e. using graph-oriented queries) and remove/ hide "unwanted" IIEs and dynamically update the data set views. | - |
| 4.6.5.7 | BM JIPOE App | [FUA-367] | It shall be possible to filter the BM JIPOE data set based on a time window (e.g. using a time slider UI widget) and remove/ hide IIEs falling outside the of the active time window and dynamically update the data set views. It shall be possible to dynamically shrink, expand, and shift the time window in time (backwards and forwards in time). | - |
| 4.6.5.8 | BM JIPOE App | [FUA-368] | The BM JIPOE Application shall be able to define data sets for multi-criteria decision analysis (MCDA) comparisons. | - |
| *4.6.6* | *BM JIPOE App* | *4.3.6.6* | *Application-supported assessments* | - |

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| 4.6.6.1 | BM JIPOE App | [FUA-867] | The BM JIPOE Application shall be able to calculate associations between an OPFOR BM HFE and BMOAs by comparing the smallest reported Estimated Launch Point error ellipse, the reported or correlated BM Type and the correlated Trajectory Type with BMOAs, expected BM Types and expected Trajectory Types. | - |
| 4.6.6.2 | BM JIPOE App | [FUA-868] | The BM JIPOE Application shall calculate associations between an OPFOR BM HFEs and Assets based on the smallest reported Predicted Impact Point error ellipse and Asset areas or locations. | - |
| 4.6.6.3 | BM JIPOE App | [FUA-369] | The BM JIPOE Application shall be able to calculate a total score for BM OPFOR targeting likelihood for each military and non-military asset type, and store the score values for the assets. | - |
| *4.6.7* | *BM JIPOE App* | *4.3.6.7* | *IIE View/ Entry Panel* | - |
| 4.6.7.1 | BM JIPOE App | [FUA-869] | The BM JIPOE Application shall include an IIE View/ Entry Panel as defined in chapter 2 to display and edit IIEs managed by the application. | - |
| *4.6.8* | *BM JIPOE App* | *4.3.6.8* | *Table Views* | - |
| 4.6.8.1 | BM JIPOE App | [FUA-370] | The BM JIPOE Application shall use the Table View Component with all its features as defined in chapter 2. | - |
| 4.6.8.2 | BM JIPOE App | [FUA-371] | It shall be possible view and edit all common metadata attributes for IIEs in the ADS in a Table View. | - |
| 4.6.8.3 | BM JIPOE App | [FUA-372] | It shall be possible load Asset Lists into a Table View. | - |
| 4.6.8.4 | BM JIPOE App | [FUA-872] | It shall be possible to load AARs into a Table View. | - |
| 4.6.8.5 | BM JIPOE App | [FUA-873] | It shall be possible to load a BM OPFOR COA Comparison Record into a Table View. | - |
| 4.6.8.6 | BM JIPOE App | [FUA-373] | It shall be possible to compare, the observed operational tempo for a BMOA with the expected operational tempo in a Table View. | - |
| 4.6.8.7 | BM JIPOE App | [FUA-374] | It shall be possible to present threats to assets in a Table View where each row represent an asset, and each column identify a threat (i.e. a red BSO) to that asset. | - |
| *4.6.9* | *BM JIPOE App* | *4.3.6.9* | *Relationship Views* | - |
| 4.6.9.1 | BM JIPOE App | [FUA-375] | The BM JIPOE Application shall be able to render the entire BM JIPOE Data set in a Relationship View where this view is implemented using the Relationship View Component with all its features as defined in chapter 2. | - |
| 4.6.9.2 | BM JIPOE App | [FUA-376] | Items selected in Relationship View shall be displayed/ previewed in the BM JIPOE Application. | - |
| *4.6.10* | *BM JIPOE App* | *4.3.6.10* | *GeoView* | - |
| 4.6.10.1 | BM JIPOE App | [FUA-377] | The BM JIPOE Application shall integrate with and control the GeoView component as described in chapter 2. | - |
| 4.6.10.2 | BM JIPOE App | [FUA-378] | The BM JIPOE Application shall be able to visualize the entire ADS including all parts of the COAs (e.g. AARs, BMOAs, etc.) in GeoView. | - |
| 4.6.10.3 | BM JIPOE App | [FUA-379] | The BM JIPOE Application shall be able to identify HFEs that are not associated with any BMOAs and highlight these in GeoView. | - |
| 4.6.10.4 | BM JIPOE App | [FUA-380] | The BM JIPOE Application shall be able to identify HFEs that have a different BM type to what is expected for the associated BMOA and highlight these in GeoView. | - |
| 4.6.10.5 | BM JIPOE App | [FUA-880] | The BM JIPOE Application shall highlight OPFOR BM HFEs which have a different Trajectory Type to what is expected for the BM Type when they are displayed. | - |
| 4.6.10.6 | BM JIPOE App | [FUA-881] | The BM JIPOE Application shall display all OPFOR BM HFEs in the ADS in the GeoView highlighting events which do not associate with at least one asset type in the expected OPFOR BM Targeting Strategy. | - |
| 4.6.10.7 | BM JIPOE App | [FUA-381] | The BM JIPOE Application shall be able to draw multiple parameterized range rings for BSOs (launchers) in the BM JIPOE data set (pulling the parameters for the rings from BSO TECHINT). | - |
| 4.6.10.8 | BM JIPOE App | [FUA-382] | The BM JIPOE Application shall be able to load asset lists from files and display the assets in GeoView. | - |
| 4.6.10.9 | BM JIPOE App | [FUA-383] | It shall be possible to select one or many of the geo-referenced entities in the BM JIPOE data set in the GeoView and calculate the intersection with all defined range rings in the INTEL-FS data set using the I2BE API, and subsequently render such range rings in the GeoView (i.e. to visualize threats) and present the intersection calculations in a Table View (see [FUA-374]). | - |
| 4.6.10.10 | BM JIPOE App | [FUA-883] | It shall be possible to create an overlay from the launcher positions and identified threatened assets from the intersect calculation above (see [FUA-383]), and it shall be possible to update this overlay with the result of re-calculation of the threat (e.g. to reflect the consequences of movement of launchers and/ or assets). | - |
| 4.6.10.11 | BM JIPOE App | [FUA-884] | It shall be possible to visualize a BM OPFOR COA Comparison Record in GeoView. This visualization shall include the BMOAs, assets, and HFEs associated with the BM OPFOR COA Comparison Record. | - |

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| *4.6.11* | *BM JIPOE App* | *4.3.6.11* | *Terrain and mobility analysis visualization* | - |
| 4.6.11.1 | BM JIPOE App | [FUA-384] | The BM JIPOE Application shall through the I2BE Terrain Analysis API obtain one or several overlays that depicts where BM Units can reach and operate from. The I2BE Terrain Analysis API will be implemented as an Open Geospatial Consortium (OGC) Web Processing Service (WPS) and is expected to require the input parameters as defined in the table below. The BM JIPOE Application shall be able to provide all the parameters when calling the backend Terrain Analysis service. | - |
| 4.6.11.2 | BM JIPOE App | [FUA-385] | The BM JIPOE Application shall through the I2BE Mobility Analysis API that obtain one or several overlays that depicts how far the BM Units can reach for a set of time intervals The I2BE Mobility Analysis API will be implemented as an OGC Web Processing Service (WPS) and is expected to require the input parameters as defined in the table below. The BM JIPOE Application shall be able to provide all the parameters when calling the backend Mobility Analysis service. | - |
| *4.6.12* | *BM JIPOE App* | *4.3.6.12* | *Chart Views (statistical analysis)* | - |
| 4.6.12.1 | BM JIPOE App | [FUA-386] | The BM JIPOE Application Chart View shall use the Chart View Component with all its features as defined in chapter 2. | - |
| 4.6.12.2 | BM JIPOE App | [FUA-387] | The BM JIPOE Application Chart View shall display summary graph of filtered HFE in the application data set. | - |
| 4.6.12.3 | BM JIPOE App | [FUA-388] | The BM JIPOE Application shall be able to display HFEs in the application data set as bar chart against time. | - |
| 4.6.12.4 | BM JIPOE App | [FUA-389] | The BM JIPOE Application shall calculate the average number of BM launches per 24 hours for each BMOA and present in an appropriate Chart View (e.g. using bar charts). | - |
| 4.6.12.5 | BM JIPOE App | [FUA-889] | The BM JIPOE Application shall calculate the average salvo size for each BMOA in the ADS using the specified Salvo Time-out. | - |
| 4.6.12.6 | BM JIPOE App | [FUA-890] | The BM JIPOE Application shall calculate the average salvo duration for each BMOA in the ADS using the specified Salvo Time-out. | - |
| 4.6.12.7 | BM JIPOE App | [FUA-891] | The BM JIPOE Application shall from the Chart View launch/ salvo calculations store the calculated BM Operational Tempo for each BMOA in the ADS. | - |
| *4.6.13* | *BM JIPOE App* | *4.3.6.13* | *Multi-Criteria Decision Analysis (MCDA) View* | - |
| 4.6.13.1 | BM JIPOE App | [FUA-892] | The BM JIPOE Application shall implement a MCDA View where the MCDA criteria sets can be defined, updated, and saved. | - |
| 4.6.13.2 | BM JIPOE App | [FUA-893] | The MCDA View shall have support for showing both the MCDA criteria and all OPFOR BM COAs to be analysed in a panel, and shall enable the user to make changes to the MCDA criteria and directly see the results on the ranking of the OPFOR BM COAs in the different ratings (most dangerous, most likely). | - |
| 4.6.13.3 | BM JIPOE App | [FUA-894] | It shall be possible for the user to override the automatically calculated rankings from the MCDA criteria (most dangerous, most likely) and manually set rankings of the OPFORM BM COAs. | - |
| 4.6.13.4 | BM JIPOE App | [FUA-895] | It shall be possible to store the final MCDA rankings (automatically generated and/ or manually adjusted) of OPFOR BM COAs through the I2BE API. | - |
| *4.6.14* | *BM JIPOE App* | *4.3.6.14* | *BM OPFOR COA (Observed vs Expected) Comparison View* | - |
| 4.6.14.1 | BM JIPOE App | [FUA-896] | The BM JIPOE Application shall implement a view tailored for comparing observed versus expected OPFOR BM COA where information from BSO status reports are compared with the expected/ predicted OPFOR BM COA activities, and where the comparison results can be organized, annotated, and stored (and retrieved) through the I2BE API (i.e. BM OPFOR Comparison Records can be created, updated, and deleted). Annotations can be made both at the individual comparisons, and as a summary annotation on the Comparison Record (i.e. as an overall compliance assessment/ summary of all the comparisons in the record). | - |
| 4.6.14.2 | BM JIPOE App | [FUA-897] | The OPFOR BM COA Comparison View shall for each BMOAs within the OPFOR BM COA calculate the observed operational tempo and visualize a comparison with the expected operational tempo for the BMOA, and it shall be possible to annotate and store the comparison result (differences) as part of a comparison record (see [InformationModel]) linked to the OPFOR BM COA. | - |
| 4.6.14.3 | BM JIPOE App | [FUA-898] | The OPFOR BM COA Comparison View shall for each BMOAs within the OPFOR BM COA retrieve observed BM types and visualize a comparison with the expected BM types for the BMOA, and it shall be possible to annotate and store the comparison result (differences) as part of a comparison record linked to the OPFOR BM COA. | - |

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| 4.6.14.4 | BM JIPOE App | [FUA-899] | The OPFOR BM COA Comparison View shall for each BMOAs within the OPFOR BM COA retrieve observed BM trajectory types and visualize a comparison with the expected BM trajectory types for the BMOA, and it shall be possible to annotate and store the comparison result (differences) as part of a comparison record linked to the OPFOR BM COA. | - |
| 4.6.14.5 | BM JIPOE App | [FUA-900] | The OPFOR BM COA Comparison View shall for each OPFOR BM Force within the OPFOR BM COA retrieve new intelligence (new BSO status reports) on the OPFOR BM Force available warhead types and visualize a comparison with the expected warhead types for the OPFOR BM Force, and it shall be possible to annotate and store the comparison result (differences) as part of a comparison record linked to the OPFOR BM COA. | - |
| 4.6.14.6 | BM JIPOE App | [FUA-901] | The OPFOR BM COA Comparison View shall for each OPFOR BM Force within the OPFOR BM COA retrieve observed warhead types employed by an OPFOR BM Force and visualize a comparison with the expected warhead types for the OPFOR BM Force, and it shall be possible to annotate and store the comparison result (differences) as part of a comparison record linked to the OPFOR BM COA. | - |
| 4.6.14.7 | BM JIPOE App | [FUA-902] | It shall be possible from within the OPFOR BM COA Comparison View to associate a set of OPFOR BM HFEs (within the ADS) with an OPFOR BM COA Comparison Record. | - |
| 4.6.14.8 | BM JIPOE App | [FUA-903] | The OPFOR BM COA Comparison View shall for each OPFOR BM Targeting Strategy associated with the OPFOR BM COA compare the expected BM targeting strategy against observed activity, and it shall be possible to annotate and store the comparison result (differences) as part of a comparison record linked to the OPFOR BM COA. | - |
| 4.6.14.9 | BM JIPOE App | [FUA-904] | The OPFOR BM Comparison View shall be able to display a time-sorted list of OPFOR BM COA Comparison Records based on the period of validity for each expected OPFOR BM COA. | - |
| *4.6.15* | *BM JIPOE App* | *4.3.6.15* | *Document Views* | - |
| 4.6.15.1 | BM JIPOE App | [FUA-390] | It shall be possible to view the operating environment evaluation in a customizable and human readable document format and to save/ export this document as a PDF file. | - |
| 4.6.15.2 | BM JIPOE App | [FUA-391] | It shall be possible to view the actor analysis in a customizable and human readable document format and to save/ export this document as a PDF file. | - |
| 4.6.15.3 | BM JIPOE App | [FUA-392] | It shall be possible to view the BM OPFOR COA in a customizable and human readable document format and to save/ export this document as a PDF file. | - |
| *4.6.16* | *BM JIPOE App* | *4.3.6.16* | *Animation* | - |
| 4.6.16.1 | BM JIPOE App | [FUA-393] | It shall be possible to dynamically animate the visualization of the ADS in GeoView by dragging a time "handle" in the time slider tool. | - |
| **4.7** | **Search App** | **4.3.7** | **Search Application (new backend)** | - |
| *4.7.1* | *Search App* | *4.3.7.1* | *UI functionalities supporting user stories* | - |
| 4.7.1.1 | Search App | [FUA-394] | The Search Application shall implement functionalities to fulfil the acceptance criteria of [US 50]: As an Authorized User I want to be able to look for information using faceted search techniques so that I can narrow down search results by applying multiple filters based on faceted classification of the items. | - |
| *4.7.2* | *Search App* | *4.3.7.2* | *UI integrated with new backend (no regression)* | - |
| 4.7.2.1 | Search App | [FUA-395] | The I2UA with Search Application shall be fully integrated with new I2BE backend. There shall be no regression from previously implemented functionalities, and the application user interface shall be adapted to fully support the [INTEL-FS2-InformationModel] as exposed through the I2BE API. This includes verifying that the combined search can search also against the new IIE types introduced in this phase, and that the faceted search also has support for previewing and exporting of search results. | - |
| *4.7.3* | *Search App* | *4.3.7.3* | *Search results functionalities* | - |
| 4.7.3.1 | Search App | [FUA-396] | The Search Application shall by default filter out BSRs that are linked to COAs (i.e. these COA-linked BSRs shall normally not be included in the result set). The user shall be able to override this default filtering so that COA-linked BSRs are also reported in the result set, but in this case these BSRs shall be visually distinguishable from the normal BSRs (to alert the user that these are not real observations). | - |
| 4.7.3.2 | Search App | [FUA-397] | The Search Application shall be able to use the I2BE provided search clustering functionality (exposed through the I2BE search API) to present search results grouped into categories. | - |
| **4.8** | **Analysis App** | **4.3.8** | **Analysis Application (new backend)** | - |
| *4.8.1* | *Analysis App* | *4.3.8.1* | *UI functionalities supporting user stories* | - |
| 4.8.1.1 | Analysis App | [FUA-398] | The Analysis Application shall implement functionalities to fulfil the acceptance criteria of [US 49]: As an Authorized User I want to have tool support to find connection path between entities so that I can investigate if a connection between the entities exist. | - |
| *4.8.2* | *Analysis App* | *4.3.8.2* | *UI integrated with new backend (no regression)* | - |

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| 4.8.2.1 | Analysis App | [FUA-399] | The I2UA with Analysis Application shall be fully integrated with the new I2BE backend. There shall be no regression from previously implemented functionalities, and the application user interface shall be adapted to fully support the [INTEL-FS2-InformationModel] as exposed through the I2BE API. | - |
| *4.8.3* | *Analysis App* | *4.3.8.3* | *Advanced graph query builder* | - |
| 4.8.3.1 | Analysis App | [FUA-400] | The Analysis Application shall be augmented with a visual graph query builder that takes full advantage of the graph query support in the I2BE API and the relational nature of the [INTEL-FS2-InformationModel]. | - |
| 4.8.3.2 | Analysis App | [FUA-401] | The Analysis Application shall transform geographical area constraints defined using INTEL-FS2 geographical areas (e.g. NAI, BMOA, etc.) into a geospatial representation supported by the query language exposed through the I2BE API. | - |
| *4.8.4* | *Analysis App* | *4.3.8.4* | *Centralities analysis* | - |
| 4.8.4.1 | Analysis App | [FUA-402] | Within the Analysis Data Set (ADS) it shall be possible to select IIE types and relationship types suitable for centrality calculations, select centrality types, and calculate the centralities for the selected IIEs and relationships. Note: Degree, Closeness, Betweenness, and Eigenvector Centrality calculations will be supported by the I2BE API. | - |
| 4.8.4.2 | Analysis App | [FUA-403] | It shall, when using geometric shapes nodes in the Relationship View and in the GeoView, be possible, from a centralities palette, to specify a centrality type and sizing parameters (minimum and maximum size) to be used for rendering the size of IIEs (nodes) such the size of the rendered shapes correlates with their centrality values. | - |
| 4.8.4.3 | Analysis App | [FUA-404] | It shall be possible to view the results of the centrality calculations in a table with the different centrality types reported in different columns and where the table rows represents the IIEs. The Centrality Table shall be sortable (ascending and descending) for each one of the centrality columns. | - |
| 4.8.4.4 | Analysis App | [FUA-405] | It shall be possible to select an IIE from the Centrality Table and have that IIE highlighted in the ADS views. | - |
| **4.9** | **ISR Organization Mgmt App** | **4.3.9** | **ISR Organization Management Application (new backend)** | - |
| *4.9.1* | *ISR Organization Mgmt App* | *4.3.9.1* | *UI functionalities supporting user stories* | - |
| 4.9.1.1 | ISR Organization Mgmt App | [FUA-406] | The ISR Organization Management Application shall implement functionalities to fulfil the acceptance criteria of [US-63]: As an Authorized User I want to have the operation, ISR ORBAT, ISR units, and ISR systems approved and published so that this information becomes known/ available at all ONs. | - |
| *4.9.2* | *ISR Organization Mgmt App* | *4.3.9.2* | *UI integrated with new backend (no regression)* | - |
| 4.9.2.1 | ISR Organization Mgmt App | [FUA-407] | The ISR Organization Management Application shall be fully integrated with the new I2BE backend. There shall be no regression from previously implemented functionalities, and the application user interface shall be adapted to fully support the [INTEL-FS2-InformationModel] as exposed through the I2BE API. This means that the usage of the STANAG 4559 services as implemented in Phase 1 shall be stopped. Instead the ISR Organization Management Application shall consume the new I2BE OData REST API for accessing ISR ORBATs, Units, ISR Systems, etc. | - |
| **4.10** | **IRM App** | **4.3.10** | **IRM Application (new backend)** | - |
| *4.10.1* | *IRM App* | *4.3.10.1* | *UI integrated with new backend (no regression)* | - |
| 4.10.1 | IRM App | [FUA-409] | The I2UA with IRM Application shall be fully integrated with the new I2BE backend. There shall be no regression from previously implemented functionalities, and the application user interface shall be adapted to fully support the [INTEL-FS2-InformationModel] as exposed through the I2BE API. | - |
| **4.11** | **CRM App** | **4.3.11** | **CRM Application (new backend)** | - |
| *4.11.1* | *CRM App* | *4.3.11.1* | *UI functionalities supporting user stories* | - |
| 4.11.1.1 | CRM App | [FUA-410] | The CRM Application shall implement functionalities fulfil [US 76]: As an Authorized User I want to update the status of a CR to control the workflow of the CR. | - |
| 4.11.1.2 | CRM App | [FUA-411] | The CRM Application shall implement functionalities fulfil [US 77]: As an Authorized User I want to track the status of CRs as they go through the tasking, collection, processing, exploitation, and dissemination (TCPED) process so I can understand whether they will be supported or not. | - |
| 4.11.1.3 | CRM App | [FUA-412] | The CRM Application shall implement functionalities fulfil [US 78]: As an Authorized User I want to process CRs into actions so that they ultimately result in collection activities. | - |
| 4.11.1.4 | CRM App | [FUA-413] | The CRM Application shall implement functionalities fulfil [US 79]: As an Authorized User I want to be able to export a set of CRs, a CRL and a CTL so this information can be used outside of INTEL-FS2. | - |

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| 4.11.1.5 | CRM App | [FUA-417] | The CRM Application shall implement functionalities to fulfil the acceptance criteria of [US 89]: As an Authorized User I want to be able to access a help function that can provide me with information on how to use INTEL-FS2. | - |
| *4.11.2* | *CRM App* | *4.3.11.2* | *UI integrated with new backend (no regression)* | - |
| 4.11.2.1 | CRM App | [FUA-418] | The I2UA with the CRM Application shall be fully integrated with the new I2BE backend. There shall be no regression from previously implemented functionalities, and the application user interface shall be adapted to fully support the [INTEL-FS2-InformationModel] as exposed through the I2BE API. | - |
| *4.11.3* | *CRM App* | *4.3.11.3* | *Integrated search and basic actions on search results* | - |
| 4.11.3.1 | CRM App | [FUA-420] | The CRM Application shall include an integrated search function allowing the user to identify Intelligence Requirements (IR), BSOs that can subsequently be used for creating CRs. | - |
| 4.11.3.2 | CRM App | [FUA-421] | The CRM Application's integrated search function shall support searching for and identifying Operational Activities, CRLs, CTLs, NAIs, Products and BSOs etc. so that the CRs can be linked to IIEs of such types. | - |
| 4.11.3.3 | CRM App | [FUA-422] | The CRM Application's integrated search function shall support searching for CRs (including draft CRs) to be viewed in Table View, GeoView, and Gantt View. Searching for specific CRs based on CR serial number shall be supported. | - |
| 4.11.3.4 | CRM App | [FUA-423] | From the search results it shall be possible (for an authorized user) to perform the actions as defined in the table below. | - |
| *4.11.4* | *CRM App* | *4.3.11.4* | *Application Data Set (ADS)* | - |
| 4.11.4. | CRM App | [FUA-424] | It shall be possible to filter the set of CRs on specific CRLs and CTLs. | - |
| 4.11.4.2 | CRM App | [FUA-425] | It shall be possible to filter the set of CRs on operation or named collection, IRs, Originator, actionees (For Action), CR Status, Priority, Basic Encyclopaedia (BE) Number, Target ID, Category code, degree of effectiveness, etc. and hide filtered-out CRs, and dynamically update all the CR views. | - |
| 4.11.4.3 | CRM App | [FUA-426] | It shall be possible to apply a geographical coverage area filter to filter out information from the set of CRs, and dynamically update all the CR views. | - |
| 4.11.4.4 | CRM App | [FUA-427] | It shall be possible to filter the set of CRs based on a time window (e.g. using a time slider UI widget) and remove/ hide CRs falling outside the of the active time window (using Last Report Date and LTIOV attributes) and dynamically update all the CR views. It shall be possible to dynamically shrink, expand, and shift the time window in time (backwards and forwards in time). | - |
| 4.11.4.5 | CRM App | [FUA-428] | It shall be possible to save search + filter settings as named user-specific filters for the CR Management Application to be able to recreate the set of CRs. | - |
| *4.11.5* | *CRM App* | *4.3.11.5* | *Table Views* | - |
| 4.11.5. | CRM App | [FUA-429] | The CRM Application shall use the Table View Component with all its features as defined in chapter 2. | - |
| 4.11.5.2 | CRM App | [FUA-430] | It shall be possible to view a set of CRs in a Table View where each row represents a CR, and the CR attribute values are shown across multiple columns in the table. The operation or named collection, the Unit (in case a CR is assigned to more than one Unit then the Units shall be delimited within the same column), the IR, the CR priority, the CR Status, etc. shall all be included as column attributes. | - |
| 4.11.5.3 | CRM App | [FUA-431] | It shall be possible to select between a set of standard and predefined layouts of the Table View (the purpose of this is to allow the user to quickly organize the Table View for the task at hand; e.g. there might be a particular layout for the export to CSV files, etc.) | - |
| 4.11.5.4 | CRM App | [FUA-432] | It shall be possible to edit CRs in the Table View. The editing functionality shall include the possibility of dragging one or many CRs from one group to another group (e.g. to reassign CRs from one Unit to another Unit). | - |
| 4.11.5.5 | CRM App | [FUA-433] | It shall be possible to export the set of CRs as a "bag of CRs", as a CRL, and as a CTL, in an XML format. | - |
| *4.11.6* | *CRM App* | *4.3.11.6* | *Relationship View* | - |
| 4.11.6.1 | CRM App | [FUA-434] | The CRM Application shall use the Relationship View Component with all its features as defined in chapter 2. | - |
| 4.11.6.2 | CRM App | [FUA-435] | The CRM Application shall be able to display CRs, PIRs, SIRs, EEIs, collection and exploitation tasks, and products in the Relationship View. The user can expand the information in the Relationship View by selecting individual IIEs and bring into the view all IIEs (of any type) linked to the selected IIEs. | - |
| 4.11.6. | CRM App | [FUA-436] | Items selected in Relationship View shall be displayed/ previewed in the CR Management Application. | - |
| *4.11.7* | *CRM App* | *4.3.11.7* | *Gantt Views* | - |
| 4.11.7.1 | CRM App | [FUA-437] | The CRM Application Gant View shall be implemented using, or including, the Gant View Component with all its features as defined in chapter 2. | - |

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| 4.11.7.2 | CRM App | [FUA-438] | It shall be possible to visualize the selected set of CRs grouped by IRs (when the CR is linked to an IR) and where the IR hierarchy (PIR/SIR/EEI) is also shown/depicted. CRs with no IR association shall be grouped under a "no IR" group. | - |
| 4.11.7. | CRM App | [FUA-439] | It shall be possible to visualize the selected set of CRs grouped by CRLs and CTLs. | - |
| 4.11.7.4 | CRM App | [FUA-440] | It shall be possible when visualizing the selected CRs to display information on the CRs' associated BSOs and Targets, and assigned Units (in particular status updates from multiple Units on the same CR in case a CR is allocated to multiple Units). | - |
| 4.11.7.5 | CRM App | [FUA-441] | It shall be possible within the timeline part of the Gantt View to display CR time-based attributes (Latest Report Time and Latest Time of Information Value) as milestones/ events. | - |
| 4.11.7.6 | CRM App | [FUA-442] | It shall be possible within the timeline part of the Gantt View to display status value changes as annotated events/ milestones. | - |
| *4.11.8* | *CRM App* | *4.3.11.8* | *GeoView* | - |
| 4.11.8.1 | CRM App | [FUA-443] | The CRM Application shall integrate with and control the GeoView component as described in chapter 2. | - |
| 4.11.8.2 | CRM App | [FUA-444] | The CRM Application shall be able to show CRs and associated geographical areas in GeoView where status values, and effects/ tasks verb, of the CRs can be used to select how the CRs are rendered (options to include symbols vs shapes and colour coding). | - |
| 4.11.8.3 | CRM App | [FUA-445] | The CRM Application shall, for CRs in the CR set with multiple locations in it, command GeoView to depict a link between the CR with all its locations. | - |
| 4.11.8. | CRM App | [FUA-446] | The CRM Application shall show BSOs and Targets linked to CRs in the selected CR set in GeoView. | - |
| 4.11.8. | CRM App | [FUA-447] | Items selected in GeoView shall be displayed/ previewed in the CR Management Application. | - |
| *4.11.9* | *CRM App* | *4.3.11.9* | *Chart Views (statistical analysis)* | - |
| 4.11.9.1 | CRM App | [FUA-448] | The CRM Application Chart View shall use the Chart View Component with all its features as defined in chapter 2. | - |
| 4.11.9.2 | CRM App | [FUA-449] | From the set of CRs identified through search and filtering operations it shall be possible to plot Number of CRs (in the set) by Status values, by effects/ tasks verb, by degree of effectiveness, degree of effectiveness vs ad hoc and dynamic tasking, CR status vs CR Priority, by Organization etc. as bar charts and pie charts. | - |
| 4.11.9.3 | CRM App | [FUA-450] | It shall be possible to turn developed charts into named templates to be reused again and again to reproduce statistical diagrams with the same layout for other sets of CRs. | - |
| **4.12** | **COM App** | **4.3.12** | **COM Application** | - |
| *4.12.1* | *COM App* | *4.3.12.1* | *UI functionalities supporting user stories* | - |
| 4.12.1.1 | COM App | [FUA-451] | The COM Application shall implement functionalities to fulfil the acceptance criteria of [US 83]: As an Authorized User I want to update the status of tasks to control the workflow of the tasks. | - |
| 4.12.1.2 | COM App | [FUA-452] | The COM Application shall implement functionalities to fulfil the acceptance criteria of [US 84]: As an Authorized User I want to track the status of tasks so I can understand whether they will be supported or not. | - |
| 4.12.1.3 | COM App | [FUA-453] | The COM Application shall implement functionalities to fulfil the acceptance criteria of [US 85]: As an Authorized User I want to create and manage several CXPs to support a CM battle rhythm so that individual collection and exploitation tasks can be viewed in accordance with the defined CXPs. | - |
| 4.12.1.4 | COM App | [FUA-454] | The COM Application shall implement functionalities to fulfil the acceptance criteria of [US 86]: As an Authorized User I want to be able to export a set of tasks and CXPs so this information can be used outside of INTEL-FS2. | - |
| 4.12.1.5 | COM App | [FUA-455] | The COM Application shall implement functionalities to fulfil the acceptance criteria of [US 87]: As an Authorized User I want to manage finalized CXPs to provide clear tasking of ISR Systems. | - |
| 4.12.1.6 | COM App | [FUA-457] | The COM Application shall implement functionalities to fulfil the acceptance criteria of [US 89]: As an Authorized User I want to be able to access a help function that can provide me with information on how to use INTEL-FS2. | - |
| *4.12.2* | *COM App* | *4.3.12.2* | *UI integrated with new backend (no regression)* | - |
| 4.12.2.1 | COM App | [FUA-458] | The I2UA with the COM Application shall be fully integrated with the new I2BE backend. There shall be no regression from previously implemented functionalities, and the application user interface shall be adapted to fully support the [INTEL-FS2-InformationModel] as exposed through the I2BE API. | - |
| *4.12.3* | *COM App* | *4.3.12.3* | *Integrated search and basic actions on search results* | - |
| 4.12.3.1 | COM App | [FUA-459] | The COM Application shall include an integrated search function allowing the user to identify Collection Requirements (CR) that can subsequently be used for creating collection and exploitation tasks. | - |

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| 4.12.3.2 | COM App | [FUA-460] | The Collection & Exploitation Planning Application's integrated search function shall support searching for and identifying Operational Activities, CTLs, CXPs, NAIs, Products and BSOs etc. so that the tasks can be linked to IIEs of such types. | - |
| 4.12.3.3 | COM App | [FUA-461] | The Collection & Exploitation Planning Application's integrated search function shall support searching for tasks (including draft tasks) and CRs to be viewed in Table View, GeoView, and Gantt View. Searching for specific tasks based on task serial number shall be supported. | - |
| 4.12.3.4 | COM App | [FUA-462] | From the search results it shall be possible (for an authorized user) to perform the actions as defined in the table below. | - |
| *4.12.4* | *COM App* | *4.3.12.4* | *Application Data Set (ADS)* | - |
| 4.12.4. | COM App | [FUA-463] | It shall be possible to filter the set of tasks and CRs on specific CTLs and CXPs (by name and creator). | - |
| 4.12.4.2 | COM App | [FUA-464] | It shall be possible to filter the set of tasks and CRs on operation or named collection, IRs (in particular EEIs), tasking Unit, ISR System, ISR System operational/ capacity/ processing status, task creation time, task status values, products required, etc. and hide filtered-out tasks, and dynamically update all Views. | - |
| 4.12.4.3 | COM App | [FUA-465] | It shall be possible to apply a geographical coverage area filter to filter out information from the set of tasks and CRs, and dynamically update all Views. | - |
| 4.12.4.4 | COM App | [FUA-466] | It shall be possible to filter the set of tasks based on a time window (e.g. using a time slider UI widget) and remove/ hide tasks falling outside the of the active time window (using task interval and collection time intervals) and dynamically update all the task views. It shall be possible to dynamically shrink, expand, and shift the time window in time (backwards and forwards in time). | - |
| 4.12.4.5 | COM App | [FUA-467] | It shall be possible to save search + filter settings as named user-specific filters for the Collection & Exploitation Planning Application to be able to recreate the set of tasks. | - |
| *4.12.5* | *COM App* | *4.3.12.5* | *Table Views* | - |
| 4.12.5. | COM App | [FUA-468] | The COM Application shall use the Table View Component with all its features as defined in chapter 2. | - |
| 4.12.5.2 | COM App | [FUA-469] | It shall be possible to work with CRs in a Table view, to select one or many CRs in the Table View and generate tasks from them (e.g. by dragging and dropping into the Task Table View). The new tasks shall be added to the task set and those shall how up in another Table View for tasks, in GeoView, and in the Gantt View. | - |
| 4.12.5.3 | COM App | [FUA-470] | It shall be possible to view a set of tasks in a Table View where each row represents a task, and the task attribute values are shown across multiple columns in the table. The operation or named collection, the ISR System, the CR, the CXP that the task is linked to, the task timing data, etc. shall all be included as column attributes. | - |
| 4.12.5. | COM App | [FUA-471] | It shall be possible to edit tasks directly in a Table View. | - |
| 4.12.5.5 | COM App | [FUA-472] | It shall be possible edit tasks in the table by dragging one or many tasks from one group to another group (this functionality could be used to reassign tasks from one ISR System to another ISR System). | - |
| 4.12.5.6 | COM App | [FUA-473] | It shall be possible to select between a set of standard and predefined layouts of the Table View (the purpose of this is to allow the user to quickly organize the Table View for the task at hand; e.g. there might be a particular layout for the export to CSV files, etc.) | - |
| 4.12.5.7 | COM App | [FUA-474] | It shall be possible to export the set of tasks in a Table View as a "bag of tasks", and/ or as a CXP, in an XML format. | - |
| *4.12.6* | *COM App* | *4.3.12.6* | *Gantt Views* | - |
| 4.12.6.1 | COM App | [FUA-475] | The COM Application Gant View shall be implemented using, or including, the Gant View Component with all its features as defined in chapter 2. | - |
| 4.12.6.2 | COM App | [FUA-476] | It shall be possible to visualize the selected set of tasks grouped by CXPs with ISR Systems as second tier sub-group. | - |
| 4.12.6.3 | COM App | [FUA-477] | It shall be possible within the timeline part of the Gantt View to display task time-based attributes (Task Interval and Collection Time Interval). | - |
| 4.12.6.4 | COM App | [FUA-478] | It shall be possible within the timeline part of the Gantt View to display status value changes as annotated events/ milestones. | - |
| 4.12.6.5 | COM App | [FUA-479] | It shall be possible within the timeline part of the Gantt View to visualize the individual ISR Systems availability, capability, capacity, and operational status (e.g. indicate timeframes where the ISR System is fully tasked and time frames where it has spare capacity). | - |
| 4.12.6. | COM App | [FUA-480] | It shall be possible to edit tasks directly in the Gant View. | - |

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| 4.12.6.7 | COM App | [FUA-481] | Using the visual indication of when ISR Systems are overloaded vs having spare capacity (see [FUA-479]) it shall be possible to reallocate tasks by dragging and dropping tasks from one ISR System to another ISR System. The visual indication of availability/ capacity status for the ISR Systems shall be dynamically updated as tasks are reassigned. | - |
| *4.12.7* | *COM App* | *4.3.12.7* | *GeoView* | - |
| 4.12.7.1 | COM App | [FUA-482] | The COM Application shall integrate with and control the GeoView component as described in chapter 2. | - |
| 4.12.7.2 | COM App | [FUA-483] | The COM Application shall be able to show geographical areas, CRs, and collection and exploitation tasks in GeoView. | - |
| 4.12.7.3 | COM App | [FUA-484] | The COM Application shall be able to use different shapes and colours to visually distinguish tasks with different status values GeoView. | - |
| 4.12.7.4 | COM App | [FUA-485] | The COM Application shall also be able to use different shapes and colours to visually distinguish tasks based on the required product types (SAR, EO, IR, etc.) GeoView. | - |
| 4.12.7.5 | COM App | [FUA-486] | The COM Application shall be able to obtain graphical representation of the Air Tasking Order (ATO) from the NCOP system (see [NCOP-IDC]) and display the ATO in GeoView. | - |
| 4.12.7.6 | COM App | [FUA-487] | It shall be possible to select one or many CRs in the GeoView and generate tasks from them. The new tasks shall be added to the task set and show up in the GeoView, Task Table View, and Gant View. | - |
| *4.12.8* | *COM App* | *4.3.12.8* | *Chart Views (statistical analysis)* | - |
| 4.12.8.1 | COM App | [FUA-489] | The COM Application Chart View shall use the Chart View Component with all its features as defined in chapter 2. | - |
| 4.12.8.2 | COM App | [FUA-490] | From the set of tasks identified through search and filtering operations it shall be possible to plot Number of tasks (in the set) by statuses, by Unit, by ISR System, etc. as bar charts and pie charts. | - |
| 4.12.8.3 | COM App | [FUA-491] | It shall be possible to turn developed charts into named templates to be reused again and again to reproduce statistical diagrams with the same layout for other sets of tasks. | - |

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| **Total of WP 1.3** | **-** |

| CLIN | SOW reference | Description | Price | Delivery time | Optional Comments (Mandatory for zero costs lines) |
|---|---|---|---|---|---|
| | | Declare Currency => | - | | |
| 5 | 3.6 | **Optional 3rd and 4th Level Maintenance and Support (after Warranty)** | - | | |
| 5.1 | 3.6 | 3rd and 4th level Maintenance and Support - Option Year 1 | - | From FSA + 1 year to FSA + 2 years | |
| 5.2 | 3.6 | 3rd and 4th level Maintenance and Support - Option Year 2 | - | From FSA + 2 years to FSA + 3 years | |
| 5.3 | 3.6 | 3rd and 4th level Maintenance and Support - Option Year 3 | - | From FSA + 3 years to FSA + 4 years | |
| 5.4 | 3.6 | 3rd and 4th level Maintenance and Support - Option Year 4 | - | From FSA + 4 years to FSA + 5 years | |
| 5.5 | 3.6 | 3rd and 4th level Maintenance and Support - Option Year 5 | - | From FSA + 5 years to FSA + 6 years | |

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| **Total of WP 1.4 - 3rd and 4th Level Maintenance and Support** | - |

| CLIN | Labour Category | Currency | Man-Days 2021 | Man-Days 2022 | Man-Days 2023 | Man-Days 2024 | Man-Days 2025 | Man-Days 2026 | Man-Days 2027 | Man-Days 2028 | Man-Days 2029 | Man-Days 2030 | Lab-rate 2021 | Lab-rate 2022 | Lab-rate 2023 | Lab-rate 2024 | Lab-rate 2025 | Lab-rate 2026 | Lab-rate 2027 | Lab-rate 2028 | Lab-rate 2029 | Lab-rate 2030 | Extended cost | Expat Allowance (ONLY if applicable) | Profit | Fully burdened cost | Subcontracted/ Name of Subcontractor |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Example. CLIN 1.1 | Systems Engineer | Euro (EUR) | 25 | 20 | 15 | 10 | 5 | 10 | 15 | 20 | 25 | 30 | 50.00 | 51.00 | 52.00 | 53.00 | 54.00 | 55.00 | 56.00 | 57.00 | 58.00 | 59.00 | 9,600.00 | | 960.00 | 10,560.00 | No |
| CLIN 1.1 | Insert Labour category name here | | | | | | | | | | | | | | | | | | | | | | - | | 0.00 | 0.00 | |
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| **Total** | | | | | | | | | | | | | | | | | | | | | | | | | | **0.00** | |

| CLIN | Equipment Name | Item Description | Currency | Quantity 2021 | Quantity 2022 | Quantity 2023 | Quantity 2024 | Quantity 2025 | Quantity 2026 | Quantity 2027 | Quantity 2028 | Quantity 2029 | Quantity 2030 | Unit cost 2021 | Unit cost 2022 | Unit cost 2023 | Unit cost 2024 | Unit cost 2025 | Unit cost 2026 | Unit cost 2027 | Unit cost 2028 | Unit cost 2029 | Unit cost 2030 | Extended cost | Profit | Fully burdened cost | Subcontracted/ Name of Subcontractor |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Example. CLIN 1.1 | EXAMPLE: BrandX Server: TS1593 | Example: HT800003 (model number) | Euro (EUR) | 10 | 20 | 25 | 5 | 5 | 10 | 15 | 20 | 10 | 5 | 150.00 | 155.00 | 160.00 | 165.00 | 170.00 | 175.00 | 180.00 | 185.00 | 190.00 | 195.00 | 21,300.00 | 2,130.00 | 24,430.00 | No |
| CLIN 1.1 | Insert Purchased Equipment name | Insert Item Description/Model number | | | | | | | | | | | | | | | | | | | | | | 0.00 | 0.00 | 0.00 | |
| | Insert Purchased Equipment name | Insert Item Description/Model number | | | | | | | | | | | | | | | | | | | | | | 0.00 | 0.00 | 0.00 | |
| | Insert Purchased Equipment name | Insert Item Description/Model number | | | | | | | | | | | | | | | | | | | | | | 0.00 | 0.00 | 0.00 | |
| | Insert Purchased Equipment name | Insert Item Description/Model number | | | | | | | | | | | | | | | | | | | | | | 0.00 | 0.00 | 0.00 | |
| | Insert Purchased Equipment name | Insert Item Description/Model number | | | | | | | | | | | | | | | | | | | | | | 0.00 | 0.00 | 0.00 | |
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| | Insert Purchased Equipment name | Insert Item Description/Model number | | | | | | | | | | | | | | | | | | | | | | 0.00 | 0.00 | 0.00 | |
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| | Insert Purchased Equipment name | Insert Item Description/Model number | | | | | | | | | | | | | | | | | | | | | | 0.00 | 0.00 | 0.00 | |
| | Insert Purchased Equipment name | Insert Item Description/Model number | | | | | | | | | | | | | | | | | | | | | | 0.00 | 0.00 | 0.00 | |
| | Insert Purchased Equipment name | Insert Item Description/Model number | | | | | | | | | | | | | | | | | | | | | | 0.00 | 0.00 | 0.00 | |
| | Insert Purchased Equipment name | Insert Item Description/Model number | | | | | | | | | | | | | | | | | | | | | | 0.00 | 0.00 | 0.00 | |
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| | Insert Purchased Equipment name | Insert Item Description/Model number | | | | | | | | | | | | | | | | | | | | | | 0.00 | 0.00 | 0.00 | |
| | Insert Purchased Equipment name | Insert Item Description/Model number | | | | | | | | | | | | | | | | | | | | | | 0.00 | 0.00 | 0.00 | |
| | Insert Purchased Equipment name | Insert Item Description/Model number | | | | | | | | | | | | | | | | | | | | | | 0.00 | 0.00 | 0.00 | |
| | Insert Purchased Equipment name | Insert Item Description/Model number | | | | | | | | | | | | | | | | | | | | | | 0.00 | 0.00 | 0.00 | |
| | Insert Purchased Equipment name | Insert Item Description/Model number | | | | | | | | | | | | | | | | | | | | | | 0.00 | 0.00 | 0.00 | |
| | Insert Purchased Equipment name | Insert Item Description/Model number | | | | | | | | | | | | | | | | | | | | | | 0.00 | 0.00 | 0.00 | |
| | Insert Purchased Equipment name | Insert Item Description/Model number | | | | | | | | | | | | | | | | | | | | | | 0.00 | 0.00 | 0.00 | |
| | Insert Purchased Equipment name | Insert Item Description/Model number | | | | | | | | | | | | | | | | | | | | | | 0.00 | 0.00 | 0.00 | |
| | Insert Purchased Equipment name | Insert Item Description/Model number | | | | | | | | | | | | | | | | | | | | | | 0.00 | 0.00 | 0.00 | |
| | Insert Purchased Equipment name | Insert Item Description/Model number | | | | | | | | | | | | | | | | | | | | | | 0.00 | 0.00 | 0.00 | |
| | Insert Purchased Equipment name | Insert Item Description/Model number | | | | | | | | | | | | | | | | | | | | | | 0.00 | 0.00 | 0.00 | |
| | Insert Purchased Equipment name | Insert Item Description/Model number | | | | | | | | | | | | | | | | | | | | | | 0.00 | 0.00 | 0.00 | |
| | Insert Purchased Equipment name | Insert Item Description/Model number | | | | | | | | | | | | | | | | | | | | | | 0.00 | 0.00 | 0.00 | |
| | Insert Purchased Equipment name | Insert Item Description/Model number | | | | | | | | | | | | | | | | | | | | | | 0.00 | 0.00 | 0.00 | |
| | Insert Purchased Equipment name | Insert Item Description/Model number | | | | | | | | | | | | | | | | | | | | | | 0.00 | 0.00 | 0.00 | |
| | Insert Purchased Equipment name | Insert Item Description/Model number | | | | | | | | | | | | | | | | | | | | | | 0.00 | 0.00 | 0.00 | |
| | Insert Purchased Equipment name | Insert Item Description/Model number | | | | | | | | | | | | | | | | | | | | | | 0.00 | 0.00 | 0.00 | |
| | Insert Purchased Equipment name | Insert Item Description/Model number | | | | | | | | | | | | | | | | | | | | | | 0.00 | 0.00 | 0.00 | |
| | Insert Purchased Equipment name | Insert Item Description/Model number | | | | | | | | | | | | | | | | | | | | | | 0.00 | 0.00 | 0.00 | |
| | Insert Purchased Equipment name | Insert Item Description/Model number | | | | | | | | | | | | | | | | | | | | | | 0.00 | 0.00 | 0.00 | |
| | Insert Purchased Equipment name | Insert Item Description/Model number | | | | | | | | | | | | | | | | | | | | | | 0.00 | 0.00 | 0.00 | |
| | Insert Purchased Equipment name | Insert Item Description/Model number | | | | | | | | | | | | | | | | | | | | | | 0.00 | 0.00 | 0.00 | |
| | 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 | Rome/The Hague | 2021 | Euro (EUR) | 4 | 3 | 5 | 600.00 | 150.00 | 16,200.00 | 810.00 | 17,010.00 |
| CLIN 1.1 | Insert Origin/destination | | | | | | | | - | 0.00 | 0.00 |
| | Insert Origin/destination | | | | | | | | - | 0.00 | 0.00 |
| | Insert Origin/destination | | | | | | | | - | 0.00 | 0.00 |
| | Insert Origin/destination | | | | | | | | - | 0.00 | 0.00 |
| | Insert Origin/destination | | | | | | | | - | 0.00 | 0.00 |
| | Insert Origin/destination | | | | | | | | - | 0.00 | 0.00 |
| | Insert Origin/destination | | | | | | | | - | 0.00 | 0.00 |
| | Insert Origin/destination | | | | | | | | - | 0.00 | 0.00 |
| | Insert Origin/destination | | | | | | | | - | 0.00 | 0.00 |
| | Insert Origin/destination | | | | | | | | - | 0.00 | 0.00 |
| | Insert Origin/destination | | | | | | | | - | 0.00 | 0.00 |
| | Insert Origin/destination | | | | | | | | - | 0.00 | 0.00 |
| | Insert Origin/destination | | | | | | | | - | 0.00 | 0.00 |
| | Insert Origin/destination | | | | | | | | - | 0.00 | 0.00 |
| | Insert Origin/destination | | | | | | | | - | 0.00 | 0.00 |
| | Insert Origin/destination | | | | | | | | - | 0.00 | 0.00 |
| | Insert Origin/destination | | | | | | | | - | 0.00 | 0.00 |
| | Insert Origin/destination | | | | | | | | - | 0.00 | 0.00 |
| | Insert Origin/destination | | | | | | | | - | 0.00 | 0.00 |
| | Insert Origin/destination | | | | | | | | - | 0.00 | 0.00 |
| | Insert Origin/destination | | | | | | | | - | 0.00 | 0.00 |
| | Insert Origin/destination | | | | | | | | - | 0.00 | 0.00 |
| | Insert Origin/destination | | | | | | | | - | 0.00 | 0.00 |
| | Insert Origin/destination | | | | | | | | - | 0.00 | 0.00 |
| | Insert Origin/destination | | | | | | | | - | 0.00 | 0.00 |
| | Insert Origin/destination | | | | | | | | - | 0.00 | 0.00 |
| | Insert Origin/destination | | | | | | | | - | 0.00 | 0.00 |
| | Insert Origin/destination | | | | | | | | - | 0.00 | 0.00 |
| | Insert Origin/destination | | | | | | | | - | 0.00 | 0.00 |
| | Insert Origin/destination | | | | | | | | - | 0.00 | 0.00 |
| | Insert Origin/destination | | | | | | | | - | 0.00 | 0.00 |
| | Insert Origin/destination | | | | | | | | - | 0.00 | 0.00 |
| | Insert Origin/destination | | | | | | | | - | 0.00 | 0.00 |
| | Insert Origin/destination | | | | | | | | - | 0.00 | 0.00 |
| | Insert Origin/destination | | | | | | | | - | 0.00 | 0.00 |
| | 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 | Shipping | Shipping USA to BRU | 2021 | Euro (EUR) | Lot | 2 | 3,000.00 | 6,000.00 | 300.00 | 6,300.00 |
| CLIN 1.1 | Insert Other Direct Cost item | | | | | | | 0.00 | 0.00 | 0.00 |
| | Insert Other Direct Cost item | | | | | | | 0.00 | 0.00 | 0.00 |
| | Insert Other Direct Cost item | | | | | | | 0.00 | 0.00 | 0.00 |
| | Insert Other Direct Cost item | | | | | | | 0.00 | 0.00 | 0.00 |
| | Insert Other Direct Cost item | | | | | | | 0.00 | 0.00 | 0.00 |
| | Insert Other Direct Cost item | | | | | | | 0.00 | 0.00 | 0.00 |
| | Insert Other Direct Cost item | | | | | | | 0.00 | 0.00 | 0.00 |
| | Insert Other Direct Cost item | | | | | | | 0.00 | 0.00 | 0.00 |
| | Insert Other Direct Cost item | | | | | | | 0.00 | 0.00 | 0.00 |
| | Insert Other Direct Cost item | | | | | | | 0.00 | 0.00 | 0.00 |
| | Insert Other Direct Cost item | | | | | | | 0.00 | 0.00 | 0.00 |
| | Insert Other Direct Cost item | | | | | | | 0.00 | 0.00 | 0.00 |
| | Insert Other Direct Cost item | | | | | | | 0.00 | 0.00 | 0.00 |
| | Insert Other Direct Cost item | | | | | | | 0.00 | 0.00 | 0.00 |
| | Insert Other Direct Cost item | | | | | | | 0.00 | 0.00 | 0.00 |
| | Insert Other Direct Cost item | | | | | | | 0.00 | 0.00 | 0.00 |
| | Insert Other Direct Cost item | | | | | | | 0.00 | 0.00 | 0.00 |
| | Insert Other Direct Cost item | | | | | | | 0.00 | 0.00 | 0.00 |
| | Insert Other Direct Cost item | | | | | | | 0.00 | 0.00 | 0.00 |
| | Insert Other Direct Cost item | | | | | | | 0.00 | 0.00 | 0.00 |
| | Insert Other Direct Cost item | | | | | | | 0.00 | 0.00 | 0.00 |
| | Insert Other Direct Cost item | | | | | | | 0.00 | 0.00 | 0.00 |
| | Insert Other Direct Cost item | | | | | | | 0.00 | 0.00 | 0.00 |
| | Insert Other Direct Cost item | | | | | | | 0.00 | 0.00 | 0.00 |
| | Insert Other Direct Cost item | | | | | | | 0.00 | 0.00 | 0.00 |
| | Insert Other Direct Cost item | | | | | | | 0.00 | 0.00 | 0.00 |
| | Insert Other Direct Cost item | | | | | | | 0.00 | 0.00 | 0.00 |
| | Insert Other Direct Cost item | | | | | | | 0.00 | 0.00 | 0.00 |
| | Insert Other Direct Cost item | | | | | | | 0.00 | 0.00 | 0.00 |
| | Insert Other Direct Cost item | | | | | | | 0.00 | 0.00 | 0.00 |
| | Insert Other Direct Cost item | | | | | | | 0.00 | 0.00 | 0.00 |
| | Insert Other Direct Cost item | | | | | | | 0.00 | 0.00 | 0.00 |
| | Insert Other Direct Cost item | | | | | | | 0.00 | 0.00 | 0.00 |
| | 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% |
| | | |
| | | |
| | | |
| | | |

# 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.**<br><br>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.<br><br>Bidders are **REQUIRED** to complete the following tabs:<br>- **"Offer Summary"**,<br>- **"CLIN Summary"**, "WP2.1 Implementation", "WP 2.2 3rd level support"<br>- **"Labour"**,<br>- **"Material"**,<br>- **"Travel"**,<br>- **"ODC",**<br>- **"Rates"**.<br>**Note that input cells in the "Offer Summary", the "CLIN Summary", "WP2.1 Implementation", "WP 2.2 3rd level support" tabs are colour coded YELLOW.**<br><br>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.**<br><br>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.<br><br>**Bids in MULTIPLE CURRENCIES should follow the following instructions:**<br>- For the "Offer Summary" tab bidders must add "Firm Fixed Price" column to the right of the current table for each additional currency.<br>- 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.<br>- 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**<br>**LABOUR**<br>**TRAVEL**<br>**ODCs** | Please note that for these tables (Material, Labour, Travel and ODCs), the bidder is required to provide the required information down to the **Service level only** (this is the CLIN X.1 level, for example CLIN 1.2, CLIN 2.1, CLIN 3.6, etc.) It is not necessary to further break out the costs in these tables down to the Requirement level (this is the CLIN X.1.2.3, for example CLIN 2.1.3.1, CLIN 3.6.1.1, etc.)<br><br>[The bidder is required to provide a cost down to the **Requirement level** on the WP1.1, 1.2, 1.3, and 1.4 tables. ]<br><br>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. 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.<br><br>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.<br><br>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. |

*For multiple currencies, duplicate the "Firm Fixed Price" column for each currency*

| 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** | - |

| | | |
|---|---|---|
| CLIN 1 | Backend services - Phase 1 | - |
| CLIN 2 | Backend services - Phase 2 | - |
| CLIN 3 | System Administration (SysAdm) tool | - |
| CLIN 4 | Integration services - I2BE destination | - |
| CLIN 5 | Integration services – I2BE source | - |
| | 1-Year Warranty | *Price included in CLINs 1-5* |
| **Total Firm Fixed Price Base Contract** | | - |
| CLIN 6 | Optional 3rd and 4th Level Maintenance and Support (after Warranty) | - |
| **Total Firm Fixed Price Evaluated Options** | | - |

| | | |
|---|---|---|
| | Total Incentive [not included in Evaluated Price] | - |

**Offer Summary Instructions:**

Bidders are to populate all **yellow cells**. Firm fixed prices need to be provided for every CLIN, with no omissions.

*Note that any formulas existing in the cells are provided only to assist the bidder, and ultimately all calculations are the bidder's responsibility. As such, the contractor may alter any formulas necessary to provide an accurate, clear and traceable bid as required.*

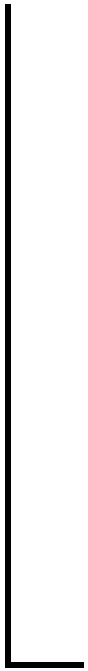
**Important Note:** The Total sum firm fixed price column in this "Offer Summary" sheet should equal the grand total from the "CLIN Summary" tab. These totals are also required to be traceable to the totals from the details tabs (Labour+Material+Travel+ODCs)= Grand Total= CLIN Summary

| CLIN Number | CLIN DESCRIPTION | Firm Fixed Price | Firm Fixed Price | Firm Fixed Price |
|---|---|---|---|---|
| Currency | | Euro (€ UR) | US Dollar (USD) | UK Pound sterling (GBP) |
| CLIN 1 | Insert Base Contract CLIN Description here | | | |
| CLIN 2 | Insert Base Contract CLIN Description here | | | |
| CLIN 3 | Insert Base Contract CLIN Description here | | | |
| CLIN 4 | Insert Base Contract CLIN Description here | | | |
| CLIN 5 | Insert Base Contract CLIN Description here | | | |
| CLIN 6 | Insert Base Contract CLIN Description here | | | |
| CLIN 7 | Insert Base Contract CLIN Description here | | | |

# Total Contract Summary

| CLIN | DESCRIPTION | | TOTAL PRICE |
|---|---|---|---|
| | | Currency | - |
| CLIN 1 | Backend services - Phase 1 | | - |
| CLIN 2 | Backend services - Phase 2 | | - |
| CLIN 3 | System Administration (SysAdm) tool | | - |
| CLIN 4 | Integration services - I2BE destination | | - |
| CLIN 5 | Integration services – I2BE source | | - |
| | 1-Year Warranty | | *Included in CLINs 1 to 5* |
| | | Subtotal - Basic Contract | **-** |
| INC1 | Maximum Incentive 1 (5%) | 5% | - |
| INC2 | Maximum Incentive 2 (5%) | 5% | - |
| | | Subtotal - Incentives | - |
| | **Total - Basic Contract** | | **-** |
| | | | |
| CLIN 6 | Optional 3rd and 4th Level Maintenance and Support (after Warranty) | | - |
| | | Subtotal - Optional Support | **-** |
| | **Grand Total Contract** | | **-** |

| CLIN |
|---|
| **1** |
| 1.1 |
| 1.2 |
| 1.3 |
| 1.4 |
| 1.5 |
| 1.6 |
| 1.7 |
| 1.8 |
| 1.9 |
| 1.10 |
| 1.11 |
| 1.12 |
| 1.13 |
| 1.14 |
| 1.15 |
| 1.16 |
| 1.17 |
| 1.18 |
| 1.19 |



| CLIN | Deliverable | SRS reference | Description | Price | Optional Comments (Mandatory for zero costs lines) |
|---|---|---|---|---|---|
| | | | **Declare Currency =>** | - | |
| **1** | | **3.1** | **Backend services - Phase 1** | **-** | |
| **1.1** | **Association Svc** | **3.1.1** | **IIE to IIE Association Service** | **-** | |
| *1.1.1* | *Association Svc* | *3.1.1.1* | *API* | - | |
| 1.1.1.1 | Association Svc | [FBE-1] | The IIE to IIE Association Service shall through the OData REST API support all IIE access actions on inter-service IIE relationships (for an authorized client). | - | |
| 1.1.1.2 | Association Svc | [FBE-2] | The IIE to IIE Association Service shall implement server-side functionality that enables the I2UA client though service's API to fulfil any acceptance criteria defined in [INTEL-FS2-UserStories] that describes management of associations between IIEs (this includes [US 15], [US 17], [US 18], [US 22], [US 33], [US 36], [US 38], [US 39], [US 40], [US 43], [US 47], [US 48], [US 53], [US 58], [US 61], [US 64], [US 65], [US 67], [US 72], [US 75], [US 76], [US 77], and [US 83]). This means that the IIE to IIE Association Service shall though a REST API enable clients to create and manage (update and delete) associations as defined in [INTEL-FS2-IM]. | - | |
| 1.1.1.3 | Association Svc | [FBE-3] | The IIE to IIE Association Service shall after a create, update or delete change to an association, post an event message to the SOA & IdM Platform as a notification that a change has occurred where the event message identifies the changed association, and the type of change. | - | |
| 1.1.1.4 | Association Svc | [FBE-4] | The IIE to IIE Association Service API shall have support for creating associations from an IIE to a temporarily non-existing IIE (i.e. an IIE that has not yet been established in the I2BE, but that will be established). | - | |
| 1.1.1.5 | Association Svc | [FBE-5] | The IIE to IIE Association Service API shall have support for creating associations to externally hosted information entities identified by an endpoint identifier (e.g. a URL) to the external entity. | - | |
| 1.1.1.6 | Association Svc | [FBE-6] | The IIE to IIE Association Service API shall for clients accessing dangling/ incomplete associations inform (indicate to) the client about the dangling endpoint(s). | - | |
| 1.1.1.7 | Association Svc | [FBE-7] | The IIE to IIE Association Service API shall implement a query function to find, and return to a requesting client, all IIEs that are associated to a specific IIE (as identified in the client request). The returned information shall provide all details on the individual associations. | - | |
| 1.1.1.8 | Association Svc | [FBE-8] | The IIE to IIE Association Service API shall implement a query function that returns a list of incomplete associations (i.e. containing a dangling endpoint). | - | |
| 1.1.1.9 | Association Svc | [FBE-9] | The IIE to IIE Association Service API shall implement a function that checks associations to external information endpoints and report on the endpoints that are found not to be reachable. | - | |
| **1.2** | **Geographic Area Svc** | **3.1.2** | **Geospatial and Features Service** | **-** | |
| *1.2.1* | *Geographic Area Svc* | *3.1.2.1* | *API* | - | |
| 1.2.1.1 | Geographic Area Svc | [FBE-10] | The Geospatial and Features Service shall through the OData REST API support all IIE access actions on Features (for an authorized client) | - | |
| 1.2.1.2 | Geographic Area Svc | [FBE-11] | The Geospatial and Features Service shall implement over the OData REST API support for geospatial querying consistent with the OData specification for geospatial support. | - | |
| 1.2.1.3 | Geographic Area Svc | [FBE-12] | The Geospatial and Features Service shall implement general geospatial support at the IIE level. For example it should be possible to query for Units that are within a Named Area of Interest. | - | |
| 1.2.1.4 | Geographic Area Svc | [FBE-13] | Geospatial and Features Service shall implement all the server-side functionality (i.e. anything not user-interface related) to fulfil the user stories [US 33] and [US 47] with backend-relevant acceptance criteria for geographic areas as defined in [INTEL-FS2-UserStories]. | - | |
| 1.2.1.5 | Geographic Area Svc | [FBE-14] | The Geospatial and Features Service shall after a create, update or delete change to a geographical feature, post an event message to the SOA & IdM Platform as a notification that a change has occurred where the event message carry information on the type of IIE, identification of the changed IIE, and the type of change. | - | |
| 1.2.1.6 | Geographic Area Svc | [FBE-15] | The Geospatial and Features Service API shall support uploading of one or many attachments to geographical feature. | - | |
| **1.3** | **IFS1 Geo-Area Migration** | **3.1.3** | **Intel-FS Spiral 1 Geospatial and Features Migration Service** | **-** | |
| *1.3.1* | *IFS1 Geo-Area Migration* | *3.1.3.1* | *Extract, transform, load geographical areas* | - | |
| 1.3.1.1 | IFS1 Geo-Area Migration | [FBE-16] | The INTEL-FS Spiral1 Geospatial and Features Migration Service shall at regular intervals (where the interval frequency shall be configurable), poll the INTEL-FS Spiral1 for new geographic areas (features). It shall be possible through a configurable filter setting to filter the geographic areas that are extracted from INTEL-FS Spiral1. | - | |
| 1.3.1.2 | IFS1 Geo-Area Migration | [FBE-17] | The INTEL-FS Spiral1 Geospatial and Features Migration Service shall transform the extracted geographic areas into a format that is compliant with the OData REST API implemented by the Geospatial and Features Service and load the transformed Geospatial and Features into the I2BE through the Geospatial and Features Service. | - | |

| | | | | |
|---|---|---|---|---|
| 1.3.1.3 | IFS1 Geo-Area Migration | [FBE-18] | The INTEL-FS Spiral1 Geospatial and Features Migration Service shall identify associations to other IIEs in the extracted geographic areas and transform those associations into a format that is compliant with the OData REST API implemented by the IIE to IIE Association Service and load the transformed IIE associations into the I2BE through the IIE to IIE Association Service. | - |
| 1.3.1.4 | IFS1 Geo-Area Migration | [FBE-19] | Using this ETL process, it shall be possible to migrate all geographic areas, without any data loss, from INTEL-FS Spiral 1 into the I2BE. | - |
| **1.4** | **Product Mgmt Svc** | **3.1.4** | **Products Management Service** | - |
| *1.4.1* | *Product Mgmt Svc* | *3.1.4.1* | *API* | - |
| 1.4.1.1 | Product Mgmt Svc | [FBE-20] | The Products Management Service shall through the OData REST API support all IIE access actions on products (for an authorized client). | - |
| 1.4.1.2 | Product Mgmt Svc | [FBE-21] | The Products Management Service shall implement all the server-side functionality (i.e. anything not user-interface related) to fulfil the user stories [US 15], [US 16], and [US 17] with backend-relevant acceptance criteria as defined in [INTEL-FS2-UserStories]. | - |
| 1.4.1.3 | Product Mgmt Svc | [FBE-22] | The Products Management Service shall after a create, update or delete change to a product, post an event message to the SOA & IdM Platform as a notification that a change has occurred where the event message carry information on the type of IIE, identification of the changed IIE, and the type of change. | - |
| 1.4.1.4 | Product Mgmt Svc | [FBE-23] | The Products Management Service API shall support uploading of one or many attachments to a product in addition to the product file. | - |
| 1.4.1.5 | Product Mgmt Svc | [FBE-24] | The Products Management Service shall have support for management (create, read, update, and delete) of templates for creation of products. The template shall contain product metadata, but no product file. | - |
| 1.4.1.6 | Product Mgmt Svc | [FBE-25] | The Products Management Service shall upon a client request return a template product metadata set where some text is dynamically set through usage of “tags” where the tags are replaced by actual values, as shown in the example below. | - |
| *1.4.2* | *Product Mgmt Svc* | *3.1.4.2* | *Transformation of files to PDF service* | - |
| 1.4.2.1 | Product Mgmt Svc | [FBE-26] | The Products Management Service shall, upon a client request, convert a client-specified Microsoft Office file (MS Word or PowerPoint) or an image file (in common image formats) to a PDF file, and return the PDF file to the client. | - |
| *1.4.3* | *Product Mgmt Svc* | *3.1.4.3* | *Automatic metadata extraction from files (support to product creation)* | - |
| 1.4.3.1 | Product Mgmt Svc | [FBE-27] | The Product Management Service shall, upon a client request, processes document product files (in either PDF or MS Word format) to detect Keywords (mapping terms in the report to Keywords) and Locations, and return the found Keywords and Locations to the client. | - |
| 1.4.3.2 | Product Mgmt Svc | [FBE-28] | The rules for mapping terms in the report to Keywords shall be dynamically configurable. I.e. it shall be possible to update the mapping rule set and dictionaries, and activate the updates, without restarting the I2BE. | - |
| 1.4.3.3 | Product Mgmt Svc | [FBE-29] | The rule set for identifying Keywords and Locations shall be extendable and configurable through configurations (i.e. not requiring SW re-build). | - |
| 1.4.3.4 | Product Mgmt Svc | [FBE-30] | The Products Management Service shall, upon a client request, extract metadata attributes from a client-specified STANAG 4545 image file, map relevant metadata to INTEL-FS2 metadata attributes, and return the metadata mapping to the client. | - |
| 1.4.3.5 | Product Mgmt Svc | [FBE-31] | The Products Management Service shall, upon a client request, extract metadata attributes from a client-specified STANAG 4609 video file, map relevant metadata to INTEL-FS2 metadata attributes, and return the metadata mapping to the client. | - |
| **1.5** | **IFS1 Product Migration** | **3.1.5** | **Intel-FS Spiral 1 Products Migration Service** | - |
| *1.5.1* | *IFS1 Product Migration* | *3.1.3.1* | *Extract, transform, load geographical areas* | - |
| 1.5.1.1 | IFS1 Product Migration | [FBE-32] | The INTEL-FS Spiral1 Products Migration Service shall at regular intervals (where the interval frequency shall be configurable), poll the INTEL-FS Spiral1 for new products. It shall be possible through a configurable filter setting to filter the products that are extracted from INTEL-FS Spiral1. | - |
| 1.5.1.2 | IFS1 Product Migration | [FBE-33] | The INTEL-FS Spiral1 Products Migration Service shall transform the extracted products into a format that is compliant with the OData REST API implemented by the Products Management Service and load the transformed products into the I2BE through the Products Management Service. | - |
| 1.5.1.3 | IFS1 Product Migration | [FBE-34] | The INTEL-FS Spiral1 Products Migration Service shall identify associations to other IIEs in the extracted products and transform those associations into a format that is compliant with the OData REST API implemented by the IIE to IIE Association Service and load the transformed IIE associations into the I2BE through the IIE to IIE Association Service. | - |
| 1.5.1.4 | IFS1 Product Migration | [FBE-35] | Using this ETL process, it shall be possible to migrate all products, without any data loss, from INTEL-FS Spiral 1 into the I2BE. | - |
| **1.6** | **Collation Tasking Svc** | **3.1.6** | **Collation Tasking Management Service** | - |
| *1.6.1* | *Collation Tasking Svc* | *3.1.6.1* | *API* | - |

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| 1.6.1.1 | Collation Tasking Svc | [FBE-36] | The Collation Tasking Service shall through the OData REST API support all IIE access actions on collation tasking information (for an authorized client). | - |
| 1.6.1.2 | Collation Tasking Svc | [FBE-37] | The Collation Tasking Service shall implement all the server-side functionality (i.e. anything not user-interface related) to fulfil the user stories [US 26] and [US 27] with backend-relevant acceptance criteria as defined in [INTEL-FS2-UserStories]. | - |
| 1.6.1.3 | Collation Tasking Svc | [FBE-38] | The Collation Tasking Service shall after a create, update or delete change to a product post an event message to the SOA & IdM Platform as a notification that a change has occurred where the event message carry information on the type of IIE, identification of the changed IIE, and the type of change. | - |
| 1.6.1.4 | Collation Tasking Svc | [FBE-39] | The Collation Tasking Service shall maintain lists of collation status on document products (i.e. reports) as defined by the collation tasking choreography as defined in [INTEL-FS2-IM]. | - |
| 1.6.1.5 | Collation Tasking Svc | [FBE-40] | The Collation Tasking Service shall enable clients to search for, filter, and retrieve lists of document products (reports) according to their collation status (e.g. to retrieve reports needing collation, reports assigned for collation, etc.). The filtering mechanism shall support filtering on collation status, assigned user, source of product, product creation/ modification time, etc. | - |
| 1.6.1.6 | Collation Tasking Svc | [FBE-41] | The Collation Tasking Service shall enable clients to specify rules for automatically identifying which ON that will be responsible for collating which products. The rules shall identify the ON responsible for a product collation based on product metadata including Keyword, producer, and title (e.g. using regular expression against the title to look for a certain clue). | - |
| 1.6.1.7 | Collation Tasking Svc | [FBE-42] | The Collation Tasking Service shall manage collation task assignments (i.e. which user is assigned to collate which product). | - |
| **1.7** | **BSO Mgmt Svc** | **3.1.7** | **Battlespace Object (BSO) Management Service** | - |
| *1.7.1* | *BSO Mgmt Svc* | *3.1.7.1* | *API* | - |
| 1.7.1.1 | BSO Mgmt Svc | [FBE-43] | The BSO Management Service shall through the OData REST API support all IIE access actions on BSO/ BSRs (for an authorized client). | - |
| 1.7.1.2 | BSO Mgmt Svc | [FBE-44] | The BSO Management Service shall implement all the server-side functionality (i.e. anything not user-interface related) to fulfil the user stories [US 18] through [US 25] with backend-relevant acceptance criteria as defined in [INTEL-FS2-UserStories]. | - |
| 1.7.1.3 | BSO Mgmt Svc | [FBE-45] | The BSO Management Service shall after a create, update or delete change to a BSO/ BSR, post an event message to the SOA & IdM Platform as a notification that a change has occurred where the event message carry information on the type of IIE, identification of the changed IIE, and the type of change. | - |
| 1.7.1.4 | BSO Mgmt Svc | [FBE-46] | The BSO Management Service API shall support uploading of one or many attachments to a BSO and/ or a BSR. | - |
| 1.7.1.5 | BSO Mgmt Svc | [FBE-47] | The BSO Management Service shall, upon a client request, be able to move a BSR from one BSO to another BSO (to rectify situations where a BSR has been created for the wrong BSO). | - |
| 1.7.1.6 | BSO Mgmt Svc | [FBE-48] | The BSO Management Service shall have support for management (create, read, update, and delete) of templates for creation of BSOs and BSRs. | - |
| 1.7.1.7 | BSO Mgmt Svc | [FBE-49] | The BSO Management Service shall, to support link analysis, manage associations to other IIEs at the BSO level in accordance with [INTEL-FS2-IM] (in addition to tracking associations at status report level ). | - |
| *1.7.2* | *BSO Mgmt Svc* | *3.1.7.2* | *Merging of BSOs* | - |
| 1.7.2.1 | BSO Mgmt Svc | [FBE-50] | The BSO Management Service shall implement a function in the REST API for merging of two or more BSOs into one consolidated BSO (consolidating BSO attributes across the different BSOs) and aggregating all BSRs (with attachments) in a chronological order based on the ASAT time. | - |
| 1.7.2.2 | BSO Mgmt Svc | [FBE-51] | The BSO Management Service shall move all associations that involved the original BSOs onto the new merged BSO. | - |
| 1.7.2.3 | BSO Mgmt Svc | [FBE-52] | The BSO Management Service shall for client access requests through the REST API to a de-duplicated BSO (i.e. a BSO that can no longer be used) inform the client that the BSO has been replaced by the new BSO with the identification details of the new merged BSO (e.g. trough throwing an exception). | - |
| *1.7.3* | *BSO Mgmt Svc* | *3.1.7.3* | *Identification of existing BSOs in document products* | - |
| 1.7.3.1 | BSO Mgmt Svc | [FBE-53] | The BSO Management Service shall maintain dynamically updated dictionaries of existing BSOs of type Persons, Organizations, Units, Events, Places, and Equipment. Note: Dynamically updated means that whenever BSOs are updated the dictionaries are automatically and immediately updated. | - |
| 1.7.3.2 | BSO Mgmt Svc | [FBE-54] | The BSO Management Service shall, upon a client request, extract raw text from the file of a DocumentProduct and match it against dictionaries to identify existing BSOs of type Persons, Organizations, Units, Places, Events, and Equipment using a rule set that as a minimum includes the rules identified in the table below. The processed text shall be returned a marked-up format (e.g. XML) where each of the found BSOs are tagged with BSO identifying information (enabling client applications to display and retrieve information on the identified BSOs). The extracted text, shall to the maximum extent have the same structure of paragraphs as the original document report with clear and distinct separation between the paragraphs. A line-break in the original report shall not result in a new paragraph in the extracted text. | - |

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| 1.7.3.3 | BSO Mgmt Svc | [FBE-55] | The rule set for identifying existing BSOs shall be extendable and configurable through configurations (i.e. not requiring SW re-build). | - |
| 1.7.3.4 | BSO Mgmt Svc | [FBE-56] | The dictionary matching shall implement Fuzzy Search techniques (like Levenshtein, SoundEx, and Metaphone) to be able to identify existing BSOs that are differently spelled in the report texts. | - |
| 1.7.3.5 | BSO Mgmt Svc | [FBE-57] | The dictionary matching shall implement the NEAR search-operator (e.g. this will allow a person to be found even if the raw text introduces a new/ unknown middle name for a person). | - |
| **1.8** | **ORBAT Mgmt Svc** | **3.1.8** | **ORBAT Management Service** | **-** |
| *1.8.1* | *ORBAT Mgmt Svc* | *3.1.8.1* | *API* | - |
| 1.8.1.1 | ORBAT Mgmt Svc | [FBE-58] | The ORBAT Management Service shall through the OData REST API support all IIE access actions on ORBATs (for an authorized client) including Basic Intel ORBAT - NATO::JISR::Staff::ORBAT package, Ballistic Missile ORBAT: NATO::JISR::Staff::ORBAT::BMORBAT package, and Electromagnetic ORBAT: NATO::JISR::Staff::ORBAT::EOBORBAT package. | - |
| 1.8.1.2 | ORBAT Mgmt Svc | [FBE-59] | The ORBAT Management Service shall implement all the server-side functionality (i.e. anything not user-interface related) to fulfil the user stories [US 28] and [US 29] with backend-relevant acceptance criteria as defined in [INTEL-FS2-UserStories]. | - |
| 1.8.1.3 | ORBAT Mgmt Svc | [FBE-60] | The ORBAT Management Service API shall support uploading of one or many attachments to an ORBAT. | - |
| 1.8.1.4 | ORBAT Mgmt Svc | [FBE-61] | The ORBAT Management Service shall after a create, update or delete change to a ORBAT, post an event message to the SOA & IdM Platform as a notification that a change has occurred where the event message carry information on the type of IIE, identification of the changed IIE, and the type of change. | - |
| **1.9** | **IFS1 BSO Migration** | **3.1.9** | **Intel-FS Spiral 1 BSO Migration Service** | **-** |
| *1.9.1* | *IFS1 BSO Migration* | *3.1.9.1* | *Extract, transform, load BSO data* | - |
| 1.9.1.1 | IFS1 BSO Migration | [FBE-62] | The INTEL-FS Spiral1 BSO Migration Service shall at regular intervals (where the interval frequency shall be configurable), poll the INTEL-FS Spiral1 for new BSO/ BSR data. It shall be possible through a configurable filter setting to filter the BSOs/ BSRs that are extracted from INTEL-FS Spiral1 | - |
| 1.9.1.2 | IFS1 BSO Migration | [FBE-63] | The INTEL-FS Spiral1 BSO Migration Service shall transform the extracted BSO/ BSR data into a format that is compliant with the OData REST API implemented by the BSO Management Service and load the transformed BSOs/ BSRs into the I2BE through the BSO Management Service. | - |
| 1.9.1.3 | IFS1 BSO Migration | [FBE-64] | The INTEL-FS Spiral1 BSO Migration Service shall identify associations to other IIEs in the extracted BSO/ BSR data and transform those associations into a format that is compliant with the OData REST API implemented by the IIE to IIE Association Service and load the transformed IIE associations into the I2BE through the IIE to IIE Association Service. | - |
| 1.9.1.4 | IFS1 BSO Migration | [FBE-65] | The INTEL-FS Spiral1 BSO Migration Service shall through inspection of the extracted BSO/ BSR data identify ORBATs and transform the ORBAT data into a format that is compliant with the OData REST API implemented by the ORBAT Management Service and load the transformed ORBATs into the I2BE through the ORBAT Management Service. | - |
| 1.9.1.5 | IFS1 BSO Migration | [FBE-66] | Using this ETL process, it shall be possible to migrate all BSO data and all ORBAT information, without any data loss, from INTEL-FS Spiral 1 into the I2BE. | - |
| **1.10** | **ISR Organization Svc** | **3.1.10** | **ISR Organization Service** | **-** |
| *1.10.1* | *ISR Organization Svc* | *3.1.10.1* | *API* | - |
| 1.10.1.1 | ISR Organization Svc | [FBE-67] | The ISR Organization Service shall through the OData REST API support all IIE access actions on ISR organizations (for an authorized client). | - |
| 1.10.1.2 | ISR Organization Svc | [FBE-68] | The ISR Organization Service shall implement all the server-side functionality (i.e. anything not user-interface related) to fulfil the user stories [US 58] through [US 61] and [US 63] with backend-relevant acceptance criteria as defined in [INTEL-FS2-UserStories]. | - |
| 1.10.1.3 | ISR Organization Svc | [FBE-69] | The ISR Organization Service shall after a create, update or delete change to any ISR organization data, post an event message to the SOA & IdM Platform as a notification that a change has occurred where the event message carry information on the type of IIE, identification of the changed IIE, and the type of change. | - |
| **1.11** | **Targets Svc** | **3.1.11** | **Targets Service** | **-** |
| *1.11.1* | *Targets Svc* | *3.1.11.1* | *API* | - |
| 1.11.1.1 | Targets Svc | [FBE-70] | The Target Service shall through the OData REST API support all IIE access actions on target data (for an authorized client). | - |
| 1.11.1.2 | Targets Svc | [FBE-71] | The Target Service shall implement all the server-side functionality (i.e. anything not user-interface related) to fulfil the user stories [US 30], [US 31] and [US 32] with backend-relevant acceptance criteria as defined in [INTEL-FS2-UserStories]. | - |
| 1.11.1. | Targets Svc | [FBE-72] | The Target Service API shall support uploading of one or many attachments to the target-related IIEs. | - |

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| 1.11.1.4 | Targets Svc | [FBE-73] | The Targets Service shall after a create, update or delete change to target data, post an event message to the SOA & IdM Platform as a notification that a change has occurred where the event message carry information on the type of IIE, identification of the changed IIE, and the type of change. | - |
| 1.11.1.5 | Targets Svc | [FBE-74] | The Targets Service shall manage Candidate No-strike BSOs (as per [INTEL-FS2-InformationMode] NATO::JISR::Staff::Target). | - |
| **1.12** | **IFS1 Target Migration** | **3.1.12** | **Intel-FS Spiral 1 Target Data Migration Service** | **-** |
| *1.12.1* | *IFS1 Target Migration* | *3.1.12.1* | *Extract, transform, load target areas* | - |
| 1.12.1.1 | IFS1 Target Migration | [FBE-75] | The INTEL-FS Spiral1 Target Data Migration Service shall at regular intervals (where the interval frequency shall be configurable), poll the INTEL-FS Spiral1 for new target data. It shall be possible through a configurable filter setting to filter the target data that are extracted from INTEL-FS Spiral1. | - |
| 1.12.1.2 | IFS1 Target Migration | [FBE-76] | The INTEL-FS Spiral1 Target Data Migration Service shall transform the extracted target data into a format that is compliant with the OData REST API implemented by the Target Service and load the transformed target data into the I2BE through the Target Service. | - |
| 1.12.1.3 | IFS1 Target Migration | [FBE-77] | The INTEL-FS Spiral1 Target Data Migration Service shall identify associations to other IIEs in the extracted target data and transform those associations into a format that is compliant with the OData REST API implemented by the IIE to IIE Association Service and load the transformed IIE associations into the I2BE through the IIE to IIE Association Service. | - |
| 1.12.1.4 | IFS1 Target Migration | [FBE-78] | Using this ETL process, it shall be possible to migrate all target information, without any data loss, from INTEL-FS Spiral 1 into the I2BE. | - |
| **1.13** | **Overlay Svc** | **3.1.13** | **Overlays Service** | **-** |
| *1.13.1* | *Overlay Svc* | *3.1.13.1* | *API* | - |
| 1.13.1.1 | Overlay Svc | [FBE-79] | The Overlays Service shall through the OData REST API support all IIE access actions on overlays (for an authorized client). | - |
| 1.13.1.2 | Overlay Svc | [FBE-80] | The Overlays Service shall implement all the server-side functionality (i.e. anything not user-interface related) to fulfil the user stories [US 34] and [US 35] with backend-relevant acceptance criteria as defined in [INTEL-FS2-UserStories]. | - |
| 1.13.1.3 | Overlay Svc | [FBE-81] | The Overlays Service shall after a create, update or delete change to an overlay, post an event message to the SOA & IdM Platform as a notification that a change has occurred where the event message carry information on the type of IIE, identification of the changed IIE, and the type of change. | - |
| **1.14** | **IFS1 Overlay Migration** | **3.1.14** | **Intel-FS Spiral 1 Overlays Migration Service** | **-** |
| *1.14.1* | *IFS1 Overlay Migration* | *3.1.14.1* | *Extract, transform, load overlays* | - |
| 1.14.1.1 | IFS1 Overlay Migration | [FBE-82] | The INTEL-FS Spiral 1 Overlays Migration Service shall at regular intervals (where the interval frequency shall be configurable), poll the INTEL-FS Spiral1 for new overlays. It shall be possible through a configurable filter setting to filter the overlays that are extracted from INTEL-FS Spiral1. | - |
| 1.14.1.2 | IFS1 Overlay Migration | [FBE-83] | The INTEL-FS Spiral 1 Overlays Migration Service shall transform the extracted overlays into a format that is compliant with the OData REST API implemented by the Overlay Service and load the transformed overlays into the I2BE through the Overlay Service. | - |
| 1.14.1.3 | IFS1 Overlay Migration | [FBE-84] | The INTEL-FS Spiral 1 Overlays Migration Service shall identify associations to other IIEs in the extracted overlays and transform those associations into a format that is compliant with the OData REST API implemented by the IIE to IIE Association Service and load the transformed IIE associations into the I2BE through the IIE to IIE Association Service. | - |
| 1.14.1.4 | IFS1 Overlay Migration | [FBE-85] | Using this ETL process, it shall be possible to migrate all overlays, without any data loss, from INTEL-FS Spiral 1 into the I2BE. | - |
| **1.15** | **IRM Svc** | **3.1.15** | **Intelligence Requirements Management (IRM) Service** | **-** |
| *1.15.1* | *IRM Svc* | *3.1.15.1* | *API* | - |
| 1.15.1.1 | IRM Svc | [FBE-86] | The IRM Service shall through the OData REST API support all IIE access actions on IRM data (for an authorized client). | - |
| 1.15.1.2 | IRM Svc | [FBE-87] | The IRM Service shall implement all the server-side functionality (i.e. anything not user-interface related) to fulfil the user stories [US 47], and [US 64] through [US 72] with backend-relevant acceptance criteria as defined in [INTEL-FS2-UserStories]. | - |
| 1.15.1.3 | IRM Svc | [FBE-88] | The IRM Service shall after a create, update or delete change to IRM data, post an event message to the SOA & IdM Platform as a notification that a change has occurred where the event message carry information on the type of IIE, identification of the changed IIE, and the type of change. | - |
| 1.15.1.4 | IRM Svc | [FBE-89] | The IRM Service API shall enable clients to manage a distributed RFI process (through the underlying choreography tasking message mechanism) that includes starting and stopping a request, forwarding the request to other ONs for action (or for information), etc. | - |
| **1.16** | **IFS1 IRM Migration** | **3.1.16** | **Intel-FS Spiral 1 IRM Data Migration Service** | **-** |

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| *1.16.1* | *IFS1 IRM Migration* | *3.1.16.1* | *Extract, transform, load IRM data* | - |
| 1.16.1.1 | IFS1 IRM Migration | [FBE-90] | The INTEL-FS Spiral 1 IRM Data Migration Service shall at regular intervals (where the interval frequency shall be configurable), poll the INTEL-FS Spiral 1 for new IRM data. It shall be possible through a configurable filter setting to filter the target data that are extracted from INTEL-FS Spiral 1. | - |
| 1.16.1.2 | IFS1 IRM Migration | [FBE-91] | The INTEL-FS Spiral1 IRM Data Migration Service shall transform the extracted IRM data into a format that is compliant with the OData REST API implemented by the IRM Service and load the transformed IRM data into the I2BE through the IRM Service. | - |
| 1.16.1.3 | IFS1 IRM Migration | [FBE-92] | The INTEL-FS Spiral1 IRM Data Migration Service shall identify associations to other IIEs in the extracted target data and transform those associations into a format that is compliant with the OData REST API implemented by the IIE to IIE Association Service and load the transformed IIE associations into the I2BE through the IIE to IIE Association Service. | - |
| 1.16.1.4 | IFS1 IRM Migration | [FBE-93] | Using this ETL process, it shall be possible to migrate all IRM information (i.e. ICPs, indicators, RFIs, and RFI Responses), without any data loss, from INTEL-FS Spiral 1 into the I2BE. | - |
| **1.17** | **Search Svc** | **3.1.17** | **Search Service** | - |
| *1.17.1* | *Search Svc* | *3.1.17.1* | *API* | - |
| 1.17.1.1 | Search Svc | [FBE-94] | The Search Service shall implement all the server-side functionality (i.e. anything not user-interface related) to fulfil the user stories [US 8], [US 48], [US 49], and [US 50] with backend-relevant acceptance criteria as defined in [INTEL-FS2-UserStories]. | - |
| 1.17.1. | Search Svc | [FBE-95] | The Search Service shall expose its functionalities though a REST API. | - |
| 1.17.1.3 | Search Svc | [FBE-96] | The Search Service shall have support for saving and managing (create, read, update, delete, rename) search criteria as named searches. The named searches can be private to the client (security principal) or public (available to all users). | - |
| 1.17.1.4 | Search Svc | [FBE-97] | The Search Service shall constrain the search result set to match the policy for the particular client's (security principal) privileges (i.e. the client shall never receive search results that he/ she is not authorized to access). | - |
| *1.17.2* | *Search Svc* | *3.1.17.2* | *Searchable data* | - |
| 1.17.2. | Search Svc | [FBE-98] | The Search Service shall support searching against all metadata attributes and on all IIE types. | - |
| 1.17.2.2 | Search Svc | [FBE-99] | The Search Service shall index and support full-text searches against all products files, all IIE attachments of textual type and all IIE metadata including inner objects and BSO status reports and choreography task messages (CTM). | - |
| 1.17.2.3 | Search Svc | [FBE-100] | The Search Service shall support searches against soft-deleted data and IIEs in different workflow state (see PublishedStatusType in [INTEL-FS2-IM]). | - |
| 1.17.2.4 | Search Svc | [FBE-101] | The Search Service shall never return search results for hard-deleted IIEs (this may require search re-indexing whenever an IIE is hard-deleted). | - |
| *1.17.3* | *Search Svc* | *3.1.17.3* | *Search engine* | - |
| 1.17.3.1 | Search Svc | [FBE-102] | The Search Service shall support matching against strings as exact matches, and as pattern matches (using wildcards and a "LIKE operator"). | - |
| 1.17.3.2 | Search Svc | [FBE-103] | The Search Service shall support fuzzy matches (e.g. using the Levenshtein distance, and/ or the Soundex algorithm, and/ or Metaphone algorithm). | - |
| 1.17.3.3 | Search Svc | [FBE-104] | The Search Service shall support the NEAR (proximity) operator with client specified maximum distance between search tokens. | - |
| 1.17.3.4 | Search Svc | [FBE-105] | The Search Service shall support logical operators ('AND', 'OR', 'NOT' including grouping of logical expressions using parenthesis). | - |
| 1.17.3.5 | Search Svc | [FBE-106] | The Search Service shall support numerical equality test, greater than and smaller than tests, and timestamp tests (earlier than, within time window, later than). | - |
| 1.17.3. | Search Svc | [FBE-107] | The Search Service shall have support for geospatial searches. | - |
| 1.17.3.7 | Search Svc | [FBE-108] | The Search Service shall support geospatial coverage queries with standard geospatial primitives and operators including testing for a point being inside or outside an area (ellipse, rectangle, polygon, etc.) | - |
| 1.17.3.8 | Search Svc | [FBE-109] | The Search Service shall support client applications in implementing facetted search based on classifications derived from the [INTEL-FS2-IM]. | - |
| 1.17.3.9 | Search Svc | [FBE-110] | The Search Service shall implement document clustering based on content of attachment and IIE metadata. The Search Engine shall have support for grouping the search results into different categories. | - |
| 1.17.3.10 | Search Svc | [FBE-111] | The Search Service shall have support for synonym searches using configurable synonym rules (preferably using search-time synonym analysis). | - |
| 1.17.3.11 | Search Svc | [FBE-112] | The Search Service shall have support for returning search results as metadata and also text-snippets where the search token was found where the search token is tagged (to enable the client application to highlight the token in context of the document fragment it was found). | - |
| **1.18** | **Named Collection Svc** | **3.1.18** | **Named Collections Service** | - |

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| *1.18.1* | *Named Collection Svc* | *3.1.18.1* | *API* | - |
| 1.18.1.1 | Named Collection Svc | [FBE-113] | The Named Collections Service shall through the OData REST API enable clients to group IIEs together as named collections where such named collections can be created, updated, and deleted (as required by for instance the user story [US 58]). | - |
| 1.18.1. | Named Collection Svc | [FBE-114] | The Named Collections Service shall have support private named collections and shared public collections. | - |
| **1.19** | **Notification Svc** | **3.1.19** | **Notification Service** | - |
| *1.19.1* | *Notification Svc* | *3.1.19.1* | *API requirements* | - |
| 1.19.1.1 | Notification Svc | [FBE-115] | The Notification Service shall implement server-side functionality (i.e. anything not user-interface related) to fulfil the user stories [US 9], [US 12], and [US 14] with backend-relevant acceptance criteria as defined in [INTEL-FS2-UserStories]. | - |
| 1.19.1.2 | Notification Svc | [FBE-116] | The Notification Service shall enable clients to register subscriptions in the form of a search criteria with the identification of the subscriber, a subscription channel/ queue on the SOA & IdM Platform, and a subscription identifier/ tag. The Notification Service shall dynamically detect when the search criteria is fulfilled, and send the search result on the specified subscription channel with the subscription identifier/ tag and the subscriber identification. | - |
| 1.19.1.3 | Notification Svc | [FBE-117] | The Notification Service shall enable clients to register subscriptions in the form of a search criteria with the identification of the subscriber, an email address, and a subscription identifier/ tag. The Notification Service shall dynamically detect when the search criteria is fulfilled, and send the search result by email to the specified recipient with the subscription identifier/ tag. | - |
| 1.19.1. | Notification Svc | [FBE-118] | The Notification Service shall enable clients to delete/ de-register subscriptions. | - |
| 1.19.1.5 | Notification Svc | [FBE-119] | The Notification Service shall include a broadcast message function enabling (authorized) clients to push broadcast messages to all clients of the I2BE. | - |
| **2** | | **3.2** | **Backend services - Phase 2** | - |
| **2.1** | **I2BE Sync Svc** | **3.2.1** | **IIE to IIE Synchronization Service** | - |
| *2.1.1* | *I2BE Sync Svc* | *3.2.1.1* | *General synchronization requirements* | - |
| 2.1.1.1 | I2BE Sync Svc | [FBE-120] | The I2BE to I2BE Synchronization Service shall exchange data between I2BE instances so that each I2BE instance has the same replica. | - |
| 2.1.1.2 | I2BE Sync Svc | [FBE-121] | It shall be possible, through configuration settings, to filter the type of data to be synchronized between I2BE instances (by IIE type, releasability/ dissemination constraints, location and time of information, etc.) and it shall be possible to constrain product files and attachment files that can be synchronized (typically by defining a maximum file size). | - |
| 2.1.1.3 | I2BE Sync Svc | [FBE-122] | The I2BE to I2BE Synchronization Service shall implement checks preventing circular replication situations (avoiding using unnecessary bandwidth), and it shall prevent creating duplicate entries in the repositories. | - |
| 2.1.1.4 | I2BE Sync Svc | [FBE-123] | The I2BE to I2BE Synchronization Service shall log information about data transferred between I2BE instances enabling full audit trail of dissemination of I2BE data. | - |
| *2.1.2* | *I2BE Sync Svc* | *3.2.1.2* | *Direct synchronization* | - |
| 2.1.2.1 | I2BE Sync Svc | [FBE-124] | The I2BE to I2BE Synchronization Service shall support different synchronization configurations including point-to-point, one-to many, many-to-one, many-to-many transfers. | - |
| 2.1.2.2 | I2BE Sync Svc | [FBE-125] | The synchronization service shall work over high-speed/ low-latency networks as well as over high latency SATCOM links where the latter may need special Transmission Control Protocol (TCP) tuning. | - |
| 2.1.2.3 | I2BE Sync Svc | [FBE-126] | The I2BE to I2BE Synchronization Service shall be able to handle cases where one of the I2BE instances is offline for a long period of time. The synchronization function shall identify the correct resume-point so that synchronicity can be achieved once the offline I2BE comes online. An example of a paused/ resumed synchronization could be when an I2BE instance is running on a ship with no network connection. | - |
| *2.1.3* | *I2BE Sync Svc* | *3.2.1.3* | *Air-gapped synchronization* | - |
| 2.1.3.1 | I2BE Sync Svc | [FBE-127] | The I2BE to I2BE Synchronization Service shall support air-gapped import/ export through configurable export “drop point” and import “pull point”. The exporting I2BE shall in this case keep track of what has previously been exported to the receiving I2BE such that each incremental export only contains previously un-exported data. | - |
| 2.1.3.2 | I2BE Sync Svc | [FBE-128] | The data that is exchanged through the synchronization shall be wrapped in an “electronic envelope” that contains metadata on the data set to be synchronized. The envelop metadata attributes shall include the highest security classification and the most restrictive releasabilty constraint of the data within the data set. | - |
| **2.2** | **Presentation Svc** | **3.2.2** | **Presentation-conditioning Service** | - |
| *2.2.1* | *Presentation Svc* | *3.2.2.1* | *API* | - |
| 2.2.1.1 | Presentation Svc | [FBE-129] | The Presentation-conditioning Service shall implement all the server-side functionality (i.e. anything not user-interface related) to fulfil the user stories [US 51] with backend-relevant acceptance criteria as defined in [INTEL-FS2-UserStories]. | - |

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| 2.2.1.2 | Presentation Svc | [FBE-130] | The Presentation-conditioning Service shall implement a function that - upon a client request - extracts the images and the associated metadata from STANAG 4545 files and return to the client the images in a browser-supported format (e.g. JPEG) and all the image metadata (in XML format). This functionality shall be available through a REST API. | - |
| 2.2.1.3 | Presentation Svc | [FBE-131] | The Presentation-conditioning Service shall include (see Note below) a video conditioning service that implements Dynamic Adaptive Streaming over HTTP (DASH), i.e. MPEG-DASH (ISO/IEC 23009-1:2012) for streaming video and STANAG 4609 metadata to web browser client applications. | - |
| **2.3** | **Data Analytics Svc** | **3.2.3** | **Data Analytics Service** | **-** |
| *2.3.1* | *Data Analytics Svc* | *3.2.3.1* | *API* | - |
| 2.3.1.1 | Data Analytics Svc | [FBE-132] | The Data Analytics Service shall implement all the server-side functionality (i.e. anything not user-interface related) to fulfil the user stories [US 53], [US 54], [US 56] and [US 57] with backend-relevant acceptance criteria as defined in [INTEL-FS2-UserStories]. | - |
| 2.3.1.2 | Data Analytics Svc | [FBE-133] | The Data Analytics Service shall expose its functionalities though a REST API. | - |
| 2.3.1.3 | Data Analytics Svc | [FBE-134] | The Data Analytics Service shall support common graph analytic functions by exposing a graph query language (preferably compliant with the emerging Graph Query Language (GQL) standard) through the REST API. | - |
| 2.3.1.4 | Data Analytics Svc | [FBE-135] | The Data Analytics Service shall have support for saving and managing (create, read, update, delete, rename) graph query criteria as named queries. The named graph queries can be private to the client (security principal) or public (available to all users). | - |
| 2.3.1.5 | Data Analytics Svc | [FBE-136] | The Data Analytics Service shall have support for saving and managing (create, read, update, delete, rename) specific analysis and the analysis results in containers file (e.g. zip file). The analysis file shall be able to store the queries and filters applied to the I2BE repository to define and constrain the data set to be used for the analysis, miscellaneous text segments/ reports (e.g. as Microsoft Word file) describing analysis findings, images/ screenshots, and other client requested files (e.g. layout information for analysis views). The analysis files shall be private to the client (security principal). | - |
| 2.3.1.6 | Data Analytics Svc | [FBE-137] | The Data Analytics Service shall constrain the graph query result set to match the client's (security principal) privileges (e.g. the client shall never receive a graph query results that he/ she is not authorized for). | - |
| *2.3.2* | *Data Analytics Svc* | *3.2.3.2* | *Data analytics* | - |
| 2.3.2.1 | Data Analytics Svc | [FBE-138] | The Data Analytics Service shall have support for synonym searches using configurable synonym rules. | - |
| 2.3.2.2 | Data Analytics Svc | [FBE-139] | The Data Analytics Service shall include centrality function, for a specified set of nodes (IIEs), to support calculation of Betweeness Centrality, Closeness Centrality, Degree Centrality, and Eigenvector Centrality. | - |
| 2.3.2.3 | Data Analytics Svc | [FBE-140] | The Data Analytics Service shall include a shortest path function that for two nodes (IIEs) calculate the shortest path between them. | - |
| 2.3.2.4 | Data Analytics Svc | [FBE-141] | The Data Analytics Service shall include a nodes similarity function that compares a set of nodes based on the nodes they are connected to (i.e. two nodes are considered similar if they share many of the same neighbours). | - |
| 2.3.2.5 | Data Analytics Svc | [FBE-142] | The Data Analytics Service shall include a function for generating geo-referenced heat maps in a common format (e.g. in KML). The heat maps generation shall be possible for any IIE type with temporal and spatial attributes. Two types of heat maps shall be supported: frequency-based and concentration-based. | - |
| 2.3.2.6 | Data Analytics Svc | [FBE-143] | The Data Analytics Service shall have support for calculating intersections between one or many nodes and one or many Geospatial and Features and report whether nodes are inside or outside the specified areas. Supported area types shall include circles/ ellipse, rectangles, and polygons. | - |
| **2.4** | **CRM Svc** | **3.2.4** | **Collection Requirement Management (CRM) Service** | **-** |
| *2.4.1* | *CRM Svc* | *3.2.4.1* | *API* | - |
| 2.4.1.1 | CRM Svc | [FBE-144] | The CRM Service shall through the OData REST API support all IIE access actions on CRM data (for an authorized client). | - |
| 2.4.1.2 | CRM Svc | [FBE-145] | The CRM Service shall implement all the server-side functionality (i.e. anything not user-interface related) to fulfil the user stories [US 47], and [US 74] through [US 79] with backend-relevant acceptance criteria as defined in [INTEL-FS2-UserStories]. | - |
| 2.4.1.3 | CRM Svc | [FBE-146] | The CRM Service shall after a create, update or delete change to CRM data, post an event message to the SOA & IdM Platform as a notification that a change has occurred where the event message carry information on the type of IIE, identification of the changed IIE, and the type of change. | - |
| 2.4.1.4 | CRM Svc | [FBE-147] | The CRM Service API shall enable clients to manage a distributed CR requesting process (through the underlying choreography tasking message mechanism) that includes submitting and stopping a request, forwarding the request to other ONs for action (or for information), etc. | - |
| *2.4.2* | *CRM Svc* | *3.2.4.2* | *Priority scheme calculation* | - |
| 2.4.2.1 | CRM Svc | [FBE-148] | The CRM Service shall calculate the requirement ranking and scores for a set of CRs based on the chosen prioritization scheme. The ranking and score shall be available for clients through the OData client API. | - |
| *2.4.3* | *CRM Svc* | *3.2.4.3* | *Transformation of CRs to NVG* | - |

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| 2.4.3.1 | CRM Svc | [FBE-149] | The CRM Services shall, upon a client request, transform a set of client specified CRs, transform the set of CRs with all relevant attributes to the [NVG] format and return the transformed data as a [NVG] file to the client. | - |
| **2.5** | **COM Svc** | **3.2.5** | **Collection Operations Management (COM) Service** | **-** |
| *2.5.1* | *COM Svc* | *3.2.5* | *API* | - |
| 2.5.1.1 | COM Svc | [FBE-150] | The COM Service shall through the OData REST API support all IIE access actions on COM data (for an authorized client). | - |
| 2.5.1.2 | COM Svc | [FBE-151] | The COM Service shall implement all the server-side functionality (i.e. anything not user-interface related) to fulfil the user stories [US 82] through [US 87] with backend-relevant acceptance criteria as defined in [INTEL-FS2-UserStories]. | - |
| 2.5.1.3 | COM Svc | [FBE-152] | The COM Service shall after a create, update or delete change to COM data, post an event message to the SOA & IdM Platform as a notification that a change has occurred where the event message carry information on the type of IIE, identification of the changed IIE, and the type of change. | - |
| 2.5.1.4 | COM Svc | [FBE-153] | The COM Service API shall enable clients to manage a distributed COM tasking process (through the underlying choreography tasking message mechanism). | - |
| **2.6** | **JIPOE Svc** | **3.2.6** | **JIPOE Service** | **-** |
| *2.6.1* | *JIPOE Svc* | *3.2.6.1* | *API* | - |
| 2.6.1.1 | JIPOE Svc | [FBE-154] | The JIPOE Service shall through the OData REST API support all access actions on JIPOE-type IIEs (for an authorized client). | - |
| 2.6.1.1 | JIPOE Svc | [FBE-155] | The JIPOE Service shall implement all the server-side functionality (i.e. anything not user-interface related) to fulfil the user stories [US-36] through [US-46] with backend-relevant acceptance criteria as defined in [INTEL-FS2-UserStories]. | - |
| 2.6.1.1 | JIPOE Svc | [FBE-156] | The JIPOE Service shall after a create, update or delete change to any JIPOE-type IIE, post an event message to the SOA & IdM Platform as a notification that a change has occurred where the event message carry information on the type of IIE, identification of the changed IIE, and the type of change. | - |
| 2.6.1.1 | JIPOE Svc | [FBE-157] | The JIPOE services shall provide a service for creating and managing (update and delete) named multi-criteria comparison rule sets. | - |
| **2.7** | **Terrain & Mobility Svc** | **3.2.7** | **Terrain & Mobility Analysis Service** | **-** |
| *2.7.1* | *Terrain & Mobility Svc* | *3.2.7.1* | *Generating terrain & mobility analysis overlays* | - |
| 2.7.1.1 | Terrain & Mobility Svc | [FBE-158] | The Terrain & Mobility Analysis Service shall implement a Terrain Analysis function that upon a client request generates one or several overlays that depicts the areas where BM Units can reach and from which BM Units can operate. The service shall use the input parameters as defined in the table below and matching against geographical data calculate the possible operational areas (e.g. by greying out the no-go areas). | - |
| 2.7.1.1 | Terrain & Mobility Svc | [FBE-159] | The Service shall implement a Mobility Analysis function that upon a client request generates one or several overlays that depicts how far the BM Units can reach for a set of time intervals (e.g. within 1 hour, within 1 day, within a week etc.) as illustrated in the figure below (in this example the ranges are in minutes). The function shall use the input parameters as defined in the table below and matching against geographical data calculate the mobility ranges. The coloured range areas shall only depict areas that is accessible by the vehicles from the starting position (e.g. if a bridge is not dimensioned to support the vehicles, the mobility analysis shall show that the vehicles cannot cross the bridge). | - |
| 2.7.1.1 | Terrain & Mobility Svc | [FBE-160] | The Service shall be implemented as OGC Web Processing Services (WPS). | - |
| 2.7.1.1 | Terrain & Mobility Svc | [FBE-161] | The JIPOE services shall support collaboration on Courses of Action artefacts prior to these being approved and published. | - |
| **3** | | **3.3** | **System Administration (SysAdm) tool** | **-** |
| **3.1** | **SysAdm Tool** | **3.3.1** | **Configurations and setup management functions** | **-** |
| *3.1.1* | *SysAdm Tool* | *3.3.1.1* | *Manage data repositories* | - |
| 3.1.1.1 | SysAdm Tool | [FBE-162] | The SysAdm tool shall enable an Authorized Administrator to create many data repositories where each repository is identified by a name (e.g., 'Exercise XYZ')). | - |
| 3.1.1.2 | SysAdm Tool | [FBE-163] | The SysAdm tool shall enable an Authorized Administrator to archive a data repository, be able to restore a previously archived data repository (without any data loss or data alteration), and be able to delete a data repository. | - |
| *3.1.2* | *SysAdm Tool* | *3.3.1.2* | *Manage Organizational Nodes (ON)* | - |
| 3.1.2.1 | SysAdm Tool | [FBE-164] | The SysAdm tool shall enable an Authorized Administrator to create ONs and to configure the ON Zulu offset to ensure that timestamps are correctly captured at the ON. | - |
| *3.1.3* | *SysAdm Tool* | *3.3.1.3* | *Manage report templates* | - |
| 3.1.3.1 | SysAdm Tool | [FBE-165] | The SysAdm tool shall enable an Authorized Administrator to create and update report templates to provide users with templates for producing reports. | - |

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| 3.1.3.1 | SysAdm Tool | [FBE-166] | The SysAdm tool shall enable an Authorized Administrator to create, update, delete, and name global search criteria that will be accessible to users to use for their searches. | - |
| *3.1.4* | *SysAdm Tool* | *3.3.1.4* | *Manage synonym rules* | - |
| 3.1.4.1 | SysAdm Tool | [FBE-167] | The SysAdm tool shall enable an Authorized Administrator to update synonym rules used for searching and graph querying. | - |
| *3.1.5* | *SysAdm Tool* | *3.3.1.5* | *Manage gazetteers* | - |
| 3.1.5.1 | SysAdm Tool | [FBE-168] | The SysAdm tool shall enable an Authorized Administrator to add or delete a gazetteer for an ON, and to specify the default gazetteer for the ON. | - |
| 3.1.5.2 | SysAdm Tool | [FBE-169] | The SysAdm tool shall enable an Authorized Administrator to create, edit and maintain gazetteer information, including maintaining gazetteer entries (i.e. Place Name, Country, Region, Sub-region, Location). | - |
| 3.1.5.3 | SysAdm Tool | [FBE-170] | The SysAdm tool shall enable an Authorized Administrator to import a gazetteer from a file. | - |
| 3.1.5.4 | SysAdm Tool | [FBE-171] | The SysAdm tool shall enable an Authorized Administrator to configure the I2BE to use gazetteer with fictitious nation data sets, including fictitious country names and fictitious country codes. | - |
| **3.2** | **SysAdm Tool** | **3.3.2** | **Domain-values management functions** | - |
| *3.2.1* | *SysAdm Tool* | *3.3.2.1* | *Create/ update domain values* | - |
| 3.2.1.1 | SysAdm Tool | [FBE-172] | The SysAdm tool shall enable an Authorized Administrator to centrally manage domain tables and domain values for all ONs. This includes the ability to create new domain values, and configuring which domain values that shall be hidden/ unhidden for individual ONs. | - |
| 3.2.1.1 | SysAdm Tool | [FBE-173] | The SysAdm tool shall enable an Authorized Administrator to view all domain values in table views where the hidden/ unhidden state of each value for each of the ONs are displayed. The Authorized Administrator shall be able to sort and filter these table views, and be able to make changes to one or many values in the table in a single operation. | - |
| 3.2.1.1 | SysAdm Tool | [FBE-174] | The SysAdm tool shall enable an Authorized Administrator or Authorized Reference Data Manager to search for and filter domain values to ease the maintenance work (find and update). | - |
| *3.2.2* | *SysAdm Tool* | *3.3.2.2* | *Import/ export of domain values* | - |
| 3.2.2.1 | SysAdm Tool | [FBE-175] | The SysAdm tool shall enable an Authorized Administrator to import domain values from files in a structured file format and export domain values to files in structured file formats. | - |
| *3.2.3* | *SysAdm Tool* | *3.3.2.3* | *Synchronization with Information Model* | - |
| 3.2.3.1 | SysAdm Tool | [FBE-176] | The SysAdm tool shall have support for synchronizing updates to the domain tables and domain values with the Information Model (see [INTEL-FS2-IM]). | - |
| **3.3** | **SysAdm Tool** | **3.3.3** | **Content management functions** | - |
| *3.3.1* | *SysAdm Tool* | *3.3.3.1* | *Import from files* | - |
| 3.3.1.1 | SysAdm Tool | [FBE-177] | The SysAdm tool shall enable an Authorized Administrator to import an ORBAT (e.g. an ISR ORBAT) consisting of Actors and Assets/ Systems with subordination information from a set of comma separated files (CSV), XML or JSON, into a specified data set (Operational Exercise, Training, etc.). The tool shall allow the System Administrator to map columns in the files to the appropriate IIE attribute and automatically extract the BSOs representing Units, the Assets/ Systems, and extract the relationships between the BSOs. Ultimately, the tool shall allow the System Administrator to verify that there is no conflict with the information already in the I2BE data set and subsequently "bulk import" the entire ORBAT and associated Units and Assets/ Systems. In case the validation of the data prior to import finds issue with the data, then the issues shall be identified and reported to the System Administrator to enable corrective actions. | - |
| 3.3.1.2 | SysAdm Tool | [FBE-178] | The SysAdm tool shall enable an Authorized Administrator to import BSO data, including relationships between the BSOs, and all BSRs associated with the BSOs from files in a structured data format into a specified data set (Operational Exercise, Training, etc.) The tool shall allow the System Administrator to map elements in the files to the appropriate IIE attribute and automatically extract the BSOs, their BSRs, and the relationships between the BSOs. Ultimately, the tool shall allow the System Administrator to verify that there is no conflict with the information already in the I2BE data set and subsequently "bulk import" all the BSOs with BSRs and also BSO-BSO relationships. In case the validation of the data prior to import finds issue with the data, then the issues shall be identified and reported to the System Administrator to enable corrective actions. | - |
| 3.3.1.3 | SysAdm Tool | [FBE-179] | The SysAdm tool shall enable an Authorized Administrator to import Products from comma separated files (CSV), XML or JSON, into a specified data set (Operational Exercise, Training, etc.). The tool shall allow the System Administrator to map columns in the files to the appropriate IIE attribute and automatically extract the Product. Ultimately the tool shall allow the System Administrator to verify that there is no conflict with the information already in the I2BE data set and subsequently "bulk import" a potentially large set of Products where also the Product attachments are fetched and pushed into the I2BE data set. In case the validation of the data prior to import finds issue with the data, then the issues shall be identified and reported to the System Administrator to enable corrective actions. | - |

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| 3.3.1.4 | SysAdm Tool | [FBE-180] | The SysAdm tool shall include an “undo function” that restores the data repository to the state before the bulk upload was executed (i.e. completely removes all the bulk-uploaded items). | - |
| *3.3.2* | *SysAdm Tool* | *3.3.3.2* | *Delete and undelete* | - |
| 3.3.2.1 | SysAdm Tool | [FBE-181] | The SysAdm tool shall enable an Authorized Administrator to search and filter for soft-deleted entities, and then multi-select and hard-delete (permanently delete) such soft-deleted entities. | - |
| *3.3.3* | *SysAdm Tool* | *3.3.3.3* | *Backup & restore* | - |
| 3.3.3.1 | SysAdm Tool | [FBE-182] | The SysAdm tool shall enable an Authorized Administrator to configure automatic backup of the entirety of an I2BE instance. It shall be possible to configure the frequency of and/ or time of day incremental backups and full backups. | - |
| 3.3.3.2 | SysAdm Tool | [FBE-183] | The SysAdm tool shall enable an Authorized Administrator to manually command an incremental backup, and to manually command a full backup. | - |
| 3.3.3.3 | SysAdm Tool | [FBE-184] | The SysAdm tool shall enable an Authorized Administrator to fully restore an I2BE instance from backups. | - |
| **3.4** | **SysAdm Tool** | **3.3.4** | **Diagnostics functions** | - |
| *3.4.1* | *SysAdm Tool* | *3.3.4.1* | *Log files* | - |
| 3.4.1.1 | SysAdm Tool | [FBE-185] | The SysAdm tool shall enable an Authorized Administrator to access log created by all I2BE produced Integration Services. (Note: This is particularly important for the audit trail checks of cross domain exchange between I2BE instances). | - |
| 3.4.1.2 | SysAdm Tool | [FBE-186] | The SysAdm tool shall enable the System Administrator to access and inspect/ analyse log data from all the I2BE services. | - |
| 3.4.1.3 | SysAdm Tool | [FBE-187] | The SysAdm tool shall enable an Authorized Administrator to configure the services logging functions (e.g. logging level, log file sizes, log file retention, etc.) | - |
| 3.4.1.4 | SysAdm Tool | [FBE-188] | The SysAdm tool shall enable an Authorized Administrator to archive log files from each of the I2BE services and I2BE provided Integration Services. | - |
| *3.4.2* | *SysAdm Tool* | *3.3.4.2* | *Usage and performance indicators statistics* | - |
| 3.4.2.1 | SysAdm Tool | [FBE-189] | The SysAdm tool shall enable an Authorized Administrator to analyse the usage of the I2BE services OData API by accessing usage statistics; e.g. which part of the API is heavily used, which parts are not used much, usage peaks, average number of activation calls, historical trends, etc. The statistical numbers must be separable by access operations (Create, Read, Update, and Delete) and by ONs. | - |
| 3.4.2.1 | SysAdm Tool | [FBE-190] | The SysAdm tool shall enable an Authorized Administrator to analyse the performance of the individual I2BE services. In particular statistical data measuring the I2BE compliance with the NFR response time requirements shall be available for analysis through the SysAdm tool. | - |
| 3.4.2.1 | SysAdm Tool | [FBE-191] | The SysAdm tool shall enable an Authorized Administrator to specify relevant performance thresholds/ criteria for the services. I.e. thresholds that triggers corrective actions through the Enterprise SMC. | - |
| *3.4.3* | *SysAdm Tool* | *3.3.4.3* | *Synchronization health check* | - |
| 3.4.3.1 | SysAdm Tool | [FBE-192] | The SysAdm tool shall enable an Authorized Administrator to select any two I2BE instances and perform repository comparisons. It shall be possible check the entire repositories, and it shall be possible with more focussed comparisons limited by IIE type, time window, and other IIE filtering attributes. Any discrepancies in these checks shall be reported by the tool including the option to repair the discrepancy. | - |
| **3.5** | **SysAdm Tool** | **3.3.5** | **Notification function** | - |
| *3.5.1* | *SysAdm Tool* | *3.3.5.1* | *Broadcasting notification messages* | - |
| 3.5.1.1 | SysAdm Tool | [FBE-193] | The SysAdm tool shall enable an Authorized Administrator to write messages (intended to be read by users) and broadcast them using the I2BE Notification Service. | - |
| **4** | | **4.1** | **Integration services - I2BE destination** | - |
| **4.1** | **CCC Import** | **4.1.1** | **Central Card Catalogue (CCC) Import Service** | - |
| *4.1.1* | *CCC Import* | *4.1.1.1* | *Extract, transform, load products* | - |
| 4.1.1.1 | CCC Import | [FBE-194] | The CCC Import Service shall at regular intervals (where the interval frequency shall be configurable), poll the CCC for new products (i.e. product metadata, product file, and other attachments). It shall be possible through a configurable filter setting to filter the products that are extracted from the CCC. | - |
| 4.1.1.2 | CCC Import | [FBE-195] | The CCC Import Service shall transform the extracted product metadata into a format that is compliant with the OData REST API implemented by the Products Management Service and load the products (i.e. the metadata, the product file, and any attachments) into the I2BE through the Products Management Service. | - |
| 4.1.1.3 | CCC Import | [FBE-196] | The CCC Import Service shall identify associations the extracted products are part of, collect additional information on these associations, and transform those associations into a format that is compliant with the OData REST API implemented by the IIE to IIE Association Service and load the transformed IIE associations into the I2BE through the IIE to IIE Association Service. | - |
| *4.1.2* | *CCC Import* | *4.1.1.2* | *Extract, transform, load RFI data* | - |

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| 4.1.2.1 | CCC Import | [FBE-197] | The CCC Import Service shall at regular intervals (where the interval frequency shall be configurable), poll the CCC for new RFI data. It shall be possible through a configurable filter setting to filter the RFI data that are extracted from CCC. | - |
| 4.1.2.2 | CCC Import | [FBE-198] | The CCC Import Service shall transform the extracted RFI data into a format that is compliant with the OData REST API implemented by the IRM Service and load the transformed RFI data into the I2BE through the IRM Service. | - |
| 4.1.2.3 | CCC Import | [FBE-199] | The Import Service shall identify associations the extracted RFI data are part of, collect additional information on these associations, and transform those associations into a format that is compliant with the OData REST API implemented by the IIE to IIE Association Service and load the transformed IIE associations into the I2BE through the IIE to IIE Association Service. | - |
| **4.2** | **ETEE Import** | **4.1.2** | **ETEE Import Service** | - |
| *4.2.1* | *ETEE Import* | *4.1.2.1* | *Extract, transform, load products from ETEE messages* | - |
| 4.1.2.1 | ETEE Import | [FBE-200] | The ETEE Import Service shall when receiving a ETEE message (dedicated for INTEL-FS), transform (if required) the information in the message into a format that is compliant with the OData REST API implemented by the Products Management Service and load the transformed products into the I2BE through the Products Management Service. | - |
| **4.3** | **CIPL Import** | **4.1.3** | **NATO CSD IPL Import Service** | - |
| *4.3.1* | *CIPL Import* | *4.1.3.1* | *Extract, transform, load products* | - |
| 4.3.1.1 | CIPL Import | [FBE-201] | The NATO CSD IPL Import Service shall at regular intervals (where the interval frequency shall be configurable), poll the NATO CSD IPL for products or product updates that are not already in the I2BE. It shall be possible through a configurable filter setting to filter the products to be extracted from NATO CSD IPL. Note: in this context 'product' means the product metadata, product file, and all attachments (e.g. related files). | - |
| 4.3.1.2 | CIPL Import | [FBE-202] | The NATO CSD IPL Import Service shall transform the extracted product metadata into a format that is compliant with the OData REST API implemented by the Products Management Service and load the products (i.e. the metadata, the product file, and any attachments) into the I2BE through the Products Management Service. | - |
| 4.3.1.3 | CIPL Import | [FBE-203] | The NATO CSD IPL Import Service shall identify associations the extracted products are part of, collect additional information on these associations, and transform those associations into a format that is compliant with the OData REST API implemented by the IIE to IIE Association Service and load the transformed IIE associations into the I2BE through the IIE to IIE Association Service. | - |
| **4.4** | **CIWS Geo-Area Import** | **4.1.4** | **NATO CSD Geospatial and Features Import Service** | - |
| *4.4.* | *CIWS Geo-Area Import* | *4.1.4.1* | *Extract, transform, load geographical areas* | - |
| 4.4.1.1 | CIWS Geo-Area Import | [FBE-204] | The NATO CSD Geospatial and Features Import shall be configurable so that it can be connected to multiple NATO CSD servers where each NATO CSD server contains a specific data set representing either OPERATIONAL, EXERCISE, or TRAINING data. Through the ETL process the NATO CSD Geospatial and Features Import Service shall load the transformed NATO CSD data into the corresponding data set {OPERATIONAL, EXERCISE, or TRAINING} in the I2BE. | - |
| 4.4.1.2 | CIWS Geo-Area Import | [FBE-205] | The NATO CSD Geospatial and Features Import Service shall be able to extract Geospatial and Features from the NATO CSD by polling the NATO CSD at regular intervals (where the interval frequency shall be configurable). | - |
| 4.4.1.3 | CIWS Geo-Area Import | [FBE-206] | The NATO CSD Geospatial and Features Import Service shall implement WS-Notification (see [AI 06.02.08] and [AI 06.02.10]) subscriptions for changes to geographic areas of interest (GAOI) in the NATO CSD and upon detecting a GAOI changes, extract the Geospatial and Features from the NATO CSD. | - |
| 4.4.1.4 | CIWS Geo-Area Import | [FBE-207] | It shall be possible through a configurable filter setting, to filter the geographic areas that shall be extracted from NATO CSD. The service shall be able to detect Geospatial and Features updates originating from the I2BE and not import those (to prevent export-import loops). | - |
| 4.4.1.5 | CIWS Geo-Area Import | [FBE-208] | The NATO CSD Geospatial and Features Import Service shall transform the extracted geographic areas into a format that is compliant with the OData REST API implemented by the Geospatial and Features Service and load the transformed Geospatial and Features into the I2BE through the Geospatial and Features Service. | - |
| 4.4.1.6 | CIWS Geo-Area Import | [FBE-209] | The NATO CSD Geospatial and Features Service shall identify associations the extracted geographic areas are part of, extract additional information on these associations, and transform those associations into a format that is compliant with the OData REST API implemented by the IIE to IIE Association Service and load the transformed IIE associations into the I2BE through the IIE to IIE Association Service. | - |
| **4.5** | **CIWS ISR-Org. Import** | **4.1.5** | **NATO CSD ISR Organizations Import Service** | - |
| *4.5.1* | *CIWS ISR-Org. Import* | *4.1.5.1* | *Extract, transform, load ISR organizations* | - |

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| 4.5.1.1 | CIWS ISR-Org. Import | [FBE-210] | The NATO CSD Organizations Import shall be configurable so that it can be connected to multiple NATO CSD servers where each NATO CSD server contains a specific data set representing either OPERATIONAL, EXERCISE, or TRAINING data. Through the ETL process the NATO CSD Organizations Import Service shall load the transformed NATO CSD data into the corresponding data set {OPERATIONAL, EXERCISE, or TRAINING} in the I2BE. | - |
| 4.5.1.2 | CIWS ISR-Org. Import | [FBE-211] | The NATO CSD ISR Organizations Import Service shall be able to extract ISR organization data from the NATO CSD by polling the NATO CSD at regular intervals (where the interval frequency shall be configurable). | - |
| 4.5.1.3 | CIWS ISR-Org. Import | [FBE-212] | The NATO CSD ISR Organizations Import Service shall implement WS-Notification (see [AI 06.02.08] and [AI 06.02.10]) subscriptions for changes to ISR organizations in the NATO CSD and upon detecting ISR organization changes, extract the ISR organization data from the NATO CSD. | - |
| 4.5.1.4 | CIWS ISR-Org. Import | [FBE-213] | It shall be possible through a configurable filter setting, to filter the ISR organizations that shall be extracted from NATO CSD. The service shall be able to detect ISR organization data updates originating from the I2BE and not import that data (to prevent export-import loops). | - |
| 4.5.1.5 | CIWS ISR-Org. Import | [FBE-214] | The NATO CSD ISR Organizations Import Service shall transform the extracted ISR organization data (with all its substructures including ORBAT, units, ISR systems, ISR asset status, command relationships, and locations) into a format that is compliant with the OData REST API implemented by the ISR Organizations Service and load the transformed ISR organization data into the I2BE through the ISR Organizations Service. | - |
| 4.5.1.6 | CIWS ISR-Org. Import | [FBE-215] | The NATO CSD ISR Organizations Import Service shall identify associations the extracted ISR organization data are part of, extract additional information on these associations, and transform those associations into a format that is compliant with the OData REST API implemented by the IIE to IIE Association Service and load the transformed IIE associations into the I2BE through the IIE to IIE Association Service. | - |
| **4.6** | **CIWS IRM Import** | **4.1.6** | **NATO CSD IRM Data Import Service** | **-** |
| *4.6.1* | *CIWS IRM Import* | *4.1.6.1* | *Extract, transform, load IRM data* | - |
| 4.6.1.1 | CIWS IRM Import | [FBE-216] | The NATO CSD IRM Data Import shall be configurable so that it can be connected to multiple NATO CSD servers where each NATO CSD server contains a specific data set representing either OPERATIONAL, EXERCISE, or TRAINING data. Through the ETL process the NATO CSD IRM Data Import Service shall load the transformed NATO CSD data into the corresponding data set {OPERATIONAL, EXERCISE, or TRAINING} in the I2BE. | - |
| 4.6.1.2 | CIWS IRM Import | [FBE-217] | The NATO CSD IRM Import Service shall be able to extract IRM data (ICP, RFIs, RFI choreography tasking information, and products associated with requirements and RFIs) from the NATO CSD by polling the NATO CSD at regular intervals (where the interval frequency shall be configurable). | - |
| 4.6.1.3 | CIWS IRM Import | [FBE-218] | The NATO CSD IRM Import Service shall implement WS-Notification (see [AI 06.02.08] and [AI 06.02.10]) subscriptions for all types of changes to IRM data in the NATO CSD and upon detecting IRM data changes, extract the IRM data from the NATO CSD. | - |
| 4.6.1.4 | CIWS IRM Import | [FBE-219] | It shall be possible through a configurable filter setting, to filter the IRM data that shall be extracted from NATO CSD. The service shall be able to detect IRM data updates originating from the I2BE and not import that data (to prevent export-import loops). | - |
| 4.6.1.5 | CIWS IRM Import | [FBE-220] | The NATO CSD IRM Import Service shall transform the extracted IRM data into a format that is compliant with the OData REST API implemented by the IRM Service and load the transformed IRM data into the I2BE through the IRM Service. | - |
| 4.6.1.6 | CIWS IRM Import | [FBE-221] | The NATO CSD IRM Import Service shall identify associations the extracted IRM data are part of, extract additional information on these associations, and transform those associations into a format that is compliant with the OData REST API implemented by the IIE to IIE Association Service and load the transformed IIE associations into the I2BE through the IIE to IIE Association Service. | - |
| **4.7** | **CIWS CRM Import** | **4.1.7** | **NATO CSD CRM Data Import Service** | **-** |
| *4.7.1* | *CIWS CRM Import* | *4.1.7.1* | *Extract, transform, load CRM data* | - |
| 4.7.1.1 | CIWS CRM Import | [FBE-222] | The NATO CSD CRM Data Import shall be configurable so that it can be connected to multiple NATO CSD servers where each NATO CSD server contains a specific data set representing either OPERATIONAL, EXERCISE, or TRAINING data. Through the ETL process the NATO CSD CRM Data Import Service shall load the transformed NATO CSD data into the corresponding data set {OPERATIONAL, EXERCISE, or TRAINING} in the I2BE. | - |
| 4.7.1.2 | CIWS CRM Import | [FBE-223] | The NATO CSD CRM Import Service shall be able to extract CRM data (CRs, ISR Requests, and ISR Request choreography tasking information) from the NATO CSD by polling the NATO CSD at regular intervals (where the interval frequency shall be configurable). | - |
| 4.7.1.3 | CIWS CRM Import | [FBE-224] | The NATO CSD CRM Import Service shall implement WS-Notification (see [AI 06.02.08] and [AI 06.02.10]) subscriptions for all types of changes to CRM data in the NATO CSD and upon detecting CRM data changes, extract the CRM data from the NATO CSD. | - |

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| 4.7.1.4 | CIWS CRM Import | [FBE-225] | It shall be possible through a configurable filter setting, to filter the CRM data that shall be extracted from NATO CSD. The service shall be able to detect CRM data updates originating from the I2BE and not import that data (to prevent export-import loops). | - |
| 4.7.1.5 | CIWS CRM Import | [FBE-226] | The NATO CSD CRM Import Service shall transform the extracted CRM data into a format that is compliant with the OData REST API implemented by the CRM Service and load the transformed CRM data into the I2BE through the CRM Service. | - |
| 4.7.1.6 | CIWS CRM Import | [FBE-227] | The NATO CSD CRM Import Service shall identify associations the extracted CRM data are part of, extract additional information on these associations, and transform those associations into a format that is compliant with the OData REST API implemented by the IIE to IIE Association Service and load the transformed IIE associations into the I2BE through the IIE to IIE Association Service. | - |
| **4.8** | **CIWS COM Import** | **4.1.8** | **NATO CSD COM Data Import Service** | - |
| *4.8.1* | *CIWS COM Import* | *4.1.8.1* | *Extract, transform, load COM data* | - |
| 4.8.1.1 | CIWS COM Import | [FBE-228] | The NATO CSD COM Data Import shall be configurable so that it can be connected to multiple NATO CSD servers where each NATO CSD server contains a specific data set representing either OPERATIONAL, EXERCISE, or TRAINING data. Through the ETL process the NATO CSD COM Data Import Service shall load the transformed NATO CSD data into the corresponding data set {OPERATIONAL, EXERCISE, or TRAINING} in the I2BE. | - |
| 4.8.1.2 | CIWS COM Import | [FBE-229] | The NATO CSD COM Import Service shall be able to extract COM data (CXPs, collection tasks, exploitation tasks, and the choreography tasking information) from the NATO CSD by polling the NATO CSD at regular intervals (where the interval frequency shall be configurable). | - |
| 4.8.1.3 | CIWS COM Import | [FBE-230] | The NATO CSD COM Import Service shall implement WS-Notification (see [AI 06.02.08] and [AI 06.02.10]) subscriptions for all types of changes to COM data in the NATO CSD and upon detecting COM data changes, extract the COM data from the NATO CSD. | - |
| 4.8.1.4 | CIWS COM Import | [FBE-231] | It shall be possible through a configurable filter setting, to filter the COM data that shall be extracted from NATO CSD. The service shall be able to detect COM data updates originating from the I2BE and not import that data (to prevent export-import loops). | - |
| 4.8.1.5 | CIWS COM Import | [FBE-232] | The NATO CSD COM Import Service shall transform the extracted COM data into a format that is compliant with the OData REST API implemented by the COM Service and load the transformed COM data into the I2BE through the COM Service. | - |
| 4.8.1.6 | CIWS COM Import | [FBE-233] | The NATO CSD COM Import Service shall identify associations the extracted COM data are part of, extract additional information on these associations, and transform those associations into a format that is compliant with the OData REST API implemented by the IIE to IIE Association Service and load the transformed IIE associations into the I2BE through the IIE to IIE Association Service. | - |
| **4.9** | **APP11-D Report Import** | **4.1.9** | **APP11-D Reports Import Service** | - |
| *4.9.1* | *APP11-D Report Import* | *4.1.9.1* | *Extract, transform, load APP11-D reports* | - |
| 4.9.1.1 | APP11-D Report Import | [FBE-234] | The APP11-D Reports Import Service shall be able to receive/ obtain the set of ADatP-3 messages in APP11-D XML format defined in the table below as messages from the SOA & IdM Platform. | - |
| 4.9.1.2 | APP11-D Report Import | [FBE-235] | The APP11-D Reports Import Service shall transform the received/ extracted [APP11D-AEW_MISREP] message into a readable PDF file, and also map/ transform the message metadata, to the maximum extent feasible, into a format that is compliant with the OData REST API implemented by the Products Management Service for APP-11 type of products (see NATO::JISR::Staff::Product::APP-11 in the [INTEL-FS2-IM], and subsequently load the transformed message into the I2BE through the Products Management Service. | - |
| 4.9.1.3 | APP11-D Report Import | [FBE-236] | To support testing, the ADatP-3 Integration Services shall include a test function that fully populates [APP11D-AEW_MISREP] messages and publish/ send them on the SOA & IdM Platform. | - |
| 4.9.1.4 | APP11-D Report Import | [FBE-237] | The APP11-D Reports Import Service shall transform the received/ extracted [APP11D-AIRINTREP] message into a readable PDF file, and also map/ transform the message metadata, to the maximum extent feasible, into a format that is compliant with the OData REST API implemented by the Products Management Service for APP-11 type of products (see NATO::JISR::Staff::Product::APP-11 in the [INTEL-FS2-IM]), and subsequently load the transformed message into the I2BE through the Products Management Service. | - |
| 4.9.1.5 | APP11-D Report Import | [FBE-238] | To support testing, the ADatP-3 Integration Services shall include a test function that fully populates [APP11D-AIRINTREP] messages and publish/ send them on the SOA & IdM Platform. | - |
| 4.9.1.6 | APP11-D Report Import | [FBE-239] | The APP11-D Reports Import Service shall transform the received/ extracted [APP11D-ASSESSREP] message into a readable PDF file, and also map/ transform the message metadata, to the maximum extent feasible, into a format that is compliant with the OData REST API implemented by the Products Management Service for APP-11 type of products (see NATO::JISR::Staff::Product::APP-11 in the [INTEL-FS2-IM]), and subsequently load the transformed message into the I2BE through the Products Management Service. | - |

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| 4.9.1.7 | APP11-D Report Import | [FBE-240] | To support testing, the ADatP-3 Integration Services shall include a test function that fully populates [APP11D-ASSESSREP] messages and publish/ send them on the SOA & IdM Platform. | - |
| 4.9.1.8 | APP11-D Report Import | [FBE-241] | The APP11-D Reports Import Service shall transform the received/ extracted [APP11D-BOMBWARN] message into a readable PDF file, and also map/ transform the message metadata, to the maximum extent feasible, into a format that is compliant with the OData REST API implemented by the Products Management Service for APP-11 type of products (see NATO::JISR::Staff::Product::APP-11 in the [INTEL-FS2-IM]), and subsequently load the transformed message into the I2BE through the Products Management Service. | - |
| 4.9.1.9 | APP11-D Report Import | [FBE-242] | To support testing, the ADatP-3 Integration Services shall include a test function that fully populates [APP11D-BOMBWARN] messages and publish/ send them on the SOA & IdM Platform. | - |
| 4.9.1.10 | APP11-D Report Import | [FBE-243] | The APP11-D Reports Import Service shall transform the received/ extracted [APP11D-CIINTREP] message into a readable PDF file, and also map/ transform the message metadata, to the maximum extent feasible, into a format that is compliant with the OData REST API implemented by the Products Management Service for APP-11 type of products (see NATO::JISR::Staff::Product::APP-11 in the [INTEL-FS2-IM]), and subsequently load the transformed message into the I2BE through the Products Management Service. | - |
| 4.9.1.11 | APP11-D Report Import | [FBE-244] | To support testing, the ADatP-3 Integration Services shall include a test function that fully populates [APP11D-CIINTREP] messages and publish/ send them on the SOA & IdM Platform. | - |
| 4.9.1.12 | APP11-D Report Import | [FBE-245] | The APP11-D Reports Import Service shall transform the received/ extracted [APP11D-CIINTSUM] message into a readable PDF file, and also map/ transform the message metadata, to the maximum extent feasible, into a format that is compliant with the OData REST API implemented by the Products Management Service for APP-11 type of products (see NATO::JISR::Staff::Product::APP-11 in the [INTEL-FS2-IM]), and subsequently load the transformed message into the I2BE through the Products Management Service. | - |
| 4.9.1.13 | APP11-D Report Import | [FBE-246] | To support testing, the ADatP-3 Integration Services shall include a test function that fully populates [APP11D-CIINTSUM] messages and publish/ send them on the SOA & IdM Platform. | - |
| 4.9.1.14 | APP11-D Report Import | [FBE-247] | The APP11-D Reports Import Service shall transform the received/ extracted [APP11D-CISUPINTREP] message into a readable PDF file, and also map/ transform the message metadata, to the maximum extent feasible, into a format that is compliant with the OData REST API implemented by the Products Management Service for APP-11 type of products (see NATO::JISR::Staff::Product::APP-11 in the [INTEL-FS2-IM]), and subsequently load the transformed message into the I2BE through the Products Management Service. | - |
| 4.9.1.15 | APP11-D Report Import | [FBE-248] | To support testing, the ADatP-3 Integration Services shall include a test function that fully populates [APP11D-CISUPINTREP] messages and publish/ send them on the SOA & IdM Platform. | - |
| 4.9.1.16 | APP11-D Report Import | [FBE-249] | The APP11-D Reports Import Service shall transform the received/ extracted [APP11D-DIR] message into a readable PDF file, and also map/ transform the message metadata, to the maximum extent feasible, into a format that is compliant with the OData REST API implemented by the Products Management Service for APP-11 type of products (see NATO::JISR::Staff::Product::APP-11 in the [INTEL-FS2-IM]), and subsequently load the transformed message into the I2BE through the Products Management Service. | - |
| 4.9.1.17 | APP11-D Report Import | [FBE-250] | To support testing, the ADatP-3 Integration Services shall include a test function that fully populates [APP11D-DIR] messages and publish/ send them on the SOA & IdM Platform. | - |
| 4.9.1.18 | APP11-D Report Import | [FBE-251] | The APP11-D Reports Import Service shall transform the received/ extracted [APP11D-ENSITREP] message into a readable PDF file, and also map/ transform the message metadata, to the maximum extent feasible, into a format that is compliant with the OData REST API implemented by the Products Management Service for APP-11 type of products (see NATO::JISR::Staff::Product::APP-11 in the [INTEL-FS2-IM]), and subsequently load the transformed message into the I2BE through the Products Management Service. | - |
| 4.9.1.19 | APP11-D Report Import | [FBE-252] | To support testing, the ADatP-3 Integration Services shall include a test function that fully populates [APP11D-ENSITREP] messages and publish/ send them on the SOA & IdM Platform. | - |
| 4.9.1.20 | APP11-D Report Import | [FBE-253] | The APP11-D Reports Import Service shall transform the received/ extracted [APP11D-EVENTREP] message into a readable PDF file, and also map/ transform the message metadata, to the maximum extent feasible, into a format that is compliant with the OData REST API implemented by the Products Management Service for APP-11 type of products (see NATO::JISR::Staff::Product::APP-11 in the [INTEL-FS2-IM]), and subsequently load the transformed message into the I2BE through the Products Management Service. | - |
| 4.9.1.21 | APP11-D Report Import | [FBE-254] | To support testing, the ADatP-3 Integration Services shall include a test function that fully populates [APP11D-EVENTREP] messages and publish/ send them on the SOA & IdM Platform. | - |
| 4.9.1.22 | APP11-D Report Import | [FBE-255] | The APP11-D Reports Import Service shall transform the received/ extracted [APP11D-FHOSTILEACT] message into a readable PDF file, and also map/ transform the message metadata, to the maximum extent feasible, into a format that is compliant with the OData REST API implemented by the Products Management Service for APP-11 type of products (see NATO::JISR::Staff::Product::APP-11 in the [INTEL-FS2-IM]), and subsequently load the transformed message into the I2BE through the Products Management Service. | - |
| 4.9.1.23 | APP11-D Report Import | [FBE-256] | To support testing, the ADatP-3 Integration Services shall include a test function that fully populates [APP11D-FHOSTILEACT] messages and publish/ send them on the SOA & IdM Platform. | - |

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| 4.9.1.24 | APP11-D Report Import | [FBE-257] | The APP11-D Reports Import Service shall transform the received/ extracted [APP11D-INCREP] message into a readable PDF file, and also map/ transform the message metadata, to the maximum extent feasible, into a format that is compliant with the OData REST API implemented by the Products Management Service for APP-11 type of products (see NATO::JISR::Staff::Product::APP-11 in the [INTEL-FS2-IM]), and subsequently load the transformed message into the I2BE through the Products Management Service. | | - |
| 4.9.1.25 | APP11-D Report Import | [FBE-258] | To support testing, the ADatP-3 Integration Services shall include a test function that fully populates [APP11D-INCREP] messages and publish/ send them on the SOA & IdM Platform. | | - |
| 4.9.1.26 | APP11-D Report Import | [FBE-259] | The APP11-D Reports Import Service shall transform the received/ extracted [APP11D-INCSPOTREP] message into a readable PDF file, and also map/ transform the message metadata, to the maximum extent feasible, into a format that is compliant with the OData REST API implemented by the Products Management Service for APP-11 type of products (see NATO::JISR::Staff::Product::APP-11 in the [INTEL-FS2-IM]), and subsequently load the transformed message into the I2BE through the Products Management Service. | | - |
| 4.9.1.27 | APP11-D Report Import | [FBE-260] | To support testing, the ADatP-3 Integration Services shall include a test function that fully populates [APP11D-INCSPOTREP] messages and publish/ send them on the SOA & IdM Platform. | | - |
| 4.9.1.28 | APP11-D Report Import | [FBE-261] | The APP11-D Reports Import Service shall transform the received/ extracted [APP11D-INTREP] message into a readable PDF file, and also map/ transform the message metadata, to the maximum extent feasible, into a format that is compliant with the OData REST API implemented by the Products Management Service for APP-11 type of products (see NATO::JISR::Staff::Product::APP-11 in the [INTEL-FS2-IM]), and subsequently load the transformed message into the I2BE through the Products Management Service. | | - |
| 4.9.1.29 | APP11-D Report Import | [FBE-262] | To support testing, the ADatP-3 Integration Services shall include a test function that fully populates [APP11D-INTREP] messages and publish/ send them on the SOA & IdM Platform. | | - |
| 4.9.1.30 | APP11-D Report Import | [FBE-263] | The APP11-D Reports Import Service shall transform the received/ extracted [APP11D-INTSUM] message into a readable PDF file, and also map/ transform the message metadata, to the maximum extent feasible, into a format that is compliant with the OData REST API implemented by the Products Management Service for APP-11 type of products (see NATO::JISR::Staff::Product::APP-11 in the [INTEL-FS2-IM]), and subsequently load the transformed message into the I2BE through the Products Management Service. | | - |
| 4.9.1.31 | APP11-D Report Import | [FBE-264] | To support testing, the ADatP-3 Integration Services shall include a test function that fully populates [APP11D-INTSUM] messages and publish/ send them on the SOA & IdM Platform. | | - |
| 4.9.1.32 | APP11-D Report Import | [FBE-265] | The APP11-D Reports Import Service shall transform the received/ extracted [APP11D-MARINTREP] message into a readable PDF file, and also map/ transform the message metadata, to the maximum extent feasible, into a format that is compliant with the OData REST API implemented by the Products Management Service for APP-11 type of products (see NATO::JISR::Staff::Product::APP-11 in the [INTEL-FS2-IM]), and subsequently load the transformed message into the I2BE through the Products Management Service. | | - |
| 4.9.1.33 | APP11-D Report Import | [FBE-266] | To support testing, the ADatP-3 Integration Services shall include a test function that fully populates [APP11D-MARINTREP] messages and publish/ send them on the SOA & IdM Platform. | | - |
| 4.9.1.34 | APP11-D Report Import | [FBE-267] | The APP11-D Reports Import Service shall transform the received/ extracted [APP11D-MARINTSUM] message into a readable PDF file, and also map/ transform the message metadata, to the maximum extent feasible, into a format that is compliant with the OData REST API implemented by the Products Management Service for APP-11 type of products (see NATO::JISR::Staff::Product::APP-11 in the [INTEL-FS2-IM]), and subsequently load the transformed message into the I2BE through the Products Management Service. | | - |
| 4.9.1.35 | APP11-D Report Import | [FBE-268] | To support testing, the ADatP-3 Integration Services shall include a test function that fully populates [APP11D-MARINTSUM] messages and publish/ send them on the SOA & IdM Platform. | | - |
| 4.9.1.36 | APP11-D Report Import | [FBE-269] | The APP11-D Reports Import Service shall transform the received/ extracted [APP11D-MISREP] message into a readable PDF file, and also map/ transform the message metadata, to the maximum extent feasible, into a format that is compliant with the OData REST API implemented by the Products Management Service for APP-11 type of products (see NATO::JISR::Staff::Product::APP-11 in the [INTEL-FS2-IM]), and subsequently load the transformed message into the I2BE through the Products Management Service. | | - |
| 4.9.1.37 | APP11-D Report Import | [FBE-270] | To support testing, the ADatP-3 Integration Services shall include a test function that fully populates [APP11D-MISREP] messages and publish/ send them on the SOA & IdM Platform. | | - |
| 4.9.1.38 | APP11-D Report Import | [FBE-271] | The APP11-D Reports Import Service shall transform the received/ extracted [APP11D-OWNSITREP] message into a readable PDF file, and also map/ transform the message metadata, to the maximum extent feasible, into a format that is compliant with the OData REST API implemented by the Products Management Service for APP-11 type of products (see NATO::JISR::Staff::Product::APP-11 in the [INTEL-FS2-IM]), and subsequently load the transformed message into the I2BE through the Products Management Service. | | - |
| 4.9.1.39 | APP11-D Report Import | [FBE-272] | To support testing, the ADatP-3 Integration Services shall include a test function that fully populates [APP11D-OWNSITREP] messages and publish/ send them on the SOA & IdM Platform. | | - |

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| 4.9.1.40 | APP11-D Report Import | [FBE-273] | The APP11-D Reports Import Service shall transform the received/ extracted [APP11D-PWINTERREP] message into a readable PDF file, and also map/ transform the message metadata, to the maximum extent feasible, into a format that is compliant with the OData REST API implemented by the Products Management Service for APP-11 type of products (see NATO::JISR::Staff::Product::APP-11 in the [INTEL-FS2-IM]), and subsequently load the transformed message into the I2BE through the Products Management Service. | - |
| 4.9.1.41 | APP11-D Report Import | [FBE-274] | To support testing, the ADatP-3 Integration Services shall include a test function that fully populates [APP11D-PWINTERREP] messages and publish/ send them on the SOA & IdM Platform. | - |
| 4.9.1.42 | APP11-D Report Import | [FBE-275] | The APP11-D Reports Import Service shall transform the received/ extracted [APP11D-SUPINTREP] message into a readable PDF file, and also map/ transform the message metadata, to the maximum extent feasible, into a format that is compliant with the OData REST API implemented by the Products Management Service for APP-11 type of products (see NATO::JISR::Staff::Product::APP-11 in the [INTEL-FS2-IM]), and subsequently load the transformed message into the I2BE through the Products Management Service. | - |
| 4.9.1.43 | APP11-D Report Import | [FBE-276] | To support testing, the ADatP-3 Integration Services shall include a test function that fully populates [APP11D-SUPINTREP] messages and publish/ send them on the SOA & IdM Platform. | - |
| **4.10** | **Air ORBAT Import** | **4.1.10** | **Air ORBAT Import Service** | **-** |
| *4.10.1* | *Air ORBAT Import* | *4.1.10.1* | *Extract, transform, load ORBATAIR* | - |
| 4.10.1.1 | Air ORBAT Import | [FBE-277] | The Air ORBAT Import Service shall when receiving a [APP11D-ORBATAIR] message on the SOA & IdM Platform, transform the message into a format that is compliant with the OData REST API implemented by the ORBAT Management Service and load the transformed Air ORBAT into the I2BE through the ORBAT Management Service. | - |
| 4.10.1.2 | Air ORBAT Import | [FBE-278] | To support testing, the Air ORBAT Import Service shall also include a separate test function that fully populates and send [APP11D-ORBATAIR] messages on the SOA & IdM Platform. | - |
| **4.11** | **Land ORBAT Import** | **4.1.11** | **Land ORBAT Import Service** | **-** |
| *4.11.1* | *Land ORBAT Import* | *4.1.11.1* | *Extract, transform, load ORBATLAND* | - |
| 4.11.1.1 | Land ORBAT Import | [FBE-279] | The Land ORBAT Import Service shall when receiving a [APP11D-ORBATLAND] message on the SOA & IdM Platform, transform the message into a format that is compliant with the OData REST API implemented by the ORBAT Management Service and load the transformed Land ORBAT into the I2BE through the ORBAT Management Service. | - |
| 4.11.1.2 | Land ORBAT Import | [FBE-280] | To support testing, the Land ORBAT Import Service shall also include a separate test function that fully populates and send [APP11D-ORBATLAND] messages on the SOA & IdM Platform. | - |
| **4.12** | **Maritime ORBAT Import** | **4.1.12** | **Maritime Task Organization Import Services** | **-** |
| *4.12.1* | *Maritime ORBAT Import* | *4.1.12.1* | *Extract, transform, load Maritime Task Organization* | - |
| 4.12.1.1 | Maritime ORBAT Import | [FBE-281] | The Maritime Task Organization Import Service shall at regular intervals (where the interval frequency shall be configurable), poll the [MARIX] services for updates to the maritime task organization. It shall be possible through a configurable filter setting to filter the maritime task organization data to be extracted through the [MARIX] services. | - |
| 4.12.1.2 | Maritime ORBAT Import | [FBE-282] | The Maritime Task Organization Import Service shall transform the extracted maritime task organization data into a format that is compliant with the OData REST API implemented by the ORBAT Management Service and load the transformed maritime task organization data into the I2BE through the ORBAT Management Service. | - |
| **4.13** | **NJTS Import** | **4.1.13** | **NJTS Import Service** | **-** |
| *4.13.1* | *NJTS Import* | *4.1.13.1* | *Extract, transform, load NJTS target data* | - |
| 4.13.1.1 | NJTS Import | [FBE-283] | The NJTS Import Service shall at regular intervals (where the interval frequency shall be configurable), poll the NJTS for new target data (including target lists and target folders with all their content). In the case that NJTS publishes event messages to the SOA & IdM Platform whenever there is a change to its target data, then the NJTS Import Service shall subscribe to the NJTS messages to obtain the target data and/ or to trigger the polling of the target data. It shall be possible through a configurable filter setting to filter the target data to be extracted from NJTS. | - |
| 4.13.1.2 | NJTS Import | [FBE-284] | The NJTS Import Service shall transform the extracted target data into a format that is compliant with the OData REST API implemented by the Target Service and load the transformed target data into the I2BE through the Target Service. | - |
| 4.13.1.3 | NJTS Import | [FBE-285] | The NJTS Import Service shall identify associations to other IIEs in the extracted target data and transform those associations into a format that is compliant with the OData REST API implemented by the IIE to IIE Association Service and load the transformed IIE associations into the I2BE through the IIE to IIE Association Service. | - |
| **4.14** | **MIDB Import** | **4.1.14** | **MIDB Import Service** | **-** |
| *4.14.1* | *MIDB Import* | *4.1.14.1* | *Extract, transform, load MIDB Unit and Equipment Holdings data* | - |

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| 4.14.1.1 | MIDB Import | [FBE-286] | The MIDB Import Service shall at regular intervals (where the interval frequency shall be configurable), or at discrete manually controlled points in time, poll the MIDB for new BSO data of type Units and Equipment Holdings. It shall be possible through a configurable filter setting to filter the BSO data to be extracted from MIDB (filtering options shall include timestamps, and location). | - |
| 4.14.1.2 | MIDB Import | [FBE-287] | The MIDB Import Service shall transform the extracted Unit and Equipment Holdings data into a format that is compliant with the OData REST API implemented by the BSO Management Service and load the transformed BSOs/ BSRs into the I2BE through the BSO Management Service. | - |
| *4.14.2* | *MIDB Import* | *4.1.14.2* | *Extract, transform, load MIDB Places/ Facilities and Equipment Holdings data* | - |
| 4.14.2.1 | MIDB Import | [FBE-288] | The MIDB Import Service shall at regular intervals (where the interval frequency shall be configurable), or at discrete manually controlled points in time, poll the MIDB for new BSO data of type Places/Facilities and Equipment Holdings. It shall be possible through a configurable filter setting to filter the BSO data that are extracted from MIDB (filtering options shall include timestamps, and location). | - |
| 4.14.2.2 | MIDB Import | [FBE-289] | The MIDB Import Service shall transform the extracted Places/Facilities and Equipment Holdings data into a format that is compliant with the OData REST API implemented by the BSO Management Service and load the transformed BSOs/ BSRs into the I2BE through the BSO Management Service. | - |
| *4.14.3* | *MIDB Import* | *4.1.14.3* | *Extract, transform, load MIDB Events* | - |
| 4.14.3.1 | MIDB Import | [FBE-290] | The MIDB Import Service shall at regular intervals (where the interval frequency shall be configurable), or at discrete manually controlled points in time, poll the MIDB for new BSO data of type Event. It shall be possible through a configurable filter setting to filter the BSO data that are extracted from MIDB (filtering options shall include timestamps, and location). | - |
| 4.14.3.2 | MIDB Import | [FBE-291] | The MIDB Import Service shall transform the extracted Events data into a format that is compliant with the OData REST API implemented by the BSO Management Service and load the transformed BSOs/ BSRs into the I2BE through the BSO Management Service. | - |
| *4.14.4* | *MIDB Import* | *4.1.14.4* | *Extract, transform, load MIDB Persons* | - |
| 4.14.4.1 | MIDB Import | [FBE-292] | The MIDB Import Service shall at regular intervals (where the interval frequency shall be configurable), or at discrete manually controlled points in time, poll the MIDB for new BSO data of type Person. It shall be possible through a configurable filter setting to filter the BSO data that are extracted from MIDB (filtering options shall include timestamps, and location). | - |
| 4.14.4.2 | MIDB Import | [FBE-293] | The MIDB Import Service shall transform the extracted Persons data into a format that is compliant with the OData REST API implemented by the BSO Management Service and load the transformed BSOs/ BSRs into the I2BE through the BSO Management Service. | - |
| **4.15** | **Asset Lists Import** | **4.1.15** | **Asset Lists Import Service** | - |
| *4.15.1* | *Asset Lists Import* | *4.1.15.1* | *Extract, transform, load asset lists* | - |
| 4.15.1.1 | Asset Lists Import | [FBE-294] | The Asset Lists Import Service shall at regular intervals (where the interval frequency shall be configurable), poll the AirC2IS Asset List Services (see [AirC2IS ICD]) for updates to the asset lists. It shall be possible through a configurable filter setting to filter the asset list data to be extracted from AirC2IS. | - |
| 4.15.1.2 | Asset Lists Import | [FBE-295] | The Asset Lists Import Service shall transform the extracted asset list data into a format that is compliant with the OData REST API implemented by the JIPOE Service and load the transformed maritime task organization data into the I2BE through the JIPOE Service. | - |
| **4.16** | **EOB Import** | **4.1.16** | **Electronic Order of Battle (EOB) Import Service** | - |
| *4.16.1* | *EOB Import* | *4.1.16.1* | *Extract, transform, load EOB data* | - |
| 4.16.1.1 | EOB Import | [FBE-296] | The EOB Import Service shall at regular intervals (where the interval frequency shall be configurable), poll the NEDB-NG system (see [CEOB-EF]) for new EOB data. It shall be possible through a configurable filter setting to filter the EOB data that are extracted from NEDB-NG. | - |
| 4.16.1.2 | EOB Import | [FBE-297] | The EOB Import Service shall transform the extracted EOB data into a BSO and BSO status report format that is compliant with the OData REST API implemented by the BSO Management Service and load the transformed EOB data into the I2BE through the BSO Management Service. | - |
| 4.16.1.3 | EOB Import | [FBE-298] | The INTEL-FS Spiral1 BSO Migration Service shall through inspection of the extracted EOB data construct electronic ORBATs and transform the ORBAT data into a format that is compliant with the OData REST API implemented by the ORBAT Management Service and load the transformed electronic ORBAT into the I2BE through the ORBAT Management Service. | - |
| **4.17** | **CIWS COM Import** | **4.1.17** | **BM Firing Event Import Service** | - |
| *4.17.1* | *CIWS COM Import* | *4.1.17.1* | *Extract, transform, load NIRIS missile track data* | - |
| 4.17.1.1 | EOB Import | [FBE-299] | The BM Firing Event Import Service shall at regular intervals (where the interval frequency shall be configurable), poll the NIRIS RESTful Track Service for missile launch tracks, missile in-flight tracks, and missile impact tracks. It shall be possible through a configurable filter setting to filter the missile track data to be extracted from NIRIS. | - |

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| 4.17.1.2 | EOB Import | [FBE-300] | The BM Firing Event Import Service shall combine missile launch track data, missile in-flight track data, and missile impact data, and transform this combined data into a historical firing event format (see NATO::BMD::Battlespace::Action::Event::HFE in the [INTEL-FS2-IM]) that is compliant with the OData REST API implemented by the BSO Management Service and load the transformed missile track data into the I2BE through the BSO Management Service. | - |
| **5** | | **4.2** | **Integration services – I2BE source** | - |
| **5.1** | **CCC Export** | **4.2.1** | **Central Card Catalogue (CCC) Export Service** | - |
| *5.1.1* | *CCC Export* | *4.2.1.1* | *Export of products to CCC* | - |
| 5.1.1.1 | CCC Export | [FBE-301] | The CCC Export Services shall detect new products and updates to existing products, and then read the product information through the Product Management Services OData REST API, transform the product information (that includes embedding product files) to the [IPIWG] format and post the information to the CCC. | - |
| 5.1.1.2 | CCC Export | [FBE-302] | It shall be possible to specify and refine filters for which products to export from I2BE to the CCC. The filtering options shall include filtering on data set (operational, training, exercise, etc.), geographical coverage areas, temporal data, source/ publisher, and classification/ releasability, etc. | - |
| *5.1.2* | *CCC Export* | *4.2.1.2* | *Export of RFI data to CCC* | - |
| 5.1.2.1 | CCC Export | [FBE-303] | The CCC Export Services shall detect new RFIs and RFI responses, and updates to existing RFI and RFI responses, and then read the RFI and RFI responses information through the RFI Management Services OData REST API, transform the information (that includes embedding any attachments) to the [IPIWG] format and post the information to the CCC. | - |
| 5.1.2.2 | CCC Export | [FBE-304] | It shall be possible to specify and refine filters for which RFIs and RFI responses to export from I2BE to the CCC. The filtering options shall include filtering on data set (operational, training, exercise, etc.), geographical coverage areas, temporal data, source/ publisher, and classification/ releasability, etc. | - |
| **5.2** | **CSD Export** | **4.2.2** | **NATO CSD Export Service** | - |
| *5.2.1* | *CSD Export* | *4.2.2.1* | *Export of products to NATO CSD IPL* | - |
| 5.2.1.1 | CSD Export | [FBE-305] | The NATO CSD Export Services shall detect new products and updates to existing products, and then read the product information through the Product Management Service OData REST API, transform the product information (that includes embedding product files and other attachments) into a format that is compliant with the NATO CSD “IntelFS REST API” (see section 5.2.3.3 and appendix A.2.3 in [NCSD-IPL-SDS]), and upload the product to the NATO CSD IPL. | - |
| 5.2.1.2 | CSD Export | [FBE-306] | It shall be possible to specify and refine filters for which products to export from I2BE to the NATO CSD IPL. The filtering options shall include filtering on data set (operational, training, exercise, etc.), geographical coverage areas, temporal data, source/ publisher, and classification/ releasability, etc. | - |
| *5.2.2* | *CSD Export* | *4.2.2.2* | *Export of IRM&CM workflow data to NATO CSD IWS* | - |
| 5.2.2.1 | CSD Export | [FBE-307] | The NATO CSD Export Services shall detect new or updated Geospatial and Features where the change is originating in the I2BE. The service shall then read the Geospatial and Features through the Geospatial and Features Service OData REST API, transform the data into a format that is compliant with the NATO CSD JIEService (see [NCSD-IWS-SDS]) and create or update Geospatial and Features in the NATO CSD IWS. | - |
| 5.2.2.2 | CSD Export | [FBE-308] | The NATO CSD Export Services shall detect new or updated ISR organization data where the change is originating in the I2BE. The service shall then read the ISR organization data through the ISR Organization Service OData REST API, transform the data into a format that is compliant with the NATO CSD JIEService (see [NCSD-IWS-SDS]) and create or update ISR organization data in the NATO CSD IWS. | - |
| 5.2.2.3 | CSD Export | [FBE-309] | The NATO CSD Export Services shall detect new or updated IRM data where the change is originating in the I2BE. The service shall then read the IRM data through the IRM Service OData REST API, transform the data into a format that is compliant with the NATO CSD JIEService (see [NCSD-IWS-SDS]) and create or update IRM data in the NATO CSD IWS. | - |
| 5.2.2.4 | CSD Export | [FBE-310] | The NATO CSD Export Services shall detect new or updated CRM data where the change is originating in the I2BE. The service shall then read the CRM data through the CRM Service OData REST API, transform the data into a format that is compliant with the NATO CSD JIEService (see [NCSD-IWS-SDS]) and create or update CRM data in the NATO CSD IWS. | - |
| 5.2.2.5 | CSD Export | [FBE-311] | The NATO CSD Export Services shall detect new or updated COM data where the change is originating in the I2BE. The service shall then read the COM data through the COM Service OData REST API, transform the data into a format that is compliant with the NATO CSD JIEService (see [NCSD-IWS-SDS]) and create or update COM data in the NATO CSD IWS. | - |
| **5.3** | **APP11-D Reports Export** | **4.2.3** | **APP11-D Reports Export Service** | - |
| *5.3.1* | *APP11-D Reports Export* | *4.2.3.1* | *Auto-generate AIRINTREP messages* | - |

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| 5.3.1.1 | APP11-D Reports Export | [FBE-312] | The APP11-D Report Export Services shall detect updates to airfield BSOs (i.e. BSOs of type 'Place') and then subsequently interrogate the airfield BSO (through the I2BE OData REST API) to check the airfields status reports to see if there is any change to the Aircraft Equipment Lines. If there are changes to the Aircraft Equipment Lines then a message in [APP11D-AIRINTREP] XML format shall be automatically generated from the airfield BSO data and published/ sent on the SOA & IdM Platform. | - |
| **5.4** | **Emulated IFS1 WS** | **4.2.4** | **Emulated INTEL-FS Spiral 1 Web Services** | **-** |
| *5.4.1* | *Emulated IFS1 WS* | *4.2.4.1* | *INTEL-FS Increment 1 SOAP Web Services* | - |
| 5.4.1.1 | Emulated IFS1 WS | [FBE-313] | The Emulated INTEL-FS Spiral 1 Web Services shall implement the legacy I_INTEL-FS_SYSTEM_SERVICE (see table below) in accordance with [IFS1-ICD] as a façade for accessing the I2BE. | - |
| 5.4.1.1 | Emulated IFS1 WS | [FBE-314] | The Emulated INTEL-FS Spiral 1 Web Services shall implement the legacy I_INTEL-FS_DOMAINVALUE_SERVICE (see table below) in accordance with [IFS1-ICD] as a facade for accessing the I2BE. | - |
| 5.4.1.1 | Emulated IFS1 WS | [FBE-315] | The Emulated INTEL-FS Spiral 1 Web Services shall implement the legacy I_INTEL-FS_ENTITY_SERVICE (see table below) in accordance with [IFS1-ICD] as a facade for accessing the I2BE. | - |
| 5.4.1.1 | Emulated IFS1 WS | [FBE-316] | The Emulated INTEL-FS Spiral 1 Web Services shall implement the legacy I_INTEL-FS_ORBAT_SERVICE (see table below) in accordance with [IFS1-ICD] as a facade for accessing the I2BE. | - |
| 5.4.1.1 | Emulated IFS1 WS | [FBE-317] | The Emulated INTEL-FS Spiral 1 Web Services shall implement the legacy I_INTEL-FS_QUERY_SERVICE (see table below) in accordance with [IFS1-ICD] as a facade for accessing the I2BE. | - |

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| **Total of WP 2.1 - Implementation of I2BE and Integration Services** | **-** |

| CLIN | SOW reference | Description | Price | Delivery time | Optional Comments (Mandatory for zero costs lines) |
|---|---|---|---|---|---|
| | | Declare Currency => | - | | |
| 6 | 3.4 | **Optional 3rd and 4th Level Maintenance and Support (after Warranty)** | - | | |
| 6.1 | 3.4 | 3rd and 4th level Maintenance and Support - Option Year 1 | - | From FSA + 1 year to FSA + 2 years | |
| 6.2 | 3.4 | 3rd and 4th level Maintenance and Support - Option Year 2 | - | From FSA + 2 years to FSA + 3 years | |
| 6.3 | 3.4 | 3rd and 4th level Maintenance and Support - Option Year 3 | - | From FSA + 3 years to FSA + 4 years | |
| 6.4 | 3.4 | 3rd and 4th level Maintenance and Support - Option Year 4 | - | From FSA + 4 years to FSA + 5 years | |
| 6.5 | 3.4 | 3rd and 4th level Maintenance and Support - Option Year 5 | - | From FSA + 5 years to FSA + 6 years | |

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| **Total of WP 2.2 - 3rd and 4th Level Maintenance and Support** | - |

| CLIN | Labour Category | Currency | Man-Days 2021 | Man-Days 2022 | Man-Days 2023 | Man-Days 2024 | Man-Days 2025 | Man-Days 2026 | Man-Days 2027 | Man-Days 2028 | Man-Days 2029 | Man-Days 2030 | Lab-rate 2021 | Lab-rate 2022 | Lab-rate 2023 | Lab-rate 2024 | Lab-rate 2025 | Lab-rate 2026 | Lab-rate 2027 | Lab-rate 2028 | Lab-rate 2029 | Lab-rate 2030 | Extended cost | Expat Allowance (ONLY if applicable) | Profit | Fully burdened cost | Subcontracted/ Name of Subcontractor |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Example. CLIN 2.1 | Systems Engineer | Euro (EUR) | 25 | 20 | 15 | 10 | 5 | 10 | 15 | 20 | 25 | 30 | 50.00 | 51.00 | 52.00 | 53.00 | 54.00 | 55.00 | 56.00 | 57.00 | 58.00 | 59.00 | 9,600.00 | | 960.00 | 10,560.00 | No |
| CLIN 1.1 | Insert Labour category name here | | | | | | | | | | | | | | | | | | | | | | - | - | 0.00 | 0.00 | |
| | Insert Labour category name here | | | | | | | | | | | | | | | | | | | | | | - |

| CLIN | Equipment Name | Item Description | Currency | Quantity 2021 | Quantity 2022 | Quantity 2023 | Quantity 2024 | Quantity 2025 | Quantity 2026 | Quantity 2027 | Quantity 2028 | Quantity 2029 | Quantity 2030 | Unit cost 2021 | Unit cost 2022 | Unit cost 2023 | Unit cost 2024 | Unit cost 2025 | Unit cost 2026 | Unit cost 2027 | Unit cost 2028 | Unit cost 2029 | Unit cost 2030 | Extended cost | Profit | Fully burdened cost | Subcontracted/ Name of Subcontractor |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Example. CLIN 2.1 | EXAMPLE: BrandX Server: TS1593 | Example: HT800003 (model number) | Euro (EUR) | 10 | 20 | 25 | 5 | 5 | 10 | 15 | 20 | 10 | 5 | 150.00 | 155.00 | 160.00 | 165.00 | 170.00 | 175.00 | 180.00 | 185.00 | 190.00 | 195.00 | 21,300.00 | 2,130.00 | 24,430.00 | No |
| CLIN 1.1 | Insert Purchased Equipment name | Insert Item Description/Model number | | | | | | | | | | | | | | | | | | | | | | 0.00 | 0.00 | 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 2.1 | Rome/The Hague | 2021 | Euro (EUR) | 4 | 3 | 5 | 600.00 | 150.00 | 16,200.00 | 810.00 | 17,010.00 |
| CLIN 1.1 | Insert Origin/destination | | | | | | | | - | 0.00 | 0.00 |
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| **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 | 2021 | Euro (EUR) | Lot | 2 | 3,000.00 | 6,000.00 | 300.00 | 6,300.00 |
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| **Total** | | | **0.00** |

| Rate Name | Rate description* | Percentage |
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| [Insert Rate Name] | | 0% |
| [Insert Rate Name] | | 0% |
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NATO Communications and Information Agency
Agence OTAN d'information et de communication

# IFB-CO-14873-INTELFS2

# Intelligence Functional Services (INTEL-FS) - Spiral 2 and BMD functions in INTEL-FS

BOOK II

PART II
CONTRACT SPECIAL PROVISIONS

## Introduction

The Contract Special Provisions for the User Applications (UA) contract and the Back-end Data Management and Integration (BE) contract will be almost identical.

There are some sections in this document that contain a note to *"delete whichever does not apply".* For example, in Section 4, Scope:

> *4.1 The purpose of this contract is to upgrade the current Intelligence Functional Services (INTEL-FS) User Applications / Back-end Data Management capabilities [delete whichever does not apply]. All of the technical details and requirements of this project are explained in Part IV – Statement of Work, and its annexes, the System Requirements Specification and User Stories.*

This simply means that either the reference to "User Applications" or "Back-end Data Management" will be removed prior to contract award, and the remaining content of that section will remain unchanged.

Bidders shall not make any changes to these Contract Special Provisions as part of their bid.

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# 1 ALTERATIONS, MODIFICATIONS AND DELETIONS OF THE NCIA CONTRACT GENERAL PROVISIONS

1.1 Article 2 “Order of Precedence” modifies Clause 1 “Order of Precedence” of the Contract General Provisions.

1.2 Article 3 “Interpretations, Definitions and Acronyms” supplements Clause 2 “Definitions of Terms and Acronyms” of the Contract General Provisions.

1.3 Article 5 “Contract Type and Consideration” replaces Clause 7 “Firm Fixed Price Contract” of the Contract General Provisions.

1.4 Article 9 “Acceptance Procedures – Agile Development” augments Clause 21 “Inspection and Acceptance of Work” and Clause 22 “Inspection and Acceptance of Documentation” of the Contract General Provisions.

1.5 Article 10 “Final Systems Acceptance” augments Clause 21 “Inspection and Acceptance of Work” and Clause 22 “Inspection and Acceptance of Documentation” of the Contract General Provisions.

1.6 Article 11 “Termination for Default” augments Clause 39 “Termination for Default” of the Contract General Provisions.

1.7 Article 12 “Termination for Convenience of the Purchaser” delimits Clause 40 “Termination for Convenience of the Purchaser” of the Contract General Provisions.

1.8 Article 13 “Liquidated Damages” replaces Clause 38 “Liquidated Damages” of the Contract General Provisions.

1.9 Article 15 “Participating Countries” augments Clause 9 “Participating Countries” of the Contract General Provisions.

1.10 Article 16 “Security” augments Clause 11 “Security” of the Contract General Provisions.

1.11 Article 17 “Intellectual Property” augments Clause 30 “Intellectual Property” of the Contract General Provisions.

1.12 Article 19 “Systems Warranty” augments Clause 27 “Warranty of Work (Exclusive of Software)” and Clause 30 “Software Warranty” of the Contract General Provisions.

1.13 Article 21 “Purchaser Furnished Items” augments Clause 13 “Purchaser Furnished Property and Services” of the Contract General Provisions.

1.14 Article 23 “Pricing of Changes, Modifications, Follow-on Contracts and Claims” augments Clause 19 “Pricing of Changes, Amendments and Claims” of the Contract General Provisions.

1.15 Article 24 “Acceptance of Design Documentation” augments Clause 22 “Inspection and Acceptance of Documentation” of the Contract General Provisions.

1.16 Article 26 “Place and Terms of Delivery” replaces sub-Clause 20.1 of Clause 20 “Notice of Shipment and Delivery” of the Contract General Provisions.

1.17 Article 29 “Purchaser Right to Contract with Third Parties in Case of Contractor Default” supplements Clause 39 “Termination for Default” of the Contract General Provisions.

## 2 ORDER OF PRECEDENCE

2.1 Clause 1 of the Contract General Provisions is modified to read as follows;

"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:

2.1.1 The signature page

2.1.2 Part I – Schedule of Supplies and Services

2.1.3 Part II – Contract Special Provisions

2.1.4 Part III – Contract General Provisions

2.1.5 Part IV – Statement of Work

2.1.6 Part IV – Statement of Work Annex A, System Requirements Specification

2.1.7 Part IV – Statement of Work Annex B, User Stories *(UA contract only)*

2.1.8 Part IV – Statement of Work Annex B, Information Model *(BE contract only)*

2.1.9 Part V – Abbreviations and Acronyms

2.1.10 Any sections of the Contractor's proposal (Technical or Price Volumes) in response to IFB-CO-14873-INTELFS2, dated [date to be inserted at contract award] and any clarifications thereto, specifically incorporated by reference.

## 3 INTERPRETATIONS, DEFINITIONS AND ACRONYMS

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

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

3.2.1 **"Application"**: the working software products that will be delivered by the Contractor on the User Applications (UA) contract.

3.2.2 **"Activity"**: the periods in which the Services on the Back-end (BE) contract are organized in the SSS. The BE contract has two activities.

3.2.3 **"BE"**: the abbreviation for the Back-end, Data Management contract.

3.2.4 **"CLIN"**: Contract Line Item Number, as shown in the Schedule of Supplies and Services (SSS). For example, 1.0, 2.0, etc.

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

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

3.2.7 **"Days"**: calendar days.

3.2.8 **"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.

3.2.9 **"EDC"**: Effective Date of Contract.

3.2.10 **"FSA"**: Final Systems Acceptance.

3.2.11 **"Increment"**: is expected to be, on average, about three months in duration. At the end of each Increment, acceptance testing will be performed on any requirements that have been completed. The planning on prioritization of requirements will be managed per Increment.

3.2.12 **"Initial Acceptance"**: this is granted for an Application/Service when all of the Must-have Requirements for that Application/Service, as noted in the SSS, have been delivered and accepted.

3.2.13 **"MoSCoW Prioritization"**: the Agile method of prioritizing specific contract requirements per Increment. Please note the terms "Must have", "Should have" and "Could have" refer to the priority of a requirement for a specific Increment; these terms do not mean that any requirements listed in the SSS are optional.

3.2.14 **"NATO Participating Country"**: any of the 29 NATO nations that have 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.

3.2.15 **"Phase"**: the periods in which the Applications on the UA contract are organized in the SSS. The UA contract has three phases.

3.2.16 **"Purchaser"**: the current NCI Agency or its legal successor.

3.2.17 **"SPI"**: the Schedule Performance Index, measured at the end of each Increment as the value of the Requirements delivered divided by the value of the Requirements planned for that Increment.

3.2.18 **"SSS"**: the Schedule of Supplies and Services.

3.2.19 **"Service"**: working software products that will be delivered by the Contractor on the Back End Data Management contract.

3.2.20 **"SubCLIN"**: Sub Contract Line Item Number that falls under a CLIN. These are listed in the SSS, for example, 1.2, 1.3, 1.4, etc. for the Applications/Services; and 1.2.1.1 or 1.4.1.3 for the Requirements.

3.2.21 **"UA"**: the abbreviation for the Front-end, User Applications contract.

## 4 SCOPE

4.1 The purpose of this contract is to upgrade the current Intelligence Functional Services (INTEL-FS) User Applications / Back-end Data Management capabilities *[delete whichever does not apply]*. All of the technical details and requirements of this project are explained in Part IV – Statement of Work (SOW), and its annexes, the System Requirements Specification, the User Stories, and the Information Model.

4.2 This contract will be managed using elements of the Agile methodology. The following paragraphs provide a high-level overview, which is then further explained in the SOW and its annexes.

4.3 The technical work to be performed under this contract is organized into **Applications** (for the User Application contract) or **Services** (for the Back End Data Management contract). Each Application/Service is then broken down into specific **Requirements**.

4.3.1 The Schedule of Supplies and Services (SSS) lists all of the Applications/Services at the CLIN X.1 level. For example CLINs 1.1, 2.1, 2.2, 3.6, etc. are all considered Applications/Services.

4.3.2 The SSS lists all of the Requirements at the CLIN X.1.2.3 level. For example, CLIN 1.1.1.1, CLIN 2.1.4.1, CLIN 3.6.2.1, etc. are all considered individual Requirements.

4.4 Within each Application/Service, the Requirements are assigned a **priority**: Must-have, Should-have or Could-have. The **Must-have** requirements collectively represent the minimum set of deliverables that will provide a working Application. All of the Must-have requirements must be completed before the Initial Acceptance will be granted by the Purchaser for that Application. If the Must-have requirements have not been completed by the end of the Increment, the Increment will be extended by additional Sprints until the Increment has been completed. The SSS notes which Requirements must be delivered for the Initial Acceptance to be granted in the column “Required for Initial Acceptance.”

4.5 Applications/Services may contain **Should-have** and/or **Could-have** requirements. It is important to note that these are not “optional” requirements. While they are not required to be completed for the Initial Acceptance of the Application/Service, all of these requirements are an important part of the contract scope and required to be delivered.

4.6 Quarterly Increments: The delivery of the requirements and Applications/ Services will be spread over **Increments**, which are expected to be, on average, three months in duration. Acceptance testing will be performed at the end of each Increment for any requirement completed during that Increment, as explained further in Section 8.

4.7 Monthly Sprints: Each Increment is typically comprised of three **Sprints**.

4.8 This contract includes two Incentive payments for early and complete delivery, as explained in Section 6.

## 5 CONTRACT TYPE AND CONSIDERATION

5.1 This Article replaces Clause 7 of the Contract General Provisions.

5.2 This is a Fixed Price Incentive Fee contract.

5.3 The Schedule of Supplies and Services (SSS) of this Contract, organized into Contract Line Items (CLINs), lists all services and/or deliverables, their priority, and their fixed price.

5.4 Included in the prices shown in the SSS are all costs for activities not specifically listed on the SSS, but that are considered necessary by the Contractor to execute the Statement of Work, included but not limited to:

- All travel, per diem and accommodation costs;
- All executive management, administrative or other support effort;
- All facility or other overhead costs;
- All other direct costs.

5.5 In addition to the prices shown in the SSS, the contract includes an incentive fee as further explained in Section 6.

## 6 INCENTIVE FEE

6.1 The Contract allows for additional payments to recognize early delivery of all requirements of an Application/Service. This incentive is in addition to the normal payment following acceptance of each Application/Service and its Requirements.

6.2 The maximum amount of any earned incentive shall be 5% of the value of that Application/Service as specified in SSS Section 2, Payments.

6.3 There are two Incentive Milestones dates:

6.3.1 For the Front-end (UA) contract, the first incentive milestone will be EDC+18 Months for all deliverables listed under CLIN 1 and CLIN 2 of that contract.

6.3.2 For the Back-end (BE) contract, the first incentive milestone will be EDC+12 months for all back-end services listed under CLIN 1 of that contract.

6.3.3 The second Incentive Milestone will be four weeks prior to the respective FSA, as defined in Section 10.

6.4 The incentives will be applied as follows:

6.4.1 Step 1: For any incentive to be earned, all Applications/Services must have passed the Initial Acceptance – that is, all of the Must-have Requirements for all of the Applications/Services have been accepted. If there are any Must-have Requirements that have not been accepted, thereby preventing the Initial Acceptance of any Application/Service, no incentive will be paid.

6.4.2 Step 2: If all of the Applications/Services have passed the Initial Acceptance in Step 1 above, then for any Application/Service which has had all requirements (Must-have, Should-have and Could-have) accepted by the Incentive Milestone date, the incentive will be calculated as 5% of the total price of those Applications/Services. If one or more Should-have or Could-have requirements have not yet been accepted for a particular Application/Service, the Contractor will not earn the incentive for that Application/Service.

6.4.3 The Purchaser's determination of this Incentive Fee is not subject to the Disputes clause.

## 7 INVOICING AND PAYMENT

7.1 This Clause augments Clause 25 of the Contract General Provisions.

7.2 No payment shall be made with respect to Requirements that have not been accepted, and/or incorrectly submitted invoices.

7.3 Each invoice shall correspond to the successful completion of an Application/Service or Requirement, shall contain evidence of the acceptance of that Application/Service or Requirement, and shall reference the appropriate sub-CLIN.

7.4 The accumulated invoices for any CLIN cannot exceed the value of that CLIN as stated in the SSS.

7.5 Payment Schedule:

7.5.1 Upon the successful achievement of the Initial Acceptance for each Application/Service – that is, all of the Must-have Requirements have been accepted – the Contractor may submit the first invoice for that Application/Service, in accordance with Part I, Schedule of Supplies and Services, Section 2, *Payment Schedule*. The Requirements that must be accepted for the Initial Acceptance are identified in the SSS, in the column "Required for Initial Acceptance".

7.5.2 The Contractor may also invoice the value of any accepted Should-have and Could-Have Requirements for Applications/Services that have already passed the Initial Acceptance. Payment for Should-have and Could-have Requirements will not be made until all of the Must-have Requirements have been accepted for that Application/Service.

7.5.3 The amount of the invoices – both following the Initial Acceptance for each Application/Service and the acceptance of subsequent Requirements – will equal 90% of the value of the accepted Requirements. The remaining 10% will be paid during the one-year warranty period following FSA.

7.5.4 The total amount of the warranty payment will be 10% of the total value of the accepted Requirements. It will be paid in four quarterly payments of 25% of the total warranty amount upon approval of a quarterly status report.

7.6 As explained in Section 6, the Contractor can earn an incentive fee for timely and complete delivery. Following notification by the Purchaser of the amount of the incentive earned, the Contractor may submit an invoice for this incentive. The earned incentive, if any, will be fully paid at the time it is earned; no amount will be withheld to be paid during the warranty.

## 8 OPTIONS

8.1 The contract includes options for annual maintenance for up to five years following FSA, which are available for unilateral exercise by the Purchaser at any time and in any combination from Effective Date of Contract until two months before the end of the contract. The total value of these optional CLINs is not included in the initial contract value stated on the signature page of the Contract.

8.2 These optional CLINs are 5.1 – 5.5 for the Front-end (UA) contract; and 6.1 – 6.5 for the Back-end (BE) contract. *[delete whichever does not apply]*

8.3 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 the base contract as described in the SSS and SOW.

8.4 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).

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

8.6 Any optional CLINs may be exercised unilaterally by the Purchaser, and confirmed by written amendment to the Contract which will establish the payment terms.

8.7 The exercised optional CLINs will be paid in four quarterly payments of 25% of the CLIN amount upon approval of a quarterly status report. The exercised options can be invoiced following successful delivery and acceptance.

8.8 The delivery dates for the options will be specified in the amendment, and Acceptance of the items delivered under this Contract will be made according to Clause 21 - "Inspection and Acceptance of Work" and Clause 22 – "Inspection and Acceptance of Documentation" of the Contract General Provisions and the Statement of Work.

## 9 ACCEPTANCE PROCEDURES – AGILE DEVELOPMENT

9.1 “Acceptance” is the action by which the Purchaser formally acknowledges that the Contractor has fully demonstrated that the Increment releases are “complete” in accordance with the criteria and definitions in Section 2 and Section 3 of the Statement of Work, and that Contract Deliverables are complete or have been performed according to the requirements set forth.

9.2 Contract payment milestones, as designated in the Schedule of Supplies and Services, shall only be considered as complete and eligible for payment when all milestone entry and exit criteria, and any works or events as defined in this contract as associated and underlying the payment milestone has been formally delivered in the Increment release package (as defined in the SOW) and acknowledged as completed by the Purchaser. Payment milestones shall only be considered as confirmed and fully achieved when the Purchaser has advised the Contractor formally in writing that all conditions necessary for milestone completion (as defined in the Delivery Acceptance Report in the SOW) have been successfully met. All documents and data shall be prepared by the Contractor and approved by the Purchaser.

9.3 Purchaser review and acceptance procedures specific to contract documentation to be submitted by the Contractor are as described in Section 2.5.4.8 of the Statement of Work, “Deliverable Acceptance Report”.

## 10 FINAL SYSTEMS ACCEPTANCE (FSA)

10.1 This Clause modifies Clauses 21 and 22 of the Contract General Provisions.

10.2 The final contracted Increment for the Front-End UA contract shall end at EDC+32 months. The final contracted Increment for the Back-end BE contract shall end at EDC+36 months.

10.3 Within two weeks after the Deliverable Acceptance Review (as defined in SOW 2.4.5.2.6) for the final contracted Increment, for any Requirements not yet completed the Purchaser shall inform the Contractor whether:

10.3.1 These Requirements will be removed from the contract, with a 10% penalty assessed as explained in paragraph 13.4, or;

10.3.2 The contract will be extended with one or more Increments, with liquidated damages assessed as described in paragraph 13.3, to allow the Contractor to complete specific Requirements.

10.4 After the final contracted Increment has been accepted by the Purchaser, the Contractor shall request FSA in writing to the Purchaser, supported by an FSA Report, which shall document:

10.4.1 The completion status of all Requirements listed in the SSS;

10.4.2 All outstanding defects recorded through the Contractor's Defect Management Process as per SOW 2.4.5.2.2.2, with a correction action plan for addressing these defects under Warranty.

10.5 Within 3 weeks of the receipt of a request for FSA, the Purchaser will schedule FSA meeting.

10.6 The FSA meeting will be chaired by the Purchaser with the objective to verify that all contract Requirements (except warranty) have been met and that the Purchaser may grant the FSA.

10.7 The Contractor shall prepare a written report of the FSA meeting in the form of meeting minutes that shall be reviewed and signed by the representatives of the Contractor and Purchaser respectively.

## 11 TERMINATION FOR DEFAULT

11.1 This Article augments Clause 39 of the Contract General Provisions.

11.2 Beginning at the end of the second Increment, the Purchaser will monitor the Contractor's Schedule Performance Index (SPI). The SPI is calculated by dividing the value of the Requirements delivered by the value of the Requirements planned according to the baseline delivery schedule. The baseline delivery schedule, initially proposed by the Contractor in its bid, is specifically included in the contract in Part I, *Schedule of* Supplies and Services, Section 3, *Project Schedule*. This baseline delivery schedule may be updated upon the agreement of both parties at the start of each Work Package. The values are based on the prices listed for each Requirement in the SSS.

11.3 The SPI will be used to mathematically measure the "failure to make progress as to endanger performance", as stated in Clause 39.1.2 of the General Contract Provisions. It does not obviate the other basis upon which the Termination for Default clause may be invoked. If the SPI falls below 0.70, the Purchaser will consider that the Contractor is "failing to make progress as to endanger performance."

## 12 TERMINATION FOR CONVENIENCE OF THE PURCHASER

12.1 This Article delimits Clause 40 of the Contract General Provisions.

12.2 Notwithstanding the provisions of the Termination for Convenience clause in the Contract General Provisions, the maximum liability of the Purchaser in the event the Purchaser terminates the Contract pursuant to this Clause will not exceed the value of that amount already paid under the contract to the point of termination, the outstanding unpaid invoices for deliveries accepted and the next two planned Increments following the current one. For example, if the Purchaser terminates the contract for convenience in Increment 5, the maximum liability of the Purchaser will equal the value of Increments 6 and 7. The value of the Increment is calculated based on the values of the Application/Services and Requirements, as stated in the SSS, scheduled for those two Increments.

12.3 This does not imply the Contractor is automatically due the value of the next two Increments following a Termination for Convenience; this simply limits the liability of the Purchaser in this situation.

## 13 LIQUIDATED DAMAGES

13.1 This Article replaces Clause 38 of the Contract General Provisions.

13.2 If the Contractor fails to obtain acceptance of the delivered Requirements prior to the completion of Phase 1 and/or prior to FSA, the actual damage to the Purchaser for the delay or non-delivery will be difficult or impossible to determine. Therefore, in lieu of actual damages the Contractor shall pay to the Purchaser liquidated damages as explained below.

13.3 For any Requirement listed in the SSS that has not been accepted at two designated points: 1) Four weeks after the Incentive Milestone date; and 2) FSA; the Purchaser may asses liquidated damages in the amount of one-tenth of one per cent (0.1%) of the value of that sub-CLIN as set forth in the SSS per day of delinquent delivery/performance.

- For example, if a Requirement has not been accepted by one of the two designated points (as described above) which has a stated value of €10,000 in the SSS, the Purchaser could allow the Contractor to complete work on this Requirement. If this Requirement was accepted 60 days after Phase 1 and/or FSA, the liquidated damages would be calculated as: €10,000 x 0.1% x 60 days = €600. Following Acceptance, the payment due to the Contractor for that Requirement would then be €10,000 – €600 = €9,400.

13.4 Alternatively, at FSA, the Purchase may declare that Requirement permanently "non-delivered" and asses liquidated damages of 10% of the value of that Requirement. This Requirement would then no longer be required and would no longer be eligible for Acceptance.

- For example, for a Requirement that was not accepted at FSA, which has a stated value of €10,000 in the SSS, the Contractor would be obligated to pay to the Purchaser €1,000 and that Requirement would no longer be eligible for acceptance and payment.

13.5 In addition, the Purchaser may terminate this Contract in whole or in part, as provided in paragraph 39.1 of Clause 39 – "Termination for Default" of the Contract General Provisions and in that event the Contractor shall be liable to pay the excess costs provided in paragraph 39.5.

13.6 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 paragraph 39.6 of Clause 39 – "Termination for Default" of the Contract General Provisions. In such event, subject to the Disputes and Arbitration Clause, 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 fact justify an extension.

13.7 The amount of Liquidated Damages and/or Penalty due by the Contractor shall be recovered by the Purchaser in the following order of priority:

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

13.7.2 By proceeding against any surety, such as a performance guarantee.

13.7.3 By reclaiming such damages through appropriate legal remedies.

13.8 Liquidated damages shall be payable to the Purchaser from the first day of delinquency and shall accrue at the rate specified in Clause 13.3 up 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.

13.9 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.

## 14 CONTRACT ADMINISTRATION

14.1 The Purchaser is the NATO Communications and Information Agency (NCI Agency). The Purchaser is the Point of Contact for all Contractual and Technical issues. The Contractor shall accept Contract modifications only in writing from the Purchaser's Contracting Authority

14.2 Formal letters and communications shall be sent by email, or delivered in person, by registered mail, courier or other delivery service, to the official points of contact quoted in this Contract.

14.3 Informal notices and informal communication may be exchanged by any other means, including telephone.

14.4 All notices and communication shall be effective upon receipt.

14.5 Official Points of Contact are:

| **Purchaser** | |
|---|---|
| **Contractual Issues** | **Technical Issues** |
| NCI Agency<br>Boulevard Léopold III<br>B-1110 Brussels, Belgium<br>*Name*<br>*Phone*<br>*Email* | NCI Agency<br>Oude Waalsdorperweg 6<br>2597 AK The Hague, The Netherlands<br>*Name*<br>*Phone*<br>*Email* |
| **Contractor** | |
| **Contractual Issues** | **Technical Issues** |
| *Company*<br>*Address*<br>*Address*<br>*Name*<br>*Phone*<br>*Email* | *Company*<br>*Address*<br>*Address*<br>*Name*<br>*Phone*<br>*Email* |

## 15 PARTICIPATING COUNTRIES

15.1 This Article augments Clause 9 of the Contract General Provisions.

15.2 The Contractor may issue sub-contracts to firms and purchase from qualified vendors in any of the following 29 NATO participating nations: 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. None of the work, including project design, labour and services, shall be performed other than by firms from and within participating countries as per NATO policy.

15.3 The Contractor shall notify in writing to the Purchaser immediately upon being informed of any change in the nationality of its Sub-contractor(s) which would prevent the Contractor from further complying with Clause 15.2 above. Upon receipt of this information from the Contractor, the Purchaser may, within three months from this notification, require the Contractor to find an alternate subcontractor, complying with the requirements set out in Clause 15.2 above.

15.4 Unless authorised by NATO Policy, no material or items of equipment down to and including identifiable sub-assemblies delivered under this Contract shall be manufactured or assembled by a firm other than from and within a participating country.

15.5 The Intellectual Property Rights to all designed documentation and system operating software shall reside in NATO member countries, and no license fee, or royalty charges shall be paid by the Contractor to firms, individuals or governments other than within the NATO member community.

## 16 SECURITY

16.1 This Article augments Clause 11 of the Contract General Provisions.

16.2 The Contractor is responsible, in accordance with NATO and National Security regulations, for the proper handling, storage and control of any classified documents and information as may be furnished to the Contractor in relation to the performance of this contract. As such, the Contractor's premises shall be able to handle information up to NATO Restricted.

16.3 The security classification of this contract and its annexes is "NATO UNCLASSIFIED". However, the Contractor's technical personnel working on the Contract will need to access NATO SECRET data and therefore shall hold a valid NATO SECRET security clearance for the duration of the Contract. This access to NATO SECRET data shall occur only at NATO premises and never at the Contractor's own premises.

16.4 Contractor's personnel visiting or working at Purchaser's facilities in connection with this Contract shall hold a NATO SECRET security clearance valid for the duration of the Contract. This requirement applies to all subcontracts issued by the Contractor for the effort under this prime Contract.

16.5 It is the responsibility of the Contractor to ensure that its personnel obtain the required security clearances and transmit this information to the sites to be visited in adequate time that the site may perform the appropriate administration.

16.6 The Contractor is advised that the personnel security process may be lengthy. The Purchaser bears no responsibility for the failure of the Contractor to secure the required clearances for its personnel within the necessary time.

16.7 Failure of the Contractor to obtain proper security clearances to have access to any NATO sites, and any attendant delay in the project which results from this access refusal, is not the basis for excusable delay under the terms of the contract concerning default. The Contractor bears full responsibility and liability under the contract for delays arising from the failure of the Contractor to adhere to the security requirements.

16.8 If during the performance of the Contract, Contractor's personnel need to be escorted because of non-availability of the security clearance required by the Site, the Contractor shall pay to the Purchaser a compensatory fee of 800 Euro per day of escort.

16.9 In the absence of valid security clearances for the Contractor's personnel at contract signature, the Purchaser reserves the right to terminate the Contract for "Default".

16.10 The Contractor's facilities and personnel shall meet NATO security regulations to permit handling and storage of information classified up to and including NATO SECRET.

## 17 INTELLECTUAL PROPERTY

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

17.2 All Foreground IPR is the property of the Purchaser. Consequently, no statement shall be made restricting the rights of the Purchaser. All Foreground IPR are immediately and exclusively transferred and assigned to the Purchaser as from their coming into existence or, as the case may be, as from the conclusion of this Contract for rights already in existence at the time of execution of this Contract.

17.3 Any use by the Purchaser 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/or among NATO 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 purpose.

17.4 The Purchaser retains the right to redeploy the Software provided under the Contract within NATO for NATO purposes, and/or among NATO Nations for NATO purposes.

17.5 This licence shall also allow the Purchaser and its member nations to use and authorise others to use the software for further adaptation, integration, modifications and future procurements.

17.6 The Contractor intends to use the Background IPR stated in Contract Special Provisions - Annexes B and C hereto for the purpose of carrying out work pursuant to this Contract.

17.7 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.

17.8 In addition, regarding the Contractor’s Background IPR, the Purchaser shall have the right to further re-transfer this software (source code excluded) and associated documentation necessary and/or useful for use and integration, to companies eligible for other NATO procurements, subject to an appropriate license agreement. There shall be no additional charges or fees associated with this license agreement beyond the Firm Fixed Price of this contract.

17.9 Any use of Contractor and Third Party Background IPR as stated in Annexes B and C, 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 Annexes B and C for any number of users and number of licenses as required, at no additional cost to the Purchaser.

17.10 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 KEY PERSONNEL

18.1 The individuals listed in ANNEX B are considered to be key to the performance of this contract and may not be replaced by the Contractor with substitute personnel without the prior written approval of the Purchaser.

18.2 In such cases where the services of the Key Personnel are lost to the Contractor beyond the reasonable control of the Contractor, the Contractor must nominate a substitute(s) of equivalent or higher qualification and experience within 15 working days of the date at which the Contractor has knowledge of the loss of service of such key personnel. The replacement personnel shall be in place within 7 days of Purchaser approval.

18.3 If the Contractor is unable to nominate and/or replace the lost personnel within the timeframe mentioned in 18.2 above, the Purchaser may conclude that the loss of the Key Personnel endangers progress under the Contract to the extent that the Purchaser may resort to the Clause 39 – “Termination for Default” of the Contract General Provisions for redress of the situation.

18.4 The Purchaser shall approve the dedicated personnel, as well as the replacement personnel. The Purchaser has the right to refuse any proposed substitution as not meeting the qualifications and request the Contractor to offer another qualified individual in lieu thereof.

18.5 The Purchaser reserves the right to reject a Contractor’s staff member after acceptance of a Contractor’s staff member on the basis of his/her CV if 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 and make another staff member available within three working days after the written notification.

18.6 A Contractor’s staff member assigned to this Contract shall remain working on the Contract for as long as required by the terms of the Contract. However, in the event where the Contractor has no control over the individual’s non-availability (e.g., resignation, sickness, incapacity, etc.), the Contractor shall notify the Purchaser of a change of key personnel within working 3 days of the date of knowledge of the prospective vacancy and offer a substitute with equivalent qualifications.

18.7 Key Personnel are not necessarily required to work full-time in that position. Therefore, it is possible for an individual to fill more than one Key Personnel role at the same time, assuming the person is qualified to perform both roles.

## 19 SYSTEMS WARRANTY

19.1 This Article augments Clauses 27 and 31 of the Contract General Provisions.

19.2 Following FSA, the Contractor shall provide a one-year warranty for the supplies and services delivered under this Contract in accordance with the terms and conditions stipulated in Part IV - Statement of Work, Section 13, and Clauses 27 and 31 of the Contract General Provisions.

19.3 In the event of any inconsistency in language, terms or conditions with regards to warranty, the terms or conditions stipulated in Part IV - Statement of Work, Section 13 shall have precedence over Clauses 27 and 31 of the Contract General Provisions.

## 20 SOFTWARE WARRANTY

20.1 The Clause augments Clause 31 of the Contract General Provisions.

20.2 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 declared in writing by the Purchaser's Contracting Authority.

## 21 PURCHASER FURNISHED ITEMS

21.1 This Clause supplements Clause 13 (Purchaser Furnished Property and Services) of the General Contract Provisions.

21.2 The Purchaser will provide the Contractor with the property and services for the performance of the Contract as specified in Section 1.5 of the SOW.

21.3 As specified in Section 2.4.1 of the SOW, the Contractor shall develop software in the NATO Software Factory (NSF). The Purchaser will provide the Contractor with a set of user accounts in the NSF.

## 22 SOFTWARE LICENSES

22.1 Any software licenses purchased on behalf of or provided to the Purchaser by the Contractor shall be perpetual licenses. In the event a perpetual license model is not available for a particular software product, the Contractor shall request written approval from the Purchaser in advance.

22.2 Any software licenses the Contractor purchases on behalf of the Purchaser, and/or transfers or provides to the Contractor shall provide the same usage rights as required by Article 17. The Contractor shall ensure that any software licenses that will ultimately need to be assigned to the Purchaser can be done so at no additional cost.

22.3 The Purchaser reserves the right to exclude from the awarded Contract the purchase of software licenses which the Purchaser may procure through centralized Contracts. In this case, the contract terms, schedule and prices will be modified accordingly, and the software licenses will be provided to the Contractor in the form of "Purchaser Furnished Items".

## 23 PRICING OF CHANGES, MODIFICATIONS, FOLLOW-ON CONTRACTS AND CLAIMS

23.1 This Article augments Clause 19 of the Contract General Provisions.

23.2 The Purchaser may at any time, by written order designated or indicated to be a change order, and without notice to the sureties, if any, make changes within the scope of any Contract or Task Order, in accordance with Clause 16 (Changes) of the Contract General Provisions.

23.3 Changes, modifications, follow-on Contracts of any nature, and claims shall be priced in accordance with Clause 19 (Pricing of Changes, Amendments and Claims) of the Contract General Provisions, and with the "Purchaser's Pricing Principles" as set out in the Annex to the Contract General Provisions.

23.4 Contractor price quotations for 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 submission.

23.5 The pricing information contained in the cost breakdown sheets submitted with the Bidding sheets, as part of the Contractor’s proposal, and especially the forward labour rates provided, will constitute the basis for any future negotiations related to possible future amendments to this Contract.

## 24 ACCEPTANCE OF DESIGN DOCUMENTATION

24.1 This Article augments Clause 22 of the Contract General Provisions.

24.2 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.

## 25 INDEMNITY

25.1 The Contractor will indemnify and hold harmless NATO, its servants or agents, against any liability, loss or damage arising out of or in connection of the Supplies and Services under this Contract.

25.2 The parties will indemnify each other against claims made against the other by their own personnel, and their sub-Contractors (including their personal representatives) in respect of personal injury or death of such personnel or loss or destruction of or damage to the property of such personnel.

25.3 NATO will give the Contractor immediate notice of the making of any claim or the bringing of any action to which the provisions of this Article may be relevant and will consult with the Contractor over the handling of any such claim and conduct of any such action and will not without prior consultation and without the consent of the Contractor settle or compromise any such claim or action.

25.4 In the event of an accident resulting in loss, damage, injury or death arising from negligence or wilful intent of an agent, officer or employee of NATO for which the risk has been assumed by the Contractor, the cause of the accidents will be investigated jointly by the Parties and the extent to which NATO will be liable to recompense the Contractor will be determined together.

## 26 PLACE AND TERMS OF DELIVERY

26.1 This Article replaces Clause 20.1 of the Contract General Provisions.

26.2 All deliverables under this Contract shall be delivered DDP ("Delivered Duty Paid") as defined by the INCOTERMS published by the International Chamber of Commerce (Publication No. 560) to the places and at such times as stipulated in the Schedule of Supplies and Services. The Contractor shall note that the Purchaser is exempt from customs duties and Value Added Tax as per Clause 26 – "Taxes and Duties" of the Contract General Conditions.

## 27 SUPPLEMENTAL AGREEMENT(S), DOCUMENTS AND PERMISSIONS

27.1 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 Clause 29 – "Termination for Default" of the Contract General Conditions.

27.2 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.

## 28 COMPREHENSION OF CONTRACT AND SPECIFICATIONS

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

28.2 The specifications set forth the performance requirements for the Contractor's proposed work as called for under this Contract. Accordingly, notwithstanding any conflict or inconsistency which hereafter may be found between achievement of the aforesaid performance requirements and adherence to the Contractor's proposed design for the work, the Contractor hereby warrants that the work to be delivered will meet or exceed the performance requirements of the said specifications.

28.3 The Contractor hereby acknowledges that he has no right to assert against the Purchaser, its officers, agents or employees, any claims or demands with respect to the aforesaid specifications as are in effect on the date of award of this Contract:

- 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.

28.4 Notwithstanding the "Changes" Clause or any other Clause of the Contract, the Contractor hereby agrees that no changes to the aforesaid specifications which may be necessary to permit achievement of the performance requirements specified herein for the Contractor's proposed work shall entitle the Contractor either to any increase in the 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.

## 29 PURCHASER RIGHT TO CONTRACT WITH THIRD PARTIES IN CASE OF CONTRACTOR DEFAULT

29.1 This Clause supplements Clause 39 (Termination for Default) of the Contract General Provisions.

29.2 In the event that the Contractor fails to deliver or make progress on the provision of any components of this project in accordance with the milestones and delivery dates stipulated in the SSS and SOW, and is notified by the Purchaser in writing that the Contractor is in a state of default in accordance with Clause 39 of the Contract General Provisions (Termination for Default), the Purchaser reserves the right to enter directly into contracts with any third party, including commercial entities, and Contractor's Subcontractors for provision of the Contract Work Package.

29.3 The provisions of this Article are in addition to and in no way limit the rights of the Purchaser contained in other applicable clauses of this Contract, including but not limited to, Clause 21 (Inspection and Acceptance of Work) and Clause 39 (Termination for Default) of the Contract General Provisions.

## 30 EXPORT AGREEMENT AND LICENSE

30.1 It is the Contractor's responsibility to ensure compliance with all relevant or necessary national export provisions in executing the work under this contract. Copies of the documentation will be supplied to the Purchaser on request.

## 31 INDEPENDENT CONTRACTOR

31.1 The Personnel provided by the Contractor are at all times employees of the Contractor and not the Purchaser. In no case shall Contractor personnel act on behalf of or as an agent for NATO or any of its bodies. In no way shall the Contractor personnel claim directly or indirectly to represent NATO in an official capacity or claim themselves to be NATO employees.

31.2 The Purchaser shall not be responsible for securing work permits, lodging, leases nor tax declarations, driving permits, etc., with national or local authorities. Consultants employed under this Contract are not eligible for any diplomatic privileges or NATO employee benefits.

## 32 FORCE MAJEURE

32.1 If the performance of this Contract, or any obligation hereunder is prevented, restricted or interfered with by reason of fire, flood, earthquake, explosion or other casualty or accident, strikes or labour disputes, war or other violence, including acts of terrorism, any law, order, proclamation, regulation, ordinance, demand or requirement of any governmental agency, or any other act, event or condition whatsoever beyond the reasonable control of the affected Party, the Party so affected, upon giving prompt notice to the other Party, shall be excused from such performance to the extent of such prevention, restriction or interference, provided, however, that the Party so affected shall take all reasonable steps to avoid or remove such cause of non-performance and shall resume performance hereunder with dispatch whenever such causes are removed.

## ANNEX A. RESPONSIBILITY OF THE CONTRACTOR TO INFORM EMPLOYEES OF WORK ENVIRONMENT

A.1. The Contractor shall inform his employees under this Contract of the terms of the Contract and the conditions of the working environment.

A.2. Specifically, personnel shall be made aware of all risks associated with the performance under this Contract, the conditions of site in which the performance is to take place and living conditions while performing within the boundaries of the Contract. The selection of adequate personnel shall remain sole responsibility of the Contractor.

# ANNEX B. KEY PERSONNEL

**a.** The following Key Personnel shall be subject to the stipulations contained in Clause 18 (Key Personnel) of the Contract Special Provisions for the period of designation indicated below:

| Position | SOW Reference | Labour Category | Name | Designation Period |
|---|---|---|---|---|
| Project Manager | 2.1.2 | *[To be inserted prior to Contract award]* | *[To be inserted prior to Contract award]* | EDC through End of Contract |
| Quality Assurance Manager | 2.1.2 | *[To be inserted prior to Contract award]* | *[To be inserted prior to Contract award]* | EDC through End of Contract |
| Configuration Manager | 2.1.2 | *[To be inserted prior to Contract award]* | *[To be inserted prior to Contract award]* | EDC through End of Contract |
| Technical Lead | 3.1 | *[To be inserted prior to Contract award]* | *[To be inserted prior to Contract award]* | EDC through End of Contract |
| Scrum Master | 3.1 | *[To be inserted prior to Contract award]* | *[To be inserted prior to Contract award]* | EDC through End of Contract |
| Software Architect *(applies only to the Back-end contract)* | 3.1 | *[To be inserted prior to Contract award]* | *[To be inserted prior to Contract award]* | EDC through End of Contract |
| Test Director | 3.1 | *[To be inserted prior to Contract award]* | *[To be inserted prior to Contract award]* | EDC through End of Contract |
| Lead SW Developer 1 | 3.1 | *[To be inserted prior to Contract award]* | *[To be inserted prior to Contract award]* | EDC through End of Contract |
| Lead SW Developer 2 | 3.1 | *[To be inserted prior to Contract award]* | *[To be inserted prior to Contract award]* | EDC through End of Contract |

# 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[1] |
|---|---|---|
| | | |
| | | |
| | | |
| | | |
| | | |
| | | |
| | | |
| | | |

**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 17 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[1] |
|---|---|---|
| | | |
| | | |
| | | |
| | | |
| | | |
| | | |
| | | |
| | | |

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 17 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.

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

# IFB-CO-14873-INTELFS2

## Intelligence Functional Services (INTEL-FS) - Spiral 2 and BMD functions in INTEL-FS

PART III

CONTRACT GENERAL PROVISIONS

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16. CHANGES

17. STOP WORK ORDER

18. CLAIMS

19. PRICING OF CHANGES, AMENDMENTS AND CLAIMS

20. NOTICE OF SHIPMENT AND DELIVERY

21. INSPECTION AND ACCEPTANCE OF WORK

22. INSPECTION AND ACCEPTANCE OF DOCUMENTATION

23. USE AND POSSESSION PRIOR TO ACCEPTANCE

24. OWNERSHIP AND TITLE

25. INVOICES AND PAYMENT

26. TAXES AND DUTIES

27. WARRANTY OF WORK (EXCLUSIVE OF SOFTWARE)

28. RIGHT OF ACCESS, EXAMINATION OF RECORDS

29. PATENT AND COPYRIGHT INDEMNITY

30. INTELLECTUAL PROPERTY

31. SOFTWARE WARRANTY

32. NATO CODIFICATION

33. RELEASE FROM CLAIMS

34. ASSIGNMENT OF CONTRACT

35. TRANSFER AND SUB-LETTING

36. PURCHASER DELAY OF WORK

37. CONTRACTOR NOTICE OF DELAY

38. LIQUIDATED DAMAGES

39. TERMINATION FOR DEFAULT

40. TERMINATION FOR THE CONVENIENCE OF THE PURCHASER

41. DISPUTES

42. ARBITRATION

43. SEVERABILITY

44. APPLICABLE LAW

ANNEX: PURCHASER'S PRICING PRINCIPLES

## 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. AUTHORITY

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