Acquisition
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NCIA/ACQ/16/1035
05 April 2016

To: See Attached Distribution List

From: The General Manager, NATO Communications and Information Agency (NCI Agency)

Subject: **AMENDMENT 1 TO INVITATION FOR BID NO. IFB-CO-14150-SMC-TA**

Provision of SMC Target Architecture for Implementation of Enterprise Wide End-to-End SMC Capability

Reference: A. NCI Agency IFB-CO-14150-SMC-TA, issued 1 March 2016

Prospective Bidders:

1. The purpose of this Amendment 1 is to publish the responses to the Clarification Requests (CRs A1-A8, P1-P7 and T1-T92 – Attachment 1) and to amend the subject IFB (Attachments 2-5).

2. **THE CLOSING TIME FOR SUBMISSION OF BIDS IN RESPONSE TO THIS INVITATION FOR BID IS HEREWITH EXTENDED BY 2 WEEKS AND IS NOW 14:00 HOURS (BRUSSELS TIME) ON 26 APRIL 2016.**

3. As a direct or indirect result of these CRs, Book I: Bidding Instructions (Attachment 2), Bidding Sheets (Attachment 3), Book II, Schedule of Supply and Services (Attachment 4), and the Statement of Work (Attachment 5) have been amended and are re-issued in their entirety. The requested reference documents are included in this Amendment. (Attachment 6). Potential bidders are strongly advised to carefully review the revised bidding documents.

4. With the exception of the revisions mentioned above, all other IFB documents remain unchanged from their original version as issued on 1 March 2016.

5. The overall security classification of this IFB is “NATO UNCLASSIFIED”.

6. Prospective Bidders are requested to complete and return the enclosed Acknowledgement of Receipt within 10 days of receipt.

NATO Communications and Information Agency
Agence OTAN d’information et de communication
Avenue du Bourget 140
1140 Brussels, Belgium
www.ncia.nato.int

7. This Invitation For Bid and any Amendment thereto remains the property of the NCI Agency and shall be protected in accordance with the applicable national security regulations.

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

9. Prospective Bidders are advised that the NCI Agency reserves the right to cancel, withdraw, or suspend 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, withdrawal, or suspension occurs.

10. Ms Sarah Hazebroek is the sole Agency point of contact for this procurement and may be reached via e-mail: Sarah.Hazebroek@ncia.nato.int.

FOR THE GENERAL MANAGER:

[*Original Signed By*]

L.T. Herway
Chief Of Contracts

ATTACHMENT A

ACKNOWLEDGEMENT OF RECEIPT OF INVITATION FOR BID – AMENDMENT 1

IFB-CO-14150-SMC-TA – Amendment 1

Please complete and return within 10 days after receipt of the IFB AMENDMENT 1 (via e-mail to sarah.hazebroek@ncia.nato.int and werner.goos@ncia.nato.int):

We hereby advise that we have received Amendment 1 to Invitation for Bid **IFB-CO-14150-SMC-TA** on_____, together with all enclosures listed in the Table of Contents.

CHECK ONE

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

{ } We do not intend to submit a bid.

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

Signature: _____

Printed Name: _____

Title: _____

Company: _____

Address: _____

Distribution List For
RFQ-CO-14150-SMC-TA AMD 1

Prospective Bidders (sent separately in electronic version)

All NATO Delegations (Attn: Infrastructure Adviser) (Except Albania and Croatia).

Embassies in Brussels (Attn: Commercial Attaché):

Bulgaria
Canada
Czech Republic
Denmark
Estonia
France
Germany
Greece
Hungary
Italy
Latvia
Lithuania
Luxembourg
The Netherlands
Norway
Poland
Portugal
Romania
Slovakia
Slovenia
Spain
Turkey
United Kingdom
United States (electronic copy to brussels.office.box@mail.doc.gov)

NATO HQ

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

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

SACTREPEUR
Att: Infrastructure Assistant

IFB-CO-14150-SMC-TA – AMENDMENT 1

RESPONSES TO CLARIFICATION REQUESTS

ADMINISTRATION or CONTRACTING			
Serial NR	**IFB REF**	**QUESTION**	**ANSWER**
A.1	3.6.2.1.2.17	All key personnel has to possess NATO Secret clearances by Bid submission although they won't have access to NATO sites before contract signature. Therefore we ask for the following amendment of this REF: The Bidder shall provide evidence that clearly shows that all key personnel possesses NATO Secret clearances by contract signature which are valid during the entire project.	The technical envelope of the bid should contain evidence that clearly shows that all key personnel possesses NATO Secret clearances by Contract award. In accordance with paragraph 1.5.4 of the Bidding Instructions, Bidders are advised that contract signature will not be delayed in order to allow the processing of security clearances for personnel or facilities and, should the otherwise successful Bidder not be in a position to accept the offered Contract within a reasonable period of time, due to the fact that its personnel or facilities do not possess the appropriate security clearance(s), the Purchaser may determine the Bidder's Offer to be non-compliant and offer the Contract to the next ranking Bidder. In such a case, the Bidder who would not sign the Contract, shall be liable for forfeiture of the Bid Guarantee. The Bidding Instructions will be amended accordingly.
A.2	Bidding Instructions Section 1.5 Security 1.5.3	The national NSA policy which dictates the procedure for facilities clearance identifies that this is issued on a per project basis. Based on this will the purchaser accept a letter which identifies a facilitiies clearance will be issued by the national authority upon contract award?	Yes, the Agency reiterates as per Certificate B-13 that the "Contractor shall have the appropriate facility and personnel clearances at the time of Contract award."

ADMINISTRATION or CONTRACTING			
Serial NR	**IFB REF**	**QUESTION**	**ANSWER**
A.3	Bidding Instructions Section 3.6. Technical Proposal Package 3.6.2.1.2.17 and Section 4.5. Evaluation Step 3 - Technical Evaluation 4.5.3.5. and Statement of Work Section 2.1 PM-7	The bidding instructions and SOW state a minimum of NATO Secret security clearance is "valid for the whole duration of the duration of the prospective Contract". Some NSA's do not permit a renewal for a PSC with more than 6 months validity left on the current certificate, a renewal in these cases is a formality and no interruption in cover would be experienced Therefore would the purchaser accept a consultant that has an expiry date within the project term when there is sufficient time to renew the clearance?	Yes, however, in accordance with Article 17 "Security" of the Contract Special Provisions, 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.
A.4	Statement of Work Section 2.1, PM-2 and Book I	The SOW section 2.1 PM-2 identifies: - Project Manager (PM), - Architecture Lead (AL), - Implementation Lead (IL), - SMC Project Portfolio Manager (SPPM), as part of the contractors key personnel. The Book I Bidding instructions Annex B-12 List of Proposed Key Personnel, in addition to the above,	Yes, team members are not considered as part of contractor's key personnel. Annex B-12 is amended accordingly.

ADMINISTRATION or CONTRACTING			
Serial NR	**IFB REF**	**QUESTION**	**ANSWER**
	Bidding instructions Annex B-12	identifies the Implementation Team Members as part of the Key Personnel. Can the Purchaser please confirm that the Implementation Team Members are not considered as part of contractor's key personnel staff?	
A.5	Bidding Instructions Section 3.6.2.1.2.2	The bidding instructions state that each of the Key Personnel shall be in the possession of CEFR C1 or equivalent English Language Certificates. Can the Purchaser please confirm that in the absence of an equivalent English Language Certificate, an education degree where the studies have been fully completed in English language will be considered acceptable? This has been the case with other IFB's from the purchaser.	See T.1
A.6	Book I, Section 3.5.1.1.1.	Can we please receive ANNEX B (Prescribed Administrative Forms and Certificates) and ANNEX C (Bid Guarantee - Standby Letter of Credit) of the Bidding Instructions in editable MS Word format for easier editing and signing?	The MS Word versions of Annexes A-2 through D were provided with the release of the IFB. They are distributed with this Amendment 1 to the IFB.

ADMINISTRATION or CONTRACTING			
Serial NR	**IFB REF**	**QUESTION**	**ANSWER**
A.7	Book I, Annex A-2, IFB/Bid Cross-Reference Sheets	This table includes a lines described as "Configuration Management Plan" and another line described as "Draft Configuration Management Plan". Can we consider them to be the same bid deliverable, the Draft Configuration Management Plan?	Please submit the Draft Configuration Plan as a separate deliverable.
A.8	Annex B-14 (Book I page I 20, section 3.4.3.14)	The annex B-14 with title "reserved". Could you please clarify its purpose?	Its purpose is to be a placeholder for possible additional certificates. Not applicable in Amendment 1 to this IFB.

PRICE			
Serial NR	**IFB REF**	**QUESTION**	**ANSWER**
P.1	Book I – Bidding Instructions and Bidding sheets	We are not able to enter separate pricing for CLIN items 3.1 to 3.7 because the cost elements, in our opinion, should be included in the deliverables under CLIN item 2. Please advise if this is intentional.	CLIN items 3.1 through 3.7 are not to be priced separately and are marked NSP through Amendment 1 to the IFB. (NSP = Not separately priced). The Bidding sheets and Schedule of Supplies are amended accordingly.
P.2	Book I Bidding Sheets CLIN 1.2 to 1.6	Can the purchaser please clarify which quantity should be used for CLIN's 1.2 to 1.6 in order to calculate the total fixed firm price for the CLIN?	CLIN 1.2 to 1.6 are documents that will be updated monthly before Project Checkpoint Meetings until FSA. Therefore at least 16 versions of those deliverables are expected.
P.3	Book I Bidding Sheets CLIN 3.6	Please clarify whether this is "Site" or "System" acceptance?	Provisional System Acceptance. The Bidding sheets and Schedule of Supplies are amended accordingly.
P.4	Book I, Annex A, Section 2.	This section states: "*The Bidding Sheets are contained in the electronic file "03_IFB-CO-14150-SMCTA_Book I_Bidding Sheets.xlsx" submitted as part of this IFB.*" Can we please receive the Bidding Sheets in Excel format? We have received the entire IFB as one PDF file.	The Bidding sheets in Excel format were provided with the release of the IFB. They are distributed with this Amendment 1 to the IFB.
P.5	General	No Ceiling Price can be found in the IFB. Is the purchaser willing to provide one?	No.
P.6	Book I page I-21 section 3.5.2.8.	In reference to the Price Quotation instructions. In case we have a consortium with a relevant participation of a subcontractor we are required	The IFB reference should state the following: Book 1, Page I-20, Section 3.5.

PRICE			
Serial NR	**IFB REF**	**QUESTION**	**ANSWER**
		to detail their activities, is there any requirements on the presentation of this detail? should we use an specific form for this?	The details of the subcontractor activities can be presented in the 'List of Subcontractors/Consortium Members", located in Annex B-8 in the Book I Bidding Instructions. The wording of Annex B-8 is amended accordingly.
P.7	Bidding Sheets, line 2.2.	The lines to reflect the pricing of the licenses are only including the ITSM Remedy. In case the final solution will require the inclusion of ESB solution or other components, how should be reflected?	Since the products and configuration related to CLIN 2.3.5 and 2.3.6 are based on bidders proposed design, the cost of licenses should be costed in those CLINs. Please provide cost detail for licenses for each proposed solution in the individual CLIN item tab 2 of the Bidding Sheets.

TECHNICAL			
Serial NR	**RFQ REF**	**QUESTION**	**ANSWER**
T.1	3.6.2.1.2.2	All Contractor's personnel engaged in this project and playing a role that involves any interaction with the Purchaser and/or contribution of any written deliverables shall have a thorough knowledge of the English language. Each of the Key Personnel, as identified in Section 2.5, employed on this project shall be in the possession of CEFR C1 or one of the following equivalent certificates: - Meaning of CEFR C1 - Effective Operational Proficiency - The ability to communicate with the emphasis on how well it is done, in terms of appropriacy, sensitivity and the capacity to deal with unfamiliar topics. Example: CAN deal with hostile questioning confidently. CAN get and hold onto his/her turn to speak. Would evidence of a UK Education qualification address this requirement eg English GCSE, GCE, CSE qualification?	The requirement is amended as follows, Bidding Instructions will be amended accordingly: PM-66 All Contractor‘s key personnel shall have a thorough knowledge of the English language. Each of the Key Personnel, as identified in Section 2.5, shall prove their ability to effectively communicate in English either by providing the following certificates or by having Bachelor’s Degree from an institution with English as the language of instruction: a. CEFR C1. b. Test of English as a Foreign Language (TOEFL) Internet-based Test (iBT) with minimum score of 80. c. Cambridge English Language Assessment CPE CAE grade B or C / FCE grade A. d. ELTS with minimum score of 6 points. Yes, UK education qualification is accepted as a proof of language proficiency.

TECHNICAL			
Serial NR	**RFQ REF**	**QUESTION**	**ANSWER**
T.2	3.6.2.1.2.12	The AL shall have at least Intermediate Level ITIL v3 certification. Can this requirement be met by evidencing Internal Company processes which align to the expected industry qualification and have defined training criteria?	No. Architecture lead shall have Intermediate Level ITIL v3 certification.
T.3	3.6.2.1.2.13	The AL shall have official TOGAF 9 certificate. Can this requirement be met by evidencing Internal Company processes which align to the expected industry qualification and have defined training criteria?	No. Architecture lead shall have official TOGAF 9 certification.
T.4	IFB-CO-14150-SMC-TA-Book 2	After a quick scan of the documents, we saw that the work is about implementing a solution which has already been chosen. Is it correct that the BMC Remedy solution has been chosen by NATO as the platform, which needs to be integrated and maintained, or is the platform choice still open?	ITSM Atrium CMDB and Remedy Suite is current platform implemented for Incident Management, Change Management, Service Request Management, Service Asset and Configuration Management. The only constraint for the bidders to use BMC ITSM modules are CLIN 2.1.4 and 2.1.5. For the other implementation deliverables bidders are free to offer any tool fulfilling requirements. However SMC Target Architecture is technology and vendor agnostic.
T.5	SOW	Can you advise how I might get copies of the following reference documents in respect to the SMC-TA IFB? AC/322-N(2014)0120-REV1, NATO ICT Service Management Policy. AC/322-D(2015)0030, NATO (C3) Enterprise	Only the following 4 documents are required for bidding and are herewith provided to the Bidders as enclosed documents to IFB-CO-14150-SMC-TA Amendment 1. a. NCIA IT Change Management Process Definition and Execution Document, 08 October 2015

TECHNICAL			
Serial NR	**RFQ REF**	**QUESTION**	**ANSWER**
		Architecture Policy. NATO Architecture Framework, version 3 3-AC/322-N(2012)0092 , "C3 Taxonomy,", June 2012. NATO FMN Implementation Plan: C-M(2015)0003-AS1, dated 30 JAN 15 NCIA IT Change Management Process Definition and Execution Document, 08 October 2015 NCIA Request Fulfilment Process Definition and Execution Document, 29 NOV 2014 RD 3143 - SIP Proposal - Messaging Profile v.1.1 CS SL Catalogue of Security Settings, Installation Guides and Configuration Guidelines. V1.4, December 2015 AC/35-D/1014-REV3; - Guidelines for the Structure and Content of Security Operating Procedures (SecOPs) for CIS, 31 January 2012. AC/35-D/1021-REV3 ,Guidelines for the Security Accreditation of Communication and Information Systems (CIS), 31 January 2013 ACMP-1 NATO Requirements do the Preparation of Configuration Management Plans, 27 February 2007 ACMP-2 NATO Requirements for Configuration Identification, 27 February 2007 ACMP-3 NATO Requirements for Configuration Control-Engineering Changes, Deviations and Waivers, 27 February2007 ACMP-4 NATO Requirements for Configuration	b. NCIA Request Fulfilment Process Definition and Execution Document, 29 NOV 2014 c. RD 3143 - SIP Proposal - Messaging Profile v.1.1 d. AC/322-D(2015)0030, NATO (C3) Enterprise Architecture Policy.

TECHNICAL			
Serial NR	**RFQ REF**	**QUESTION**	**ANSWER**
		Status Accounting and Configuration Data Management, 27 February 2007	
T.6	Book II, Part IV, SoW 1.4	Please clarify whether all the applicable documents will be made available by the Purchaser within the frame of this bid?	See T.5
T.7	Book II, Part IV, SOW 3.4 PM-119	Please clarify what hosting costs the Purchaser envisages it is possible to estimate in the absence of performance, capacity and functionality requirements?	In order to allow bidders to properly estimate the required capacity for the events and performance data flows, sections 4.4.2.1 and 4.4.2.2 have been amended with event volume estimates and retention policies.
T.8	Book II, Part IV, SOW 3.4 PM-121	Please clarify whether the first year of the implementation "begins" at Gate 5, Gate 6 or Gate 7?	The first year of implementation starts at the time when the Contractor starts installing the software to Purchaser's infrastructure. It is right after Gate 2, Design Acceptance of Implementation Deliverables.
T.9	Book II, Part IV, SOW 4.3.5.3	Please clarify the characteristics that the purchaser would perceive are provided in a "modern platform"?	Modern platform is used as a synonym for current, based on industrially accepted standards, fit for purpose tools as opposed to current legacy, in-house developed NNCS tools.

TECHNICAL			
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T.10	Book II, Part IV, SOW 4.3.5.3	Please clarify the characteristics that the purchaser would perceive are provided in a "modern end-2-end service level reporting capability"?	Modern platform is used as a synonym for current, based on industrially accepted standards, fit for purpose tool. End-2-end service level reporting means that the system shall provide service level reporting based on end-to-end KPIs.
T.11	Book II, Part IV, SOW 4.4	Please clarify the characteristics that the purchaser would perceive are provided in a "modern COTS toolset"?	Modern platform is used as a synonym for current, based on industrially accepted standards, commercial of the shelf.
T.12	Book II, Part IV, SOW 4.4.2, Figure 11	Please clarify the relevance of the "Service Management Data Warehouse" in this diagram and demonstrate where related integration requirements are described in the SoW?	In order to provide SLA reporting for the selected 4 services, particular KPIs can be calculated or gathered from the Incident Management System (BMC Remedy) which is accessible through Data Warehouse via standard interfaces (XML). Therefore the SLM system is expected to pull process performance related data from the DWH.
T.13	Book II, Part IV, SOW 4.4.2, IR-14	Please clarify where the "Network and firewall setups" are described in the SoW?	NATO CIS Security directive mandates particular network and firewall settings to be done for servers providing services. All these settings shall be done by Purchaser's respective teams.
T.14	Book II, Part IV, SOW 4.4.2.1	Please clarify where the expected volume and size of event data are described in the SoW?	See T.7

TECHNICAL			
Serial NR	**RFQ REF**	**QUESTION**	**ANSWER**
T.15	Book II, Part IV, SOW 4.4.2.2.1	Please clarify where the expected volume and size of event data are described in the SoW?	See T.7
T.16	Book II, Part IV, SOW 4.4.2.2.2	Please clarify where the expected volume and size of event data are described in the SoW?	See T.7
T.17	Book II, Part IV, SOW 4.4.2.2.3	Please clarify where the expected volume and size of event data are described in the SoW?	See T.7
T.18	Book II, Part IV, SOW 4.4.2.2.4	Please clarify where the expected volume and size of event data are described in the SoW?	See T.7
T.19	Book II, Part IV, SOW, 1.2	Can the purchaser confirm that the System Architect extensions for NAF and TOGAF meet the requirements of NATO C3 policy for NAF v3.0 and TOGAF 9.1?	Yes. See amended PM-118 The Purchaser is currently using IBM Rational System Architect (RSA) 11.4.3.4 for architecture development. The Contractor shall use this tool on NATO Restricted (NR) and NATO Unclassified (NU) domains to develop Architecture deliverables defined in Section 4.3.Followng add-ons are available for use of Contractor's

TECHNICAL			
Serial NR	**RFQ REF**	**QUESTION**	**ANSWER**
			team: a. IBM Rational System Architect for DoDAF Add-on b. IBM Rational System Architect for NAF Add-on c. IBM Rational System Architect Publisher Add-on
T.20	Book II, Part IV, SOW, 1.2	The purchaser has mandated System Architect 11.4.3.4, can the purchaser detail the NAF and TOGAF System Architect extension they are currently using?	See T.19
T.21	Book II, Part IV, SOW, AR-24	Can the purchaser confirm that the only TOGAF phases required are, P,A,B,C,D,E and R?	This is correct.
T.22	Book II, Part IV, SOW, Table 3	Can the purchaser confirm that all the 54 TOGAF artefacts are mandatory, or can the Contractor define a subset and/or alternative artefacts from our Model Based System Engineering (MBSE) approach?	The required artefacts are defined in detail in Table 3 "Required Architecture Views". As part of the initial phase the Purchaser is willing to consider well justified limited deviations from Table 3.
T.23	Book II, Part IV, SOW, AR-61	Can the purchaser confirm that all 15 NAF views are mandatory, or can the Contractor define a subset and/or alternative artefacts from our Model Based System Engineering (MBSE) approach?	The required artefacts are defined in detail in Table 3 "Required Architecture Views". As part of the initial phase the Purchaser is willing to consider well justified limited deviations from Table 3.

TECHNICAL			
Serial NR	**RFQ REF**	**QUESTION**	**ANSWER**
T.24	Book II, Part IV, SOW, AR-66	Can the purchaser confirm that all 15 NAF views are mandatory, or can the Contractor define a subset and/or alternative artefacts from our Model Based System Engineering (MBSE) approach?	As part of the initial design phase the Purchaser is willing to consider well justified limited deviations from AR-66.
T.25	Book II, Part IV, SOW, 4.3.5.3	Requirement AR-59-a is used twice for two separate requirements. Please indicate how the response should be referenced?	Numbering problem resolved. The SOW is amended accordingly.
T.26	Book II, Part IV, SOW, 4.5	Requirement PSR-2a is used twice for two separate requirements. Please indicate how the response should be referenced?	Numbering problem resolved. The SOW is amended accordingly.
T.27	Book II, Part IV, SOW, 4.4	Is IR-1 missing?	It is not missing it is an admin error. IRs start at IR-2.
T.28	Book II, Part IV, SOW, AR-64-a	Please define "open source standards" Does this mean open standards or standards related to open source if so please define these standards?	The SOW is amended as open standards.

TECHNICAL			
Serial NR	**RFQ REF**	**QUESTION**	**ANSWER**
T.29	Book II, Part IV, SOW, AR-64-c	Please define the level of change acceptable to be classed as non-disruptive?	Changes that won't impact on function, performance or security and can be tested. All change requests will be subject to Change Management process.
T.30	Book II, Part IV, SOW, Fig. 11	FTP is noted as a non-secure protocol. Can the Zyross tool support SFTP?	Zyross itself does not support SFTP but the Purchaser will setup SFTP service for the transaction of VTC logs. Bidders can assume this interface will be SFTP.
T.31	Book II, Part IV, SOW, Fig. 11	Cisco call manager manual transfer mechanism is not compatible with an event based approach. Is an additional adapter required to translate log dump to event feed?	Yes. It is expected that the Contractor provide an adapter to pull log dumps from Cisco Call Manager.
T.32	Book II, Part IV, SOW, Fig. 3	Is the CMDB noted in the diagram as BMC Atrium aligned with ITILv3?	Currently CMDB schema is used out-of-the box from BMC Atrium 7.6. In foreseeable future, it will be upgraded to 8.x
T.33	Book II, Part IV, SOW, Fig. 7	Please indicate whether the components between the security domains are basic data diodes or IEG's?	Figure 7 represents for a target state where full enterprise SMC picture can be seen in high domain. It is one of the tasks of this project to investigate the possibilities and determine the requirements for IEGs between security domains.

TECHNICAL			
Serial NR	**RFQ REF**	**QUESTION**	**ANSWER**
T.34	Book II, Part IV, SOW, AR-15	Please indicate whether these processes are implemented as defined by ITIL?	NATO accepted ITILv3 as the best practice for service delivery and support processes. NCI Agency is developing those processes in alignment with ITIL. However not all of them are in place in desired maturity yet. During Baseline Architecture workshops current maturity and planned maturity will be assessed. SMC TA shall be based on planned maturity on processes.
T.35	Book II, Part IV, SOW, 4.3.5.3	Is the intent to migrate the existing CAST+ to an ITIL aligned CMDB and corresponding processes?	The scope of this project is to migrate SRTS and CAMS functions into current ITSM suite. Also the contractor shall analyze CAST+ database that support NNCS applications to prepare a report for future migration.
T.36	Book II, Part IV, SOW, IR-8	Can we assume that the existing Remedy installation includes licensing for the required server modules to support migrated CM and RF modules?	Yes.
T.37	Book II, Part IV, SOW, IR-3	Does the definition of COTS from NATO include the use of Open Source Software?	Open Source Software can also be used as long as there enterprise level support provided by the vendors.
T.38	Book II, Part IV, SOW, IR-36	Can we assume that these are examples because some do not meet security requirements and others not listed may be required?	Required endpoints listed here are the minimum set. Not all of the listed protocols will be used for this project. They are reserved for future use.

TECHNICAL			
Serial NR	**RFQ REF**	**QUESTION**	**ANSWER**
T.39	Book I, Section 3.6.2.1.1.5	This section states that the PIP should a Project **Delivery** Schedule (PDS). In SoW Section 2.2.2 and in Annex A-2 of the Bidding Instructions, reference is made to a Project **Master** Schedule (PMS). What is required?	The Bidding instructions are amended as Project Master Schedule.
T.40	Book I, Section 3.6.2.1.1.1	This section states the PIP shall not exceed ten (20) A4 pages/sides. Does this page limit include the PWBS and the PDS/PMS which are part of the PIP?	Amended as "shall not exceed forty (40) A4 or A3 pages."
T.41	Book I, Section 3.6.2.1.2.2	The Certification of the English language is required at Bid Time or at Contract Award?	It is required at Bid time.
T.42	Book I, Section 3.6.2.1.2.3	The ITIL v3 certification in at least foundation level is required at Bid Time or at Contract Award?	It is required at Bid Time.
T.43	Book I, Section 3.6.2.1.2.9 and Book II, Part IV, SOW Section 2.5.2, PM-78	The bidding instructions indicates the IL needs to have demonstrated practical experience in **all** the mentioned products The SoW indicates the IL needs to have demonstrated practical experience in **at least two** of the mentioned products. Please clarify the correct amount.	Amended as "The IL shall have demonstrated practical experience in at least two of the following products: Microsoft System Centre, ESB products, Oracle Database, BMC ITSM Remedy supported by valid certification or extensive experience." The Bidding instructions and SOW are amended accordingly.

TECHNICAL			
Serial NR	**RFQ REF**	**QUESTION**	**ANSWER**
T.44	Book I, Section 3.6.2.1.2.10 and Book II, Part IV, SOW, Section 2.5.2, PM-81	The bidding instructions indicate that at least one team member per technical domain is required. The SOW does not require this, meaning one team member could cover multiple domains. On the other hand indicates vendor certifications are required for all technical domains which the Bidding Instructions do not require. Please clarify this inconsistency.	3.6.2.1.2.10 is amended as "The Implementation Team members shall have demonstrated practical expertise (at least 3 years) covering the following technical domains:" PM-81 amended as "The Implementation Team shall have vendor certifications or demonstrated practical expertise (at least 3 years) covering the following technical domains:" The Bidding instructions and SOW are amended accordingly.
T.45	Book I, Annex B-12 Book II, Part IV, SOW, Section 2.5.2	Annex B-12 of the Bidding Instructions and section 2.5.2 of the SOW include all the Implementation Team Members as "Key Personnel". Does this mean all general requirements for Key Personnel like level of the English language, ITIL certification, NATO Security Accreditation at bid time, etc., apply for all the Implementation Team Members?	Implementation team members are subjected to NATO Security Accreditation requirements and skillset requirements defined in SOW 2.5.2.
T.46	Book II, Part IV, SOW, Section 2.5, PM-66	Certified CEFR Level C1 of the English language for all Key Personnel, which seem to include the Implementation Team, seems excessive. Is certification mandatory?	See T.1.
T.47	Book II, Part IV, SOW, Section 4.1	"*Following table provides list of all deliverables and their start and delivery dates*" This table cannot be found.	This statement is removed and the SOW is amended accordingly.

TECHNICAL			
Serial NR	**RFQ REF**	**QUESTION**	**ANSWER**
T.48	Book II, Part IV, SOW, Section 3.4, PM-119	Does the cost for virtual machines include back-up and similar services?	Yes.
T.49	Book II, Part IV, SOW, Section 4.4.1.1	What percentage of the processes remains to be implemented on BMC ITSM?	Approximately %20 of the CAMS process remains to be implemented in ITSM Remedy Change Management Module. The remaining work will be guided and supported by Purchaser's ITSM tools team.
T.50	Book II, Part IV, SOW, Section 4.4.1.1	Have any migration tasks already been performed? What is the overall percentage of migrated data?	Most of the relevant data has been migrated. Workflows and reporting has not been completely implemented.
T.51	Book I, page I 25, section 3.6.2.2 and book I, page I 25, section 3.6.2.3	Considering that the project management part in the technical proposal should not exceed 20 A4 pages. Could confirm if you have specific requirements for the other sections; technical design and integrated logistics support?	No, limitations on remaining parts.
T.52	Book I, page	We haven't identified the need of providing details about company expertise in similar projects, please could you confirm if it is required?	No, it is not required.

TECHNICAL			
Serial NR	**RFQ REF**	**QUESTION**	**ANSWER**
T.53	Book I, page I-23, section 3.6.2.1.2.1 and book II PM-69, PM-79 and PM-87	In Book I, Page I-23, bullet 3.6.2.1.2.1 it is stated: "the bidder shall propose staff with supporting CV/resume for the key personnel positions and their alternatives: Project Manager (PM), Architecture Lead (AL), implementation lead (IL) and SMC Project Portfolio Manager. In Book II PM-69 "the contractor shall provide an alternate project manager as stand-in as backup"; PM-79 "the contractor shall provide an alternate implementation lead as stand-in as back-up" PM-87 "the contractor shall provide an alternate architecture lead as stand-in as back-up". So in Book II the backup of the SMC Project Portfolio Manager is not mentioned, could you clarify if there is a need to provide a backup for this profile?	The requirement is added. (PM-92) The SOW is amended accordingly.
T.54	Book II, page 119, AR-2	The AR-3 (SMC Architecture Principle) mentions that the TA should be vendor agnostic, but the point AR-12a ask for the best of breed selection of Solution Building Blocks from different vendors. We'd like to clarify the concept of "agnosticism" in this context. Should be consider vendor solutions for definition of the TA?, It is expected to mention al alternatives?	The requirement in 12a states that the SBB should be designed in a way that there are more than one product from multiple vendors to fulfil the requirements of that particular SBB. So we'll ensure that when we start implementing the architecture there will be more than one candidate product for that SBB. The architectural definition still will be vendor agnostic but the implementation of this architecture definition will be realizable.

TECHNICAL			
Serial NR	**RFQ REF**	**QUESTION**	**ANSWER**
T.55	Book II, page 121, AR-14	Figure 7 depicts the relations and communications of the different domains. In the NATO enterprise security domain, the line has two diode symbols, we understand that the communications are always allowed from less restricted secret to the most restricted secret domain but never on the other way around, please confirm.	See T.33.
T.56	Book II, page 121, AR-14	Figure 7 depicts the relations and communications of the different domains. In the governance domains there are some lines labelled as Federation which indicate that the communications between different management domains have to be allowed. But, Could you provide additional information or documentation about the architecture of Mission SMC and Nation SMC systems?	It is this projects objective to identify the data exchange requirements between NATO and Mission/National or Service Provider domains. All the required documentation will be provided during SMC BA and SMC TA workshops.
T.57	Book II, page 121, AR-14	Figure 7 depicts the relations and communications of the different domains. In the governance domains there are some lines labelled as Federation which indicate that the communications between different management domains have to be allowed. Could you please explain how the information is exchanged between them? (Allowing NATO Mission and NATO Nations to access to web page interface of NATO Enterprise applications, implement B2B interfaces to enable communications between systems, ...)	See T.56.

TECHNICAL			
Serial NR	**RFQ REF**	**QUESTION**	**ANSWER**
T.58	Book II, page 121, AR-14	Figure 7 depicts the relations and communications of the different domains. Within the governance domains, apart from NATO Enterprise, only appears SMC systems in SECRET and UNCLASSIFIED (Mission SMC, Nation SMC, External SMC), We understand that they are all the federations requested, please confirm.	These are the main SMC Federation use cases identified at this stage.
T.59	Book II, page 122, AR-15	This point list some processes and function which have to be covered in the target architecture. Could you please specify which processes have to be migrated or implemented? They have to be supported by the applications and modules listed in the point 4.3.5?	For clarification, the software named to be used for Implementation Deliverables defined in Section 4.4 should not be accepted as a baseline for SMC Target Architecture definition. SMC TA is totally vendor agnostic and will be implemented in 2022. The implementation deliverables are to address urgent requirements with the software that the Purchaser currently maintains. The processes to be implemented with tools identified in SOW 4.3.5 are clearly identified under the same section.
T.60	Book II, page 122, AR-23	The AR-23 mentions that SMC architecture shall cover the capabilities required, but it doesn't specify those capabilities. Can you confirm that all the external organizations and the service providers are SOA ready?	The SMC TA shall design the federation architecture (external interfaces) needed to operate the incident, request fulfilment, event, change, service level management processes in a multi provider environment.
T.61	Book II, page 124, AR-17	Could you clarify the concept of "manning plan" that is in the table 1, column "key inputs" from NCIA AGENCY Stakeholders group?	Definition of roles and an estimate of required manpower and skills per role.

TECHNICAL			
Serial NR	**RFQ REF**	**QUESTION**	**ANSWER**
T.62	Book II, page 134, AR-44	The AR-44 mentions that the Contractor shall either indicate reuse of the existing or develop a new CMDB Data Model. If it has been decided to develop a new CMDB data model. We understand that the 2 situations involve different scopes, in this case should we provide a different scenario in the estimation of the financial proposal?	The Contractor shall design for the existing CMDB Data Model which at the time of implementation will be DMTF CIM. The SOW is amended accordingly.
T.63	Book II, page 134, AR-47	The AR-47 mentions the SMC TA shall design to guarantee 99.9% availability, for this, will be necessary to consider: elimination of failure points; multithreading; self-healing tools and concepts. Do you see any restriction with that?	Infrastructure related restrictions will come from IT Modernization projects design. All relevant restrictions shall be identified during Baseline Architecture Workshops.
T.64	Book II, page 135, bullet 4.3.5.1	This point mention that some processes and data shall be migrated from CAMS application to Remedy ITSM. Could you please provide information about the complexity of the processes, workflows, their estimated performance (e.g. throughput), and details of the data model used?	The BMC Remedy Change Management module has already been configured and populated with the legacy CAMS data. The contractor will need to implement only the required workflows for the change management process.
T.65	Book II, page 136, bullet 4.3.5.2	This point mention that some processes and data have to be migrated from SRTS application to BMC ITSM. Could you please provide information about the complexity of the processes, workflows, their estimated performance (e.g. throughput), and details of the data model used?	The BMC Remedy Request fulfilment module has been configured but no SRTS data or workflows have been moved. The contractor will need to analyze the use cases to plan the migration after contract award. Indicatively the SRTS supports two internal network service request workflows, five requestor/approver roles, and uses CI data from CAST+ database.

TECHNICAL			
Serial NR	**RFQ REF**	**QUESTION**	**ANSWER**
T.66	Book II, page 136, bullet 4.3.5.2	This point mention that some processes and data have to be migrated from CAST+. Could you please provide information about the complexity of the processes, their estimated performance (e.g. throughput), and details of the data model used?	There is no requirement to migrate data from CAST+.
T.67	Book II, page 139, bullet 4.4	This point mention that processes and data have to be migrated to a new COTS toolset, Could you please provide information about the complexity of the processes, their estimated performance (e.g. throughput), and details of the data model used?, How many CI's are included, how many classes, integrations, etc…	For event and performance data volumes please refer to T.7. For workflow migration requirements please refer to T.65. Overall performance required is minimum 99.9% availability and maximum 2 seconds UI response time.
T.68	Book II, page 142, IR-25	Could you confirm if currently exists a list of predefined errors-root causes and possible resolution processes?, it is required to do specific tasks on developing the errors/root causes list?	This functionality can be implemented by leveraging the out-of-the-box automation/triage features of IT Operation Management products.
T.69	Book II, page 143, IR-28	It is specified that the system has to support twice the existing volumes in messages, but could you provide some of the current metrics?	See T.7
T.70	Book II, page 161, ILS-17	It is mention that "The Contractor furnished 1st Level Support POC shall be located at in a NATO member country". So for the Support activities could we assume that the personnel could be working in remote mode out of NATO premises?, in this case, will they	No. Remote access will not be possible. Remote support can be provided only in the form of guidance, troubleshooting instructions etc.

TECHNICAL			
Serial NR	**RFQ REF**	**QUESTION**	**ANSWER**
		be provided with the required tools and accesses (VPN..)?	
T.71	General	To determinate the ideal integration components and solution, it is important to know what would be the expected SLA (service) for the integration with other partners. Could you provide details about these agreements?	The required federation capability is meant to automate the ITIL processes listed in section 4.3. The process is the same irrespective of the set and characteristics of SLAs supported.
T.72	General	Figure 3 clearly shows that legacy systems will have the integration layer as the only gateway, can you please confirm it?	Yes, it is the preferred interface for all legacy system integration.
T.73	Page 9 of the Statement of Work, section 1.4 applicable documents	The majority of the referenced NATO documents cannot be found on internet, could you provide them?	See T.5
T.74	Page 22 of the SOW. Section 3.1 REACH and Project Workspace	NATO will provide REACH laptops for the team, in case we need to install specific software, could it be done?	If the software is in NATO Restricted AFPL, it is possible. If not, Contractor needs to initiate the process to include it to AFPL which could take weeks/months. It is advisable to have it on another laptop. The Contractor personnel will be given Internet access if needed for their work laptops.

TECHNICAL			
Serial NR	**RFQ REF**	**QUESTION**	**ANSWER**
T.75	Page 16 of the SOW. Section 2.5 Project Key Personnel	For some key personnel a backup is required. Could we consider a backup that could be part of the proposed team? Ex: Implementation Lead could have a backup inside the Team members.	In case the person within the same team have the same set of experience and skills and won't jeopardize the task at his hands it is acceptable.
T.76	Page 16 of the SOW. Section 2.5 Project Key Personnel	Could you identify the team and organisation chart that will be in place from NATO side? Ex. Project Manager, Technical Lead, etc..	The Bidders do not need this information to bid.
T.77	Page 16 of the SOW. Section 2.5 Project Key Personnel	In the case of the Implementation Lead and the Service Portfolio Manager it is required a University Degree, preferably Masters' Degree or relevant experience. For the Project Manager, it is expressed as mandatory to have a Masters' Degree when for the Architecture Lead this requirement is not mentioned. Could we consider that the rule defined for the implementation lead and the portfolio manager can be applicable for all key personnel?	The Requirement is added for AL. The SOW and bidding instructions are amended accordingly.
T.78	Page 16 of the SOW. Section 2.5 Project Key Personnel	It is required that the personnel should have possession of CEFR C1 or one of the language certificates mentioned in the list. Attending the criterion of the common European Framework, is it required to present an official document accrediting the level of knowledge in the language?. If yes, is it applicable also for native speakers?	See T1.

TECHNICAL			
Serial NR	**RFQ REF**	**QUESTION**	**ANSWER**
T.79	General	We understand that the main objective related to process support is the implementation of an updated version of; Request Fulfilment, Change, Event and Service Level Management. The update of the processes will involve a detailed assessment of them, but in order to evaluate the amount of work that this could mean, could you provide more information about the current pain points, critical success factors and KPIs?	The processes will be provided by Purchaser. Contractor is not expected to do any process development. The implementation is limited to the functions provided by the legacy applications.
T.80	General	From our understanding the target architecture should be defined to support all the processes mentioned in ITIL v3 rev 2011, so the tool should support them and the embedded logical data model should be designed accordingly. If this understanding is correct, please could you confirm if there is an specific approach or basis that should considered as reference in the design? Ex. Existing documentation defining the goals, CSFs, workflows and agents related. If the data model has to be complete we need to consider all existing references from the beginning and identify how the information will be gathered and provided in the different stages of an implementation plan, avoiding incoherencies, setting correct expectations about realistic results to achieve., ex., planning reporting, tool support, data maturity and so on.	There is no single document that covers the goals, CSFs, etc. There is ongoing work to develop on some of those. As part of developing the SMC Business Architecture the project will gather all the relevant inputs via stakeholder workshops in a formal way. So the Contractor is expected to gather requirements and constraints via Baseline Architecture workshops and then develop the Target Architecture in an interactive way with continuous cooperation with stakeholders. Purchaser understands the active involvement of the stakeholder is crucial for the level of depth and completeness of the final Architecture. The Contractor shall design for the existing CMDB Data Model which at the time of implementation will be DMTF CIM.

TECHNICAL			
Serial NR	**RFQ REF**	**QUESTION**	**ANSWER**
		Considering all ITIL processes from the beginning requires an effort to build and maintain the logical data model, the standard configuration model for services, their related application layers and infrastructure stacks, the related CIs and the required attributes, etc. So as much information you can provide to offer visibility of the starting point in this definition will be appreciated.	
T.81	General	Is there any governance guidelines that could be considered as reference in the process design? If these guidelines exist, it is expected from the contractor to propose improvement to these guidelines as part of the definition of the management model?	Enterprise Architecture and SMC Policy documents AC/322-N(2014)0120-REV1, NATO ICT Service Management Policy. AC/322-D(2015)0030, NATO (C3) Enterprise Architecture Policy. Although it is not within the scope of this project, all improvement suggestions are welcome.
T.82	General	Is there any criterion in the definition of the prioritisation of the process landscape and the roadmap for its implementation?	No.

TECHNICAL			
Serial NR	**RFQ REF**	**QUESTION**	**ANSWER**
T.83	General	Are the ITSM functions mentioned already defined and implemented?, could you describe them?.	This information is expected to be gathered by the Contractor during Baseline Architecture Workshops.
T.84	General	From a process perspective, the project as defined in the tender is "solutions-oriented" rather than "requirements-oriented". But the requirement of being agnostic in the technology should consider the perspective of "requirements-oriented" implementation approach. In this case, from our expertise, the design of the processes should be done initially being followed by the design of the information requirements in the CMDB. Would this approach be a valid option?	Both the architecture part and the implementation part are requirements oriented. High level requirements are provided and the Contractor is expected to refine the requirements via Stakeholder Workshops. ITIL processes are already being developed by the Purchaser teams and have varying degree of maturity. Contractor is also expected to analyze the process and organization and use them as constraints and enablers for the Target Architecture. For the UEMS and SLMS systems implementation part more detailed requirements are provided as the purchaser has already identified those via pre-existing analysis.
T.85	General	Is it possible to propose an Agile approach to deliver sequential implementations of processes while the information provided from the CMS is growing its maturity or the stage-gate approach provided is mandatory?	As long as the approach supports all requirements, bidders are welcome to offer any methodology. Stage-gate approach is mandatory for delivery acceptance.

TECHNICAL			
Serial NR	**RFQ REF**	**QUESTION**	**ANSWER**
T.86	Book II, part IV, SoW, page 24	Could you clarify the current modules of BMC Remedy that are implemented at NATO and what is their status?	BMC Remedy 7.6 Suite is implemented as follows: - Incident Management – %100 - Change Management - 90% - Request Fulfilment - 20% - SLM – 20%
T.87	Book II, part IV, SoW, page 24	Could you clarify the number of existing licenses/modules of BMC Remedy?	BMC Software License Type Quantity BMC ProactiveNet Perf Mgt Suite - Lic Base 1 BMC ProactiveNet Perf Mgt Suite - Serv & Tra Per Server 60 Seamless Tech Event Integr for BMC 5 ADDM Solution Per Server 1200 Dashboards and Analytics License Fixed 20 ITSM Suite Server 2 Service Management Specialist User Fixed 41 Service Management Specialist User Floating 40 Service Desk User Fixed 10 Service Desk User Floating 123 Asset Management User Floating 40 Asset Management User Fixed 1 Self Service User Floating 2 Change Management User Fixed 1 Change Management User Floating 60 SLM User Fixed 10 SLM User Floating 20 Knowledge Management User (Track 3) Floating 5
T.88	Book II, part IV, SoW, page 49. IR-5	The requirements are mentioning development, test and production environments. Could you provide more details, are all these environments in NATO Secret domain. Is it going to be required to perform the installations of the system in more domains?. Ex.	There are two environments in NS security domain Production and Development. So only two instances of tools will be needed.

TECHNICAL			
Serial NR	**RFQ REF**	**QUESTION**	**ANSWER**
		Training environment.	
T.89	Book II, part IV, SoW, page 49. IR-8	For the licenses of event management and service level management will be procured by the POC of NATO?	The Contractor shall provide the licenses for Event Management and SLM.
T.90	Book II, part IV, SoW, page 50.	In reference to the UESB, could you clarify is there is a existing software that should be used/configured to meet the requirements?, in this case, could you describe it?	All the software provided by the Purchaser is mentioned in SOW Section 4.4. The Purchaser has Microsoft System Centre Operations Manager as a Domain Management System. The bidders shall design an UESB that shall interface with it.
T.91	Book II, part IV, SoW, page 50.	In case there is no existing ESB to be used in the implementations, it is expected from the contractor to provide a COTS? Is there any preference from NATO (use of Open source or commercial COTS)?	There is no ESB currently used for Event Management in production. There is no preference over Open Source or Commercial ESB.
T.92	Book II, part IV, SoW, page 50.	In reference to the ESB: • What would be the worse and best expected SLA for the integration with other systems/partners? • What would be the expected throughput (messages per hour)? • What would be the average message size?	• 99.9% ESB availability is required as with all ITOM components • For throughput/volume requirements please refer to T.7 • The average event payload size is 100 Bytes • Yes. Legacy systems will have the Integration Layer (ESB) as the only gateway. • Logging is only required for failed message delivery.

TECHNICAL			
Serial NR	**RFQ REF**	**QUESTION**	**ANSWER**
		• Legacy systems will have the Integration Layer (ESB) as the only gateway? • Is it expected to have a log control to differentiate successful from unsuccessful delivered integration data? • Is it expected to provide a special treatment for every unsuccessful delivery data/message? What kind of treatment? • Should it be considered an automatic resubmit/resend when the delivery of a message fails? e.g.: unable to delivery messages to destination due to timeout. • Is there already an internal process/method to identify every single message or type of message? • Do you have preferences regarding the product to be implemented for the UESB (e.g.: Mule ESB, WSO2, TIBCO, Oracle SOA Suite)? • It is expected to have High Availability in the architecture?	• For failed delivery, an ESB health event should be raised and a reattempt made. Failed messages should also be dumped to a repository (file). • Yes. Automatic reattempt is required. • No internal method to identify unique messages. Incoming events (message payloads) have IDs assigned by the source management system. • For specific ESB products please refer to T.91. • HA architecture only required if needed to achieve 99.9% availability requirement.

NATO Communications and Information Agency

INVITATION FOR BID

IFB-CO-14150-SMC-TA
AMENDMENT 1

BOOK I

BIDDING INSTRUCTIONS

TABLE OF CONTENTS

SECTION 1 INTRODUCTION

1.1. Purpose

1.1.1. The purpose of this solicitation is to invite Bids and to establish a Contract for the provision of Service Management and Control (SMC) Target Architecture and implementation of various SMC capabilities.

1.2. Scope

1.2.1. The NATO CI Agency (NCI Agency), as designated Host Nation is authorized to award a Contract to the successful bidder (hereinafter referred to as “Contractor”).

1.2.2. The NCI Agency will oversee and actively contribute to the development of Service Management and Control Target Architecture and implementation of particular SMC capabilities as described further in Book I and Book II of the IFB, by the procurement of software and services under a single Contract resulting from a Basic Ordering Agreement Plus (BOA +) competition.

1.3. Overview of the Prospective Contract

1.3.1. The CO-14150-SMC-TA contract will provide consultancy services to support architectural development and implementation tasks to be delivered in customer premises. It will also provide the necessary software to implement some of the SMC capabilities designed during the architectural development work.

1.3.2. Following Source Selection , award of the Contract will be made on a Firm Fixed Price Basis to the lowest compliant Bidder (Lowest price, technically compliant).

1.3.3. The target for contract award is 2nd Quarter 2016.

1.4. Governing Rules, Eligibility, and Exclusion Provisions

1.4.1. This solicitation is an International Invitation for Bid (IFB) and is based on **BOA Plus** Competition. This IFB is issued in accordance with the procedures for Governing BOAs set forth in the NATO document AC/4-D(2002)002 (24 June 2002).

1.4.2. Pursuant to these procedures, Bidding is restricted to companies from participating NATO member nations for which a Declaration of Eligibility has been issued by their respective government authorities **or** which have an active BOA with the NCI Agency.

1.4.3. This IFB will **not** be the subject of a public bid opening.

1.4.4. Lowest Compliant Bid Competition:

The evaluation method to be used in the selection of the successful Bidder under this solicitation will follow the BOA procedures AC/4-D(2002)002 dated 24 June 2002.

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

1.4.6. 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 "Requests for IFB Clarifications".

1.5. Security

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

1.5.2. However, contractor personnel that will work at NATO sites are required to possess a security clearance of "**NATO SECRET**". Contractor personnel without such a clearance, confirmed by the appropriate national security authority and transmitted to the cognisant NATO security officer in accordance with the specific instructions contained in this IFB, 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."

1.5.3. All NATO CLASSIFIED material entrusted to the Contractor shall be handled and safeguarded in accordance with applicable security regulations. The Contractor shall be able to handle and store material of "NATO RESTRICTED" classification in his facility in the conduct of work under this Contract.

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

1.6. Documentation

1.6.1. 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 in the Contract Special Provisions (Part II) of the prospective Contract, and the definitions and acronyms set in the Clause entitled “Definitions of Terms and Acronyms” of the 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 NATO nations, **except** ALBANIA and CROATIA, contributing to the project, namely, (in alphabetical order): BELGIUM, BULGARIA, CANADA, CZECH REPUBLIC, DENMARK, ESTONIA, FRANCE, GERMANY, GREECE, HUNGARY, ICELAND, ITALY, LATVIA, LITHUANIA, LUXEMBOURG, THE NETHERLANDS, NORWAY, POLAND, PORTUGAL, ROMANIA, SLOVAKIA, SLOVENIA, SPAIN, TURKEY, THE UNITED KINGDOM and THE UNITED STATES.

2.1.1.7. "Purchaser": the authority to issue the IFB and/or award the contract, NATO CI Agency (NCI Agency).

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. As stated in paragraph 1.4.2 above only firms from a Participating Country are eligible to engage in this competitive Bidding process, which maintain an active Basic Ordering Agreement (BOA) with the NCI Agency, **or** have been nominated by their respective National Authority. In addition, 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 in NATO member countries, and no license fees or royalty charges shall be paid by the Contractor to firms, individuals or governments other than within the NATO member community.

2.3. Bid Delivery and Bid Closing

2.3.1. All Bids shall be in the possession of the Purchaser at the address given below in paragraph 2.3.2 not later than **14h00 hours (Brussels Time) on 26 APRIL 2016**, at which time and date Bidding shall be closed.

2.3.2. Bids shall be delivered to the following address:

By National Postal Service:
NCI Agency
Bâtiment Z
Attn: Sarah Hazebroek (Acquisition)
Boulevard Leopold III
1110 Brussels
Belgium

Hand Carried or Courier Service:
NCI Agency
Bâtiment Z

Attn: Sarah Hazebroek (Acquisition)
Avenue du Bourget 140
1110 Brussels

Bids submitted by electronic means are **not permitted** and will not be considered. Bidders are advised that security or other personnel remaining on the premises outside of normal business hours may decline to sign or issue receipts for delivered items.

2.3.3. Late Bids:

2.3.3.1. 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 be returned unopened to the Bidder at the Bidder's expense unless the Purchaser can determine that the Bid in question meets the criteria for consideration as specified below.

2.3.3.2. *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. Considering the number and quality of express delivery services, courier services and special services provided by the national postal systems, a late Bid shall only be considered for award under the following circumstances:

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

2.3.3.2.2. The Bid was sent to the address specified in the IFB by ordinary, registered or certified mail not later than ten (10) calendar days before the Bid closing date and the delay was due solely to the national or international postal system for which the Bidder bears no responsibility (the official postmark for ordinary and Registered Mail or the date of the receipt for Certified Mail will be used to determine the date of mailing), or

2.3.3.2.3. The Bid was hand carried, or delivered by a private courier service and the Bidder can produce a receipt which demonstrates that the delivery was made to the correct address and received by a member of the NCI Agency and the failure to be received by the Contracting Authority was due to mishandling within the Purchaser’s organisation.

2.3.3.3. A Late Bid which was hand-carried, or delivered by a private courier, for which a proper receipt cannot be produced, cannot be considered for award under any circumstances nor can late Bids which bear no post marks or for which documentary evidence of mailing date cannot be produced.

2.3.3.4. Bidders are advised that security personnel or other personnel remaining on the premises outside of normal business hours may decline to sign or issue receipts for delivered items.

2.4. Requests for Extension of Bid Closing Date

2.4.1. The Purchaser does not anticipate, except in exceptional cases, accepting Bidder requests to extend the Bid Closing Date. In any event, all questions and requests for extension of bid closing date must be submitted in writing. Bidders are informed that requests for extension to the closing date for the IFB shall be submitted **only** through their NATIONAL Representatives/ Delegations at NATO to the point of contact indicated in paragraph 2.5.1 below. Any request for extension shall be submitted by the Bidder no later than seven (7) days prior to the established Bid closing date. Extensions to the Bid Closing Date are at the sole discretion of the Purchaser.

2.5. Purchaser's Point of Contact

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

Sarah Hazebroek
Contracting Officer
Acquisition - Contracting
E-mail Sarah.Hazebroek@ncia.nato.int

2.6. Requests 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 requests for clarification shall be forwarded to the Purchaser using the Clarification Request Forms provided at **Annex D of this Book I**. Such requests shall be forwarded via email to the point of contact specified in paragraph 2.5.1 above and shall arrive **no later than 22 March 2016**. 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 2.6.3 below.

2.6.3. 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 no later than 8 April 2016.

2.6.4. 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.

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

2.6.6. 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.

2.6.7. Where the extent of the changes implied by the response to a clarification request is of such a magnitude that the Purchaser deems necessary to issue revised documentation, the Purchaser will do so by the means of the issuance of a formal IFB amendment in accordance with paragraph 2.8 below.

2.6.8. The Purchaser reserves the right to reject questions and clarification requests clearly devised or submitted for the purpose to artificially obtain 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).

2.6.9. 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.

2.7.2. 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 Invitation for Bid

2.8.1. The Purchaser may revise, amend or correct IFB at any time prior to the Bid Closing Date as detailed in paragraph 2.3. Any and all modifications 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 above or may be an independent action on the part of the Purchaser.

2.8.2. 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.

2.8.3. 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.

2.9. 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. 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 2.3.3, 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 and subsequently remove the Bid from the Purchaser’s premises.

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 six (6) 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 Bidder shall furnish with his Bid a guarantee in an amount equal to Eighty Thousand Euro (€80,000). 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 CI Agency.

2.11.2. Alternatively, a Bidder may elect to post the required Guarantee in cash (via direct bank deposit, referencing IFB-CO-14150-SMC-TA) or by certified cheque to be submitted in the Bidders Bid Administration package. 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.

2.11.3. 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.

2.11.4. 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.

2.11.5. In the event that a Bid Guarantee is submitted directly by a banking institution, the Bidder shall furnish **a copy of said document in the Bid Administration Package.**

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 or, if there is no requirement for such a Performance Guarantee, upon Contract execution by both parties.

2.11.7.4. pursuant to paragraph 2.10.4.2 above.

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 Invitation for Bid

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 endeavour to communicate answers to requests for clarification and amendments to this IFB to the prospective Bidders as soon as practicable.

2.13.2. Bidders are cautioned that except for those cases in which electronic transmission of documentation is not permissible (i.e. documents with security classification mandating specific transmission methods) the Purchaser will rely exclusively on electronic means (i.e. electronic mail communication and use of a dedicated IFB webportal) to manage all correspondence related to this IFB, including IFB amendments and clarifications.

2.13.3. Notwithstanding paragraph 2.13.2 above and subject to feasibility, prospective Bidders may request to be notified also by fax or regular mail when IFB correspondence is released to them. Such requests shall be submitted to the points of contact specified in paragraph 2.5.1 above. Such

requested method of notification shall not be construed as the Bidders' right to obtain an extension of the Bid Closing Date.

2.13.4. Bidders shall note that where voluminous documentation is to be transmitted the Purchaser will consider electronic transmission as the sole feasible manner to promptly notify all Bidders pursuant to the prescription is paragraph 2.13.1. Consequently, in such cases, the Purchaser will notify the Bidders' of the impossibility to resort to alternative methods of transmissions if this has been requested.

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 theNCI 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 Clause 30 of the Contract General Provisions set forth Part III of Book II herein. This Clause sets 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 Annex B-9, Annex B-10, 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 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.

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 prepare a complete Bid which comprehensively addresses all requirements stated herein. The Bid shall demonstrate the Bidder's understanding of the terms, conditions and requirements of the IFB and his ability to provide all the services and deliverables listed in the Schedules of the prospective Contract.

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

3.1.4. Partial Bids and/or bids containing conditional statements will be declared non-compliant.

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

3.1.6. If no specific format has been established for electronic versions/ soft copies of the Bid documentation to be provided in accordance with paragraph 3.2 below, Bidders shall deliver this type of documentation in an electronic format which is best suited for review and maintenance by the Purchaser (e.g., Project Master Schedule in MS Project format, Project Highlight Reports in MS Word).

3.1.7. In the event of a discrepancy between the soft and hard copies of the Bid documentation to be provided in accordance with paragraph 3.2 below, the hard copy will be considered as the authoritative bid document for the purpose of evaluation and take precedence.

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

3.1.9. All documentation submitted as part of the Bid shall be in English.

3.2. Bid Package Content

3.2.1. The complete Bid shall consist of three distinct and separated parts described in the following subparagraphs. Detailed requirements for the

structure and content of each of these packages are contained in these Bidding Instructions.

3.2.2. **The Bid Administration Package**, containing one (1) Original paper copy of the documents specified in paragraph 3.4 below.

3.2.3. **The Price Quotation Envelope**, containing one (1) Original paper copy and one (1 CD ROM or DVD) soft copy in MS Excel (version 2007 onwards) format of the Price Quotation specified in paragraph 3.5.

3.2.4. **The Technical Proposal Package**, structured as mentioned below and as specified in paragraph 3.6. Each Part shall be clearly identified (separate binder or file) for ease of segregation and handling and shall each be submitted in one Original (1) paper copy and two (2 CD ROMs) soft copies.

3.2.4.1. Project management

3.2.4.2. Design and Implementation

3.2.4.3. Integrated Logistics Support

3.3. Package Marking

3.3.1. The separate parts of the Bid shall be placed in outer containers for delivery. All outer containers into which Bidding documents are placed shall be opaque or wrapped in opaque paper, sealed and identified with the following markings:

3.3.1.1. Name and address of the Bidder,

3.3.1.2. The words “SEALED BID” followed by the reference “IFB-CO14150-SMC-TA”;

BOX X of Y (1 of 3, 2 of 3, etc.)

NOTIFY : ACQUISITION - Sarah Hazebroek or Werner Goos

3.3.2. Each of the Bid parts placed in the outer container(s) shall be separately wrapped (multiple copies of the same document may be wrapped together), and marked as follows:

3.3.2.1. Name and address of the Bidder,

3.3.2.2. The words “SEALED BID” followed by the reference “IFB-CO-14150-SMC-TA ”;

3.3.2.3. The appropriate package marking, i.e. “Bid Administration”, “Price Quotation”, “Technical Proposal”.

3.4. Bid Administration Package

3.4.1. The Package must include the original of the Bid Guarantee required by paragraph 2.11 of the Bidding Instructions. If the Bid Guarantee is sent to the Purchaser directly from the Bidder's bank, a letter, in lieu of the actual Guarantee, shall be included specifying the details of the transmittal. Bidders are reminded that the Bid Guarantee shall reflect any extensions to the Bid Validity Date due to extensions in the Bid Closing Date.

3.4.2. Bidders shall complete and return the IFB/Bid Cross-Reference Sheets covering the full Prospective Contract and Bidding Instructions where required. It is the Bidders responsibility to ensure that the submitted IFB Cross-Reference Table cover all sections of the IFB Contractual and technical requirements. The Cross-Reference Sheets are detailed in Annex A-2.

3.4.3. The Package 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 (List of Prospective Subcontractors)

3.4.3.9. Annex B-9 (Bidder Background IPR)

3.4.3.10. Annex B-10 (List of Subcontractor IPR)

3.4.3.11. Annex B-11 (Certificate of Origin of Equipment, Services, and Intellectual Property)

3.4.3.12. Annex B-12 (List of Proposed Key Personnel **and** evidence of their valid Security Clearances, including validity dates)

3.4.3.13. Annex B-13 (Certificate on security clearance)

3.4.3.14. Annex B-14 (Reserved)

3.5. Price Quotation

3.5.1. Package Contents

3.5.1.1. This envelope must contain the following documentation and media in the quantities provided in paragraph 3.2.3 above:

3.5.1.1.1. The completed set of sheets contained in the electronic file "03_ IFB-CO-14150-SMC-TA_BookI_Bidding Sheets.xlsx" submitted as part of this IFB.

3.5.1.1.2. CD-ROM or DVD containing an electronic version, **in MS Excel format**, of the documentation stated in paragraph 3.5.1.1.1 above.

3.5.2. General Rules

3.5.2.1. Bidders shall prepare their Price Quotation by completing the Bidding Sheets referred in paragraph 3.5.1.1.1 above, in accordance with the instructions specified in Annex A-1.

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

3.5.2.3. When completing the Bidding Sheets the Bidder shall insert information in all yellow cells of the Bidding Sheets and complete the Pricing Summary as instructed. A price for each specified element needs to be supplied on each CLIN. Prices should not be grouped. The prices and quantities entered on the document shall reflect the total items required to meet the contractual requirements. The total price shall be indicated in the appropriate columns and in the currency quoted. If the price of a line item is expressed in different currencies, these shall be identified, and there shall be as many totals on

that line item as there are currencies. In preparing the Price Quotation, Bidders shall ensure that the prices of the Sub-items total the price of the major item of which they constitute a part.

3.5.2.4. 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. Partial quotations shall be rejected.

3.5.2.5. 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.

3.5.2.6. 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. In the case of inconsistencies between the electronic version of the Bidding Sheets and the paper “hard copy” of the Bidding Sheets, the “hard copy” will be considered by the Purchaser to have precedence over the electronic version.

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

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

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

3.5.2.8. 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.

3.5.2.9. Bidders shall therefore **exclude** from their price Bid all taxes, duties and customs charges from

which the Purchaser is exempted by international agreement and are required to certify that they have done so through execution of the Certificate at Annex B-5.

3.5.2.10. Unless otherwise specified in the instructions for the preparation of Bidding Sheets in Annex A-1, all prices quoted in the proposal shall be on the basis that all deliverable items shall be delivered "Delivery Duty Paid (DDP)" in accordance with the International Chamber of Commerce INCOTERMS ® 2010.

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

3.6. Technical Proposal Package

3.6.1. The Bidder shall prepare and submit a Technical Proposal in accordance with the instructions illustrated in this section.

3.6.2. The Bidder shall construct its technical proposal by differentiating the different domain of activities to perform. The technical proposal will as a minimum address in different paragraphs the following domains:

3.6.2.1. Project Management and Project Implementation Plan

3.6.2.1.1. The Bidder shall provide as part of the proposal an extract of the Project Implement Plan (PIP) as per paragraph 2.2 of the SOW, which:

3.6.2.1.1.1 shall not exceed forty (40) A4 or A3 pages.

3.6.2.1.1.2 shall include sub-contract activities, detailing the management responsibilities of any/all sub-contractors, defining which project tasks the sub-contractors shall be responsible, shall address the relationship associated control mechanisms to support quality, change and configuration procedures in delivering products.

3.6.2.1.1.3 shall address the management of the coordination with NCI Agency SMC Service Line, in particular during the design, installation, migration and test activities.

3.6.2.1.1.4 shall contain a draft Project Work Breakdown Structure (PWBS).

3.6.2.1.1.5 shall contain a draft Project Master Schedule (PMS) showing the different stages to move from the current solution to the future solution and expected completion dates of the milestones.

3.6.2.1.2. The Bidder shall provide information about the project team's key personnel.

3.6.2.1.2.1 The Bidder shall propose staff with supporting CV/resume for the key personnel positions and their alternatives: Project Manager(PM), Architecture Lead (AL), Implementation Lead (IL) and SMC Project Portfolio Manager.

3.6.2.1.2.2 All Contractor's key personnel shall have a thorough knowledge of the English language. Each of the Key Personnel, as identified in Section 2.5, shall prove their ability to effectively communicate in English either by providing the following certificates or by having Bachelor's Degree from an institution with English as the language of instruction:

3.6.2.1.2.2.1 CEFR C1.

3.6.2.1.2.2.2 Test of English as a Foreign Language (TOEFL) Internet-based Test (iBT) with minimum score of 80.

3.6.2.1.2.2.3 Cambridge English Language Assessment CPE CAE grade B or C / FCE grade A.

3.6.2.1.2.2.4 IELTS with minimum score of 6 points.

3.6.2.1.2.3 All Contractor's key personnel shall be ITIL v3 certified in at least foundation level.

3.6.2.1.2.4 The PM shall have a Master's Degree in Engineering, management or business administration.

3.6.2.1.2.5 The PM shall have at least seven years in information systems related project management, preferably including the application of a project management methodology such as PRINCE2.

3.6.2.1.2.6 All key personnel shall have demonstrated knowledge and experience as supported by project references, points of contact, and technical descriptions of the implemented projects.

3.6.2.1.2.7 The Contractor shall provide an alternate project manager as stand-in as back-up. The alternate Implementation Lead shall be able to assume the role without any interruption of the tasks at hand.

3.6.2.1.2.8 The IL and team members shall have a University Degree in Electronic Engineering, Computer Science or related discipline, preferably equivalent to a Master's, supported by relevant certificates

/ diplomas. Exceptionally, extensive relevant experience may be considered if the above qualifications are not met.

3.6.2.1.2.9 The IL shall have demonstrated practical experience in at least two of the following products: Microsoft System Centre, ESB products, Oracle Database, BMC ITSM Remedy supported by valid certification or extensive experience

3.6.2.1.2.10 The Implementation Team members shall have demonstrated practical expertise (at least 3 years) covering the following technical domains:

3.6.2.1.2.10.1 BMC ITSM Remedy 7.x and newer

3.6.2.1.2.10.2 Microsoft System Centre 2012

3.6.2.1.2.10.3 Oracle 11g or 12c

3.6.2.1.2.10.4 Deploying and configuring IT operations management solutions including but not limited to BMC Truesight Operations Management, IBM Netcool, CA Service Operations Insight or HP Operations Manager.

3.6.2.1.2.10.5 Implementing XML-based web service interfaces (SOAP & REST) using Enterprise Service Bus solutions (indicatively MULE, WSO2)

3.6.2.1.2.11 The AL shall have a University Degree in Electronic Engineering, Computer Science or related discipline, preferably equivalent to a Master's, supported by relevant certificates / diplomas. Exceptionally, extensive relevant experience may be considered if the above qualifications are not met.

3.6.2.1.2.12 The AL shall have at least five years in developing information architecture and demonstrated expertise for an effort of similar scope.

3.6.2.1.2.13 The AL shall have at least Intermediate Level ITIL v3 certification.

3.6.2.1.2.14 The AL shall have official TOGAF 9 certificate.

3.6.2.1.2.15 The AL shall have experience on IBM Rational System Architect tool or similar tool.

3.6.2.1.2.16 The SMC Project Portfolio Manager shall;

3.6.2.1.2.16.1 be able to demonstrate experience in, Requirements Management and Analysis.

3.6.2.1.2.16.2 be able to demonstrate experience in use case development using UML.

3.6.2.1.2.16.3 be able to demonstrate experience in IBM Rational DOORS or other requirements management tool.

3.6.2.1.2.16.4 be able to demonstrate experience in BPMN diagrams for ITIL processes.

3.6.2.1.2.16.5 be able to demonstrate experience in Stakeholder Communication.

3.6.2.1.2.17 The SMC Project Portfolio Manager shall have University Degree in Electronic Engineering, Computer Science or related discipline, preferably equivalent to a Master's, supported by relevant certificates / diplomas. Exceptionally, extensive relevant experience may be considered if the above qualifications are not met.

3.6.2.1.2.18 The Bidder shall provide evidence that clearly shows that all key personnel and implementation team members possess NATO Secret clearances by Contract Award which are valid during the entire project.

3.6.2.2. Technical Design

3.6.2.2.1. The Bidder shall provide a draft System Design Specifications for deliverables CLIN 2.1.7 defined in section 4.3.5 and 4.4.2 of the SOW to show his understanding of the requirements of that deliverable and ability to follow architectural development methodology.

3.6.2.3. Integrated Logistics Support

3.6.2.3.1. The Bidder shall provide a draft Configuration Management Plan (CMP).

3.6.2.3.2. The CMP shall outline how the Bidder adopts the Configuration Management processes and deliverables to the scope of this contract as requested in the SOW Section 6 and in accordance with the ACMP's.

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 Invitation for Bid (IFB).

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

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

4.1.4. During the evaluation, the Purchaser may request clarification of the Bid from the Bidder and the Bidder shall provide sufficient detailed information in connection with such requests as to permit the Purchaser to make a final assessment of the Bid based upon the facts. The purpose of such clarifications will be to resolve ambiguities in the Bid and to permit the Bidder to state 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.

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

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

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

4.1.8. The evaluation will be conducted in accordance with the Procedures Governing BOAs set forth in the NATO document AC/4-D(2002)002 (24 June 2002).

4.1.9. Evaluation of this IFB will be conducted in accordance with the "One Envelope" procedure in which the Price Proposal of each administratively compliant Bidder is evaluated first, and only the Technical Proposal of the apparent lowest priced bid is then evaluated for compliance with the technical requirements of the IFB.

4.1.10. Bidders that are determined to have submitted non-compliant bids will be so notified and will have an opportunity to challenge such a determination. In such a case the technical proposal of the Bidder who has submitted the apparent second lowest priced bid will be evaluated, and so on.

4.1.11. The Bidder who has offered the **lowest priced, technically compliant bid** will then be offered the contract for award.

4.2. Evaluation Procedure

4.2.1. The evaluation will be done as described below:

4.2.1.1. Step 1: Administrative/Contractual Compliance

4.2.1.1.1. Bids received will be reviewed for compliance with the mandatory administrative requirements specified in paragraph 4.3. Bids not meeting all of the mandatory administrative requirements may be determined to be non-compliant and not considered for further evaluation.

4.2.1.2. Step 2: Price Evaluation

4.2.1.2.1. The Price Quotations of all Bids not considered non-compliant under the previous step will be opened and evaluated in accordance with paragraph 4.4.

4.2.1.3. Step 3: Technical Evaluation

4.2.1.3.1. In Step 3 the Technical Proposal of the lowest-priced Bid will be opened and evaluated in accordance with paragraph 4.5.

4.3. Evaluation Step 1 – Administrative/Contractual Compliance

4.3.1. Prior to commencement of the Price and Technical evaluation, Bids will be reviewed for compliance with the Bid Submission Requirements of this IFB. These are as follows:

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

4.3.1.2. The Bid was packed and marked properly,

4.3.1.3. The Bid Administration Package contains the documentation listed in paragraph 3.4 above and complies with the formal requirements established in paragraph 3.1 above,

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

4.3.3. If it is discovered, during either the Price or Technical evaluation, 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 bid.

4.3.4. Bids that are determined to be administratively compliant will proceed to Step 2, Price Evaluation.

4.4. Evaluation Step 2 - Price Evaluation

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

4.4.1.1. 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-1, in particular.

(a) The Bidder has furnished Firm Fixed Prices for all items listed.

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

(c) Bid prices include all costs for items supplied, delivered, and supported.

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

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

(f) The Bidder has provided accurate unit price and total price of each of the sub-items she/he added (if any).

(g) The grand total is accurate.

(h) The currency of all line items has been clearly indicated.

(i) The Bidder has quoted in his own national currency or in the host nation currency, Euros. Where multiple currencies including other NATO member states' currencies are quoted, the conditions of Section III, paragraph 3.5.2.9 are met.

(j) The Bidder has indicated that in accordance with the treaties governing the terms of business with NATO, he has excluded from his prices all taxes, duties and customs charges from which the Purchaser has been exempted.

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

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

4.4.1.3. The Price Quotation meets requirements for price realism and balance as described below in paragraph 4.4.4.

4.4.2. 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.

4.4.3. Basis of Price Comparison

4.4.3.1. 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.

4.4.3.2. The Price comparison will be based on the offered Grand Total Firm Fixed Price of the Contract which comprises **CLINs 1 through 4** in the Bidding Sheets**.**

4.4.4. Price Realism

4.4.4.1. Should the Lowest Offered Price appear to be substantially different from the next lowest prices offered, the Purchaser will review the Price Quotation to determine if a reasonable explanation for the differential is apparent.

4.4.4.2. 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.

4.4.4.3. Indicators of an unrealistically low Bid may be the following, amongst others:

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

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

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

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

4.4.4.4.1. 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.

4.4.4.4.2. 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.

4.4.4.4.3. 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 as statement can only be made by the head of the business unit submitting the Bid and will normally be made at the level of Chief Operating Officer or Chief Executive Officer. In such a case, the

Bidder shall estimate the potential loss and show that the financial resources of the Bidder are adequate to withstand such reduction in revenue.

4.4.4.5. 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 4.4.4.4.1 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.

4.4.4.6. If the Purchaser accepts the Bidder's explanation of mistake in paragraph 4.4.4.4.1 and allows the Bidder to accept the Contract at the offered price, or the Purchaser accepts the Bidder's explanation pursuant to paragraph 4.4.4.4.3 above, the Bidder shall agree that the supporting pricing data submitted with his Bid will be incorporated by reference in the resultant Contract. The Bidder shall agree as a condition of Contract signature, that the pricing data will be the basis of determining fair and reasonable pricing for all subsequent negotiations for modifications of or additions to the Contract and that no revisions of proposed prices will be made.

4.4.4.7. If the Bidder presents a convincing rationale pursuant to paragraph 4.4.4.4.2 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.

4.4.4.8. The Purchaser reserves the right to request prime Contractors, or the Subcontractor 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.

4.5. Evaluation Step 3 - Technical Evaluation

4.5.1. Upon determination of the lowest-priced Bid as described above, the Bid shall be evaluated to confirm compliance with the requirements stated in Book I, Section 3.6 and Book II, Part IV - Statement of Work (SOW):

4.5.2. The Bidder's Technical Proposal package will be evaluated for compliance to the following standards:

4.5.2.1. The Technical Proposal meets the requirements for preparation and submission set forth in the Bid Preparation;

4.5.2.2. The Technical Proposal addresses the different items as stated in Book I, Section 3.2.4;

4.5.2.3. The Technical Proposal has been constructed by differentiating the different domain of activities to perform as stated in Book I, Section 3.2.4.

4.5.3. The Bidder's Project Management and Implementation Proposal will be evaluated for the following elements:

4.5.3.1. The Bidder has provided an extract of Project Implementation Plan (PIP) which addresses the requirements that are detailed in paragraph 2.2 of the SOW.

4.5.3.2. The PIP extract will be evaluated in relation to that:

4.5.3.2.1. it does not exceed twenty A4 pages/sides,

4.5.3.2.2. it details the Bidder's management structure and details management responsibilities and project tasks of any/all sub-contractors,

4.5.3.2.3. it addresses the management of the coordination with NCI Agency.

4.5.3.2.4. It contains a draft Project Work Breakdown Structure.

4.5.3.2.5. It contains a draft Project Delivery Schedule.

4.5.3.3. The Bidder has provided CV/resume for all key personnel positions and their alternatives: Project Manager, Architecture Lead, Implementation Lead and teammembers. SMC Portfolio Manager.

4.5.3.4. The Bidder has provided enough evidence that the key personnel are equipped with the following skills, training, certification and experience supported by project references, points of contact, and technical descriptions of the implemented projects:

4.5.3.4.1. all key personnel poses one of the following equivalent certificates or have a Bachelor's Degree from an instutition with English as the language of instruction

4.5.3.4.1.1 CEFR C1

4.5.3.4.1.2 Test of English as a Foreign Language (TOEFL) Internet-based Test (iBT) with minimum score of 80.

4.5.3.4.1.3 Cambridge English Language Assessment CPE CAE grade B or C / FCE grade A.

4.5.3.4.1.4 International English Language Testing System (IELTS) with minimum score of 6 points.

4.5.3.4.2. all key personnel are ITIL v3 certified in at least foundation level.

4.5.3.4.3. The project Manager has a Master's Degree in engineering, management or business administration.

4.5.3.4.4. The project manager has at least seven(7) years of experience in information systems related project management, preferably including the a project management methodology such as PRINCE2.

4.5.3.4.5. The implementation lead and team members has a university degree in Electronic Engineering or Computer Science or a related discipline or exceptionally have extensive relevant experience.

4.5.3.4.6. The implementation lead have practical experience in at least two of the followings products; Microsoft System Centre, Open Source ESB products, Oracle Database, BMC ITSM Remedy.

4.5.3.4.7. The Implementation team members have practical experience for at least 3 years covering following domains:

4.5.3.4.7.1 BMC ITSM Remedy 7.x and newer

4.5.3.4.7.2 Microsoft System Centre 2012

4.5.3.4.7.3 Oracle 11g or 12c

4.5.3.4.7.4 Deploying and configuring IT operations management solutions including but not limited to BMC Truesight Operations Management,

IBM Netcool, CA Service Operations Insight or HP Operations Manager.

4.5.3.4.7.5 Implementing XML-based web service interfaces (SOAP & REST) using Enterprise Service Bus solutions (indicatively MULE, WSO2)

4.5.3.4.8. The Architecture Lead have 5 years of experience in developing information systems architecture.

4.5.3.4.9. The Architecture Lead has Intermediate level ITIL v3 certificate or better.

4.5.3.4.10. The Architecture Lead has official TOGAF 9 certificate.

4.5.3.4.11. The Architecture Lead has IBM experience on IBM Rational System Architect or a smilar tool.

4.5.3.4.12. The SMC Project Portfolio Manager has demonstratable experience in:

4.5.3.4.12.1 Requirements Management and Analysis.

4.5.3.4.12.2 Stakeholder Communication.

4.5.3.4.12.3 Use case development with UML.

4.5.3.4.12.4 IBM Rational DOORS or smilar requirements management tool.

4.5.3.4.12.5 developing BPMN diagrams for ITIL processes.

4.5.3.4.13. The SMC Project Portfolio Manager have university degree in Electronic Engineering or Computer Science or a related discipline or exceptionally have extensive relevant experience.

4.5.3.5. The Bidder has provided evidence that the key personnel and implementation team members possess NATO Secret clearances which are valid for the whole duration of to the duration of the prospective Contract.

4.5.3.6 In addition, the proposed key personnel may be interviewed by an NCI Agency selection board if considered necessary to validate the skills presented in his/her application and validate compliance. Alteration of the proposed candidate during evaluation will render the bid non-compliant.

Such interview(s) may either take place at The Hague, The Netherlands or may be conducted via Skype. Costs incurred by the Bidder to travel

at that time will not be reimbursed by the NCI Agency.

4.5.4. The Bidder's Technical Design Proposal will be evaluated for the following elements:

4.5.4.1. The Bidder has provided a draft System Design Specifications for deliverable CLIN 2.1.7 defined in section 4.3.5 and 4.4.2 of the SOW to show his understanding of the requirements of that deliverable and ability to follow architectural development methodology.

4.5.5. The Bidder's Integrated Logistics Support Proposal will be evaluated for the following elements:

4.5.5.1. The bidder has provided a draft Configuration Management Plan (CMP).

4.5.5.2. The Draft CMP has provided outline how the Bidder adopts the Configuration Management processes and deliverables to the scope of this contract as requested in the SOW Section 6 and in accordance with the ACMP's.

Annex A-1. Instructions for the Preparation of the Bidding Sheets

1. INTRODUCTION

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

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

2. GENERAL REQUIREMENTS

Bidders are required, in preparing their Price Quotation to utilise the Bidding Sheets following the instructions detailed in Section III – Bid Preparation Instructions, Paragraph 3.5– Price Quotation and hereunder.

The Bidding Sheets are contained in the electronic file “03_IFB-CO-14150-SMC-TA_Book I_Bidding Sheets.xlsx” submitted as part of this IFB.

The prices and quantities entered on the document shall reflect the total items required to meet the Contractual requirements.

The total price shall be indicated in the appropriate columns and in the currency quoted. The award of the Contract will be made in the currency or currencies of the Bid. The total evaluated price shall be the price of the basic contract (CLINs 1 through 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. Pricing for lower level items shall add to the total for the Sub-CLINs, and the Sub-CLIN totals shall add to the CLIN total. The Purchaser in its favour may resolve ambiguous computation of prices.

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

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

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

Annex A-2. IFB/Bid Cross-Reference Sheets

IFB technical requirements Cross-Reference Sheet (cf. SOW)

CLIN	Description	IFB reference	Bid reference
1.2	Project Implementation Plan (PIP)	2.2	
1.3	Project Master Schedule(PMS)	2.2.2	
1.4	Project Work Breakdown Structure(PWBS)	2.2.1	
2.1.7	System Design Specification(SDS) for Unified Event Management System	4.3.5.4, 4.4.2.1, 4.4.2.2	
4.2	Configuration Management Plan	6	
N/A	CVs for all proposed Key personnel	2.5	
N/A	Draft Configuration Management Plan	6.1	

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: _____

TELEFAX No: _____

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 IFB-CO-14150-SMC-TA have been received and the Bid, as submitted, reflects the content of such amendments.

Amendment no.	Date of Issued	Date of receipt	Initials

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 CO-14150-SMC-TA 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 six (6) 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 Special Contract 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 Special and General Provisions if awarded the Contract as a result of this Invitation for Bid.

_____ _____

Date Signature of Authorised Representative

_____

Printed Name

_____

Title

_____

Company

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. List of Prospective Subcontractors/Consortium Members

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

Date

Signature of Authorised Representative

Printed Name

Title

Company

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

Annex B-9. 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

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

c. The Background IPR stated above complies with the terms specified in Clause 30 of the Contract General Provisions.

_____ _____

Date Signature of Authorised Representative

_____

Printed Name

_____

Title

_____

Company

Annex B-10. List of Subcontractor IPR

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

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

ITEM	DESCRIPTION

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-11. CERTIFICATION OF NATO MEMBER COUNTRY ORIGIN OF DELIVERED EQUIPMENT, SERVICES, MATERIALS AND INTELLECTUAL PROPERTY RIGHTS

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 Contractor to firms, individuals or governments other than within the NATO member countries.

_____ _____

Date Signature of Authorised Representative

_____

Printed Name

_____

Title

_____

Company

Annex B-12. List of Proposed Key Personnel

Position	SOW Reference	Labour Category	Name	Security Clearance (validity dates)
Project Manager	2.5.1			
Architecture Lead	2.5.3			
Implementation Lead	2.5.2			
SMC Project Portfolio Manager	2.5.4			

Date

Signature of Authorised Representative

Printed Name

Title

Company

ANNEX B-13. CERTIFICATE ON SECURITY CLEARANCE

The Bidder hereby certifies that the proposed personnel have the appropriate Security Clearance required for performance under the prospective Contract or that all necessary actions have been undertaken to ensure that the proposed personnel will be in possession of such Security Clearance at the time of Contract award.

The Bidder hereby certifies that he is fully aware that resulting contract may require the Contractor to handle and store classified material to the level of “NATO RESTRICTED” and that the Contractor shall have the appropriate facility and personnel clearances at the time of Contract award.

_____ _____

Date Signature of Authorised Representative

_____

Printed Name

_____

Title

_____

Company

ANNEX B-14. RESERVED

Annex C Bid Guarantee - Standby Letter of Credit

Standby Letter of Credit Number:

Issue Date: _____

Beneficiary: NATO CI Agency,
Financial Management Resource Centre,
Avenue du Bourget, 140
B-1110 Brussels,
Belgium

Expiry Date: _____

1. We, (issuing bank) hereby establish in your favour our irrevocable standby letter of credit number {number} by order and for the account of (NAME AND ADDRESS OF BIDDER) in the original amount of € 100,000.00 (hundred Thousand Euro). We are advised this Guarantee fulfils a requirement under Invitation for Bid IFB-CO-14150-SMC-TA- dated _____.

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

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

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

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

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

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

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

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

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

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

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

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

8. Multiple drawings are allowed.

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

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

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

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

Annex D Clarification Request Form

INSERT COMPANY NAME HERE
INSERT SUBMISSION DATE HERE

INVITATION FOR BID
IFB-CO-14150-SMC-TA

Annex D - CLARIFICATION REQUEST FORM

INSERT COMPANY NAME HERE
INSERT SUBMISSION DATE HERE

ADMINISTRATION or CONTRACTING				
Serial No.	**IFB REF**	**BIDDER'S QUESTION**	**NCI AGENCY ANSWER**	**STATUS**
A.1				
A.2				
A.3				
A.4				
A.5				

INSERT COMPANY NAME HERE
INSERT SUBMISSION DATE HERE

PRICE Serial No.	IFB REF	BIDDER'S QUESTION	NCI AGENCY ANSWER	STATUS
P.1				
P.2				
P.3				
P.4				
P.5				

INSERT COMPANY NAME HERE
INSERT SUBMISSION DATE HERE

TECHNICAL Serial No.	IFB REF	BIDDER'S QUESTION	NCI AGENCY ANSWER	STATUS
T.1				
T.2				
T.3				
T.4				
T.5				

CLIN Bidding Sheets Instructions

INTRODUCTION
All bidders are required to submit pricing details to demonstrate the Purchaser's Pricing Principles are being applied as part of their bids (in the absence of a pre-approved National Format). All data completed in these sheets shall be complete, verifiable and factual and include the required details. Any exclusions may render your bid as non compliant thus removing yourself from the bidding process.

FORM INPUTS

PRICING SUMMARY ASSUMPTIONS		
Currency:		*Select currency of input values from drop down list.*
Calendar Year:		*Select Year 1 of the spread profile from the drop down list.*
Quantity		*Enter quantities of proposed item(s) in the time profiling inputs to the right.*
Unit Cost		*Enter the unit cost of the proposed item(s) for each year.*
Total Estimated Cost		*This is a calculated value (Quantity x Unit Price) and should not be altered.*

CATEGORY	DESCRIPTION	APPLICATION
DIRECT MATERIAL	*A. Purchased Equipment - Items purchased as part of the proposed solution. Please provide vendor quotes and/or invoices along with quantity and prices.* *B. Subcontracted Item - Items procured through sub contracts as part of the proposed solution. Please provide subcontractor quotes and/or invoices along with quantity and prices.* *C. Other Equipment/Materials - Items procured as part of the proposed solution. Please provide vendor quotes and/or invoices along with quantity and prices.*	*1. Insert the Equipment Item Name(s).* *2. Provide a time phased (monthly) breakdown of quantities.* *3. Provide unit prices against each equipment item for each year.* *4. Insert comments/descriptions/references/explanation of calculation method under the 'Notes' column*
DIRECT LABOUR	*Direct labour is all effort directly expended by the bidder for the proposed solution.*	*1. Insert the direct labour title(s).* *2. Provide a time phased (monthly) breakdown of labour hours.* *3. Provide hourly rates against each labour title for each year.* *4. Insert comments/descriptions/references/explanation of calculation method under the 'Notes' column.*
SUBCONTRACT LABOUR	*Indirect labour is all effort expended by the sub-contractor for the proposed solution.*	*1. Insert the subcontract labour title(s).* *2. Provide a time phased (monthly) breakdown of labour hours.* *3. Provide hourly rates against each labour title for each year.* *4. Insert comments/descriptions/references/explanation of calculation method under the 'Notes' column*
TRAVEL	*Includes all travel associated with the procurement and delivery of the proposed solution.*	*1. Insert the Trip Name(s).* *2. Provide number of trips being made.* *3. Provide number of people travelling.* *4. Provide number of days per trip.* *5. Provide cost of round trip flight.* *6. Provide daily per diem rate.* *7. Insert comments/descriptions/references/explanation of calculation method under the 'Notes' column including the location & reference to SOW.*
OTHER DIRECT COSTS	*Additional direct costs directly expended by the bidder for the proposed solution that do not fit in any of the above categories.*	*1. Insert the Other Direct Cost title(s).* *2. Provide a time phased (monthly) breakdown of unit quantities.* *3. Provide unit costs against each title.* *4. Insert comments/descriptions/references/explanation of calculation method under the 'Notes' column.*
GENERAL & ADMINISTRATIVE FEE	*Additional business application fee applied to any number of the above categories.*	*1. Insert the G&A title(s).* *2. Provide the rate that is being applied.* *3. Insert the total G&A cost for each business application.* *4. Insert items that G&A factor is being applied to under the 'Reference' column.*
TOTAL FEE / PROFIT %	*Provide all FEE/PROFIT percentage applied to costs in accordance with your approved national accounting standards.*	*Provide calculation used in application of FEE/PROFIT into the price.*
OTHER FACTORS	*Provide any OTHER FACTOR percentage applied to costs in accordance with your approved national accounting standards. Insert comments/descriptions/references/explanation of calculation method under the 'Notes' column.*	*Provide calculation used in application of FACTORS into the price.*
GRAND TOTAL	*The total shall feed into the SSS.*	*Total Price including direct cost, indirect cost, rates and factors as applied above. Please do not forget to amend the title to reflect the appropriate CLIN number.*

Bidding Sheets: Schedule of Supplies and Services for IFB-CO-14150-SMC TA

CLIN(Contract Line Item Number)	DESCRIPTION	SOW Reference	Quantity	Currency	Unit Firm Fixed Price	Total Firm Fixed Price	Delivery Date (From EDC)	Delivery Site	Format
1	**Project Management**								
1.1	Project Kick-off Meeting	2.4.3.1	1				EDC + 1 Week	The Hague(NLD)	Meeting
1.2	Project Implementation Plan (PIP)	2.2	Monthly				EDC + 2 weeks	The Hague(NLD)	Report
1.3	Project Master Schedule(PMS)	2.2.2	Monthly						
1.4	Project Work Breakdown Structure(PWBS)	2.2.1	Monthly						
1.5	Risk Register	2.2.3	Monthly						
1.6	Monthly Project Checkpoint Meeting and Project Highlight Reports	2.4.1, 2.4.3.2	Monthly				EDC + 5 weeks		
	Total Firm Fixed Price CLIN 1								
2	**Engineering**								
2.1	**Architectural Deliverables**								
2.1.1	SMC Baseline Architecture (BA) Release 1.0	4.2 , 4.3.1, 4.3.2, 4.3.3	1				See Gates	The Hague(NLD)	Report
2.1.2	SMC Target Architecture(TA) Release 1.0	4.2 , 4.3.1, 4.3.2, 4.3.4	1						
2.1.3	SMC Taget Architecture(TA) Release 2.0	4.2 , 4.3.1, 4.3.2, 4.3.4	1						
2.1.4	BMC Remedy Change Management Implementation Plan	4.3.5.1, 4.4.1.1	1					Mons (BEL)	
2.1.5	BMC Remedy Request Fulfilment Implementation Plan	4.3.5.2, 4.4.1.2	1						
2.1.6	Legacy CMS Database(CAST+) Analysis and Migration Roadmap	4.3.5.3	1						
2.1.7	System Design Specification(SDS) for Unified Event Management System	4.3.5.4, 4.4.2.1	1						
2.1.8	System Design Specification(SDS) for Service Level Management System	4.3.5.5, 4.4.2.2	1						
2.1.9	Test Plan(TP)	4.4.3	1					The Hague(NLD)	
2.1.10	Security Accreditation Plan (SAP)	2.7, 4.4.4	1						
2.2	**Software Licenses**								
2.2.1	ITSM Remedy Suite End User Licenses	4.4.1	20				EDC + 14 Weeks	Mons (BEL)	Software License and Documentation
2.3	**Implementation Deliverables and Services**								
2.3.1	SMC BA Stakeholder Workshops	4.3.1, 4.3.3, 4.2	lot				See Gates	The Hague(NLD), Mons(BEL), Brussels(BEL)	Onsite Workshop, Reports
2.3.2	SM TA Stakeholder Workshops (for 1st and 2nd version development)	4.3.1 4.3.4, 4.2	lot						
2.3.3	Change Management Module Implementation	4.3.5.1, 4.4.1.1	1					Mons (BEL)	Onsite SW Installation and Configuration
2.3.4	Request Fulfilment Module Implementation	4.3.5.2, 4.4.1.2	1						
2.3.5	Unified Event Management System Implementation	4.3.5.4, 4.4.2	1						
2.3.6	Service Level Management System Implementation	4.3.5.5, 4.4.2	1						
2.3.7	SMC Project Portfolio Management Service and SMC Project Portfolio Status Meetings	4.5, 2.4.3.3	56 Weeks				EDC + 58 Weeks	The Hague(NLD)	Onsite SME Support
	Total Firm Fixed Price CLIN 2								

CLIN	DESCRIPTION	SOW Reference	Quantity	Currency	Unit Price	Total Fixed Price	Delivery Date (From EDC)	Delivery Site	Format
3	**Acceptance**								
3.1	Gate 1: SMC Baseline Architecture Acceptance	5.1	1	NSP	NSP	NSP	EDC + 13 Weeks	The Hague(NLD)	Meeting, Report
3.2	Gate 2: Design Acceptance for CLIN 2.1.4, 2.1.5, 2.1.7,2.1.8	5.2	1	NSP	NSP	NSP	EDC + 14 Weeks	Mons(BEL)	
3.3	Gate 3: SMC Target Architecture Relesease 1.0 Acceptance	5.3	1	NSP	NSP	NSP	EDC + 24 Weeks	The Hague(NLD)	
3.4	Gate 4: SMC Target Architecture Relesease 2.0 Acceptance	5.4	1	NSP	NSP	NSP	EDC + 34 Weeks	The Hague(NLD)	
3.5	Gate 5: System Acceptance Test and Security Accreditation	5.5	1	NSP	NSP	NSP	EDC + 42 Weeks	Mons(BEL)	
3.6	Gate 6: Provisional System Acceptance (PSA)	5.6	1	NSP	NSP	NSP	EDC + 50 Weeks	Brussels (BEL)	
3.7	Gate 7: Final System Acceptance (FSA)	5.7	1	NSP	NSP	NSP	EDC + 62 Weeks		
	Total Firm Fixed Price CLIN 3					NSP			
4	**Warranty**								
4.1	Warranty	6.4.2.1	1	NSP	**NSP**	**NSP**	FSA + 1 year	Mons(BEL)/The Hague(NLD)	N/A
4.2	Software Support	6.4.2.2	lot				Gate-2 until Gate-7	Mons(BEL)/The Hague(NLD)	N/A
	Total Firm Fixed Price CLIN 4								
	GRAND TOTAL FIRM FIXED PRICE EVALUATED (CLINS 1 THROUGH 4)								

NSP = Not separately priced

BIDDING SHEETS SSS IFB-CO-14150-SMC-TA AMENDMENT 1

		NOTES
Currency	Euro (EUR)	
Calendar Year (Year 1):	2015	

	Quantity	Unit Cost 2015	Unit Cost 2016	Unit Cost 2017	Unit Cost 2018	Unit Cost 2019	Unit Cost 2020	Unit Cost 2021	TOTAL COST	NOTES
1. MATERIALS										
A. PURCHASED EQUIPMENT										Please provide the sub-CLIN associated with each cost
Purchased Equipment Item Name (Item 1)	0								0.00	
Purchased Equipment Item Name	0								0.00	
B. SUBCONTRACTED EQUIPMENT/MATERIALS										
Subcontracted Equipment/Material Name	0								0.00	
Subcontracted Equipment/Material Name	0								0.00	
C. OTHER										
Other Equipment/Material Name	0								0.00	
Other Equipment/Material Name	0								0.00	
1. TOTAL DIRECT MATERIAL	0								0.00	

2015												2016												2017												2018												2019												2020												2021											
Month 1	Month 2	Month 3	Month 4	Month 5	Month 6	Month 7	Month 8	Month 9	Month 10	Month 11	Month 12	Month 13	Month 14	Month 15	Month 16	Month 17	Month 18	Month 19	Month 20	Month 21	Month 22	Month 23	Month 24	Month 25	Month 26	Month 27	Month 28	Month 29	Month 30	Month 31	Month 32	Month 33	Month 34	Month 35	Month 36	Month 37	Month 38	Month 39	Month 40	Month 41	Month 42	Month 43	Month 44	Month 45	Month 46	Month 47	Month 48	Month 49	Month 50	Month 51	Month 52	Month 53	Month 54	Month 55	Month 56	Month 57	Month 58	Month 59	Month 60	Month 61	Month 62	Month 63	Month 64	Month 65	Month 66	Month 67	Month 68	Month 69	Month 70	Month 71	Month 72	Month 73	Month 74	Month 75	Month 76	Month 77	Month 78	Month 79	Month 80	Month 81	Month 82	Month 83	Month 84
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

	OH RATE (%)	TOTAL COST	NOTES
2. MATERIAL OVERHEAD (OH)			
A. OH Rate (%) X TOTAL Material			
B. [Expand as needed]			
2. Total MATERIAL OVERHEAD (OH)		0.00	

	HOURS	RATE/HOUR 2015	RATE/HOUR 2016	RATE/HOUR 2017	RATE/HOUR 2018	RATE/HOUR 2019	RATE/HOUR 2020	RATE/HOUR 2021	TOTAL COST	NOTES
3. LABOUR										Please provide the sub-CLIN associated with each cost
Labour Category Name	0								0.00	
Labour Category Name	0								0.00	
Labour Category Name	0								0.00	
Labour Category Name	0								0.00	
3. TOTAL DIRECT LABOUR	0								0.00	

2015												2016												2017												2018												2019												2020												2021											
Month 1	Month 2	Month 3	Month 4	Month 5	Month 6	Month 7	Month 8	Month 9	Month 10	Month 11	Month 12	Month 13	Month 14	Month 15	Month 16	Month 17	Month 18	Month 19	Month 20	Month 21	Month 22	Month 23	Month 24	Month 25	Month 26	Month 27	Month 28	Month 29	Month 30	Month 31	Month 32	Month 33	Month 34	Month 35	Month 36	Month 37	Month 38	Month 39	Month 40	Month 41	Month 42	Month 43	Month 44	Month 45	Month 46	Month 47	Month 48	Month 49	Month 50	Month 51	Month 52	Month 53	Month 54	Month 55	Month 56	Month 57	Month 58	Month 59	Month 60	Month 61	Month 62	Month 63	Month 64	Month 65	Month 66	Month 67	Month 68	Month 69	Month 70	Month 71	Month 72	Month 73	Month 74	Month 75	Month 76	Month 77	Month 78	Month 79	Month 80	Month 81	Month 82	Month 83	Month 84
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

	OH RATE (%)	TOTAL COST	NOTES
4. LABOUR OVERHEAD			
A. OH Rate (%) X TOTAL LABOUR			
B. [Expand as needed]			
4. Total LABOUR OVERHEAD		0.00	

	HOURS	RATE/HOUR 2015	RATE/HOUR 2016	RATE/HOUR 2017	RATE/HOUR 2018	RATE/HOUR 2019	RATE/HOUR 2020	RATE/HOUR 2021	TOTAL COST	NOTES
5. SUBCONTRACT LABOUR										Please provide the sub-CLIN associated with each cost
Labour Category Name	0								0.00	
Labour Category Name	0								0.00	
Labour Category Name	0								0.00	
Labour Category Name	0								0.00	
5. TOTAL SUBCONTRACT LABOUR	0								0.00	

2015												2016												2017												2018												2019												2020												2021											
Month 1	Month 2	Month 3	Month 4	Month 5	Month 6	Month 7	Month 8	Month 9	Month 10	Month 11	Month 12	Month 13	Month 14	Month 15	Month 16	Month 17	Month 18	Month 19	Month 20	Month 21	Month 22	Month 23	Month 24	Month 25	Month 26	Month 27	Month 28	Month 29	Month 30	Month 31	Month 32	Month 33	Month 34	Month 35	Month 36	Month 37	Month 38	Month 39	Month 40	Month 41	Month 42	Month 43	Month 44	Month 45	Month 46	Month 47	Month 48	Month 49	Month 50	Month 51	Month 52	Month 53	Month 54	Month 55	Month 56	Month 57	Month 58	Month 59	Month 60	Month 61	Month 62	Month 63	Month 64	Month 65	Month 66	Month 67	Month 68	Month 69	Month 70	Month 71	Month 72	Month 73	Month 74	Month 75	Month 76	Month 77	Month 78	Month 79	Month 80	Month 81	Month 82	Month 83	Month 84
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

	OH RATE (%)	TOTAL COST	NOTES
6. SUBCONTRACT LABOUR O/H			
A. OH Rate (%) X TOTAL SUBCONTRACT LABOUR			
B. [Expand as needed]			
6. Total SUBCONTRACT LABOUR O/H		0.00	

7. TRAVEL UNIT TRIP COST	Number of trips	Number of	Number of Days	Unit Cost Cost per	Unit Cost Per Diem	TOTAL COST	NOTES
							Please Describe the reason for the trip
Trip Name A (Please update trip name)						0.00	
Trip Name B (Please update trip name)						0.00	
7. TOTAL TRAVEL						0.00	

	OH RATE (%)	TOTAL COST	NOTES
8.TRAVEL OVERHEAD			
A. OH Rate (%) X TOTAL TRAVEL			
B. [Expand as needed]			
8.TRAVEL OVERHEAD		0.00	

	Quantity	Unit Cost 2015	Unit Cost 2016	Unit Cost 2017	Unit Cost 2018	Unit Cost 2019	Unit Cost 2020	Unit Cost 2021	TOTAL COST	NOTES
9. OTHER DIRECT COSTS										Please provide the sub-CLIN associated with each cost.
Other Direct Cost	0.00								0.00	
Other Direct Cost	0.00								0.00	
9. TOTAL OTHER DIRECT COST									0.00	

2015												2016												2017												2018												2019												2020												2021											
Month 1	Month 2	Month 3	Month 4	Month 5	Month 6	Month 7	Month 8	Month 9	Month 10	Month 11	Month 12	Month 13	Month 14	Month 15	Month 16	Month 17	Month 18	Month 19	Month 20	Month 21	Month 22	Month 23	Month 24	Month 25	Month 26	Month 27	Month 28	Month 29	Month 30	Month 31	Month 32	Month 33	Month 34	Month 35	Month 36	Month 37	Month 38	Month 39	Month 40	Month 41	Month 42	Month 43	Month 44	Month 45	Month 46	Month 47	Month 48	Month 49	Month 50	Month 51	Month 52	Month 53	Month 54	Month 55	Month 56	Month 57	Month 58	Month 59	Month 60	Month 61	Month 62	Month 63	Month 64	Month 65	Month 66	Month 67	Month 68	Month 69	Month 70	Month 71	Month 72	Month 73	Month 74	Month 75	Month 76	Month 77	Month 78	Month 79	Month 80	Month 81	Month 82	Month 83	Month 84
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

	OH RATE (%)	TOTAL COST	NOTES
10. OTHER DIRECT COSTS O/H			
A. OH Rate (%) X TOTAL ODCs			
B. [Expand as needed]			
10. OTHER DIRECT COST O/H		0.00	

	RATE %	TOTAL COST	REFERENCE
11. General & Administrative (G&A)			
A. G&A *(Insert Business Application)*			
B. [Expand as needed]			
11. Total G&A		0.00	

	RATE (%)	TOTAL COST	NOTES
12. Total Fee/Profit %			Please provide a description of to which elements fee is being applied. Ensure a correct and working
A. [Expand as needed]			Insert Fee Formula Here
12. Total Fee Cost		0.00	

	RATE (%)	TOTAL COST	NOTES
13. OTHER FACTORS			Please provide a description of to which elements "Other factors" rate is being applied. Ensure a
A. [Expand as needed]			Insert Other Factors Formula Here
GRAND TOTAL CLIN 1		0.00	

BIDDING SHEETS SSS IFB-CO-14150-SMC-TA AMENDMENT 1

		NOTES
Currency	Euro (EUR)	
Calendar Year (Year 1):	2015	

	Quantity	Unit Cost 2015	Unit Cost 2016	Unit Cost 2017	Unit Cost 2018	Unit Cost 2019	Unit Cost 2020	Unit Cost 2021	TOTAL COST	NOTES
1. MATERIALS										
A. PURCHASED EQUIPMENT										Please provide the sub-CLIN associated with each cost
Purchased Equipment Item Name (Item 1)	0								0.00	
Purchased Equipment Item Name	0								0.00	
B. SUBCONTRACTED EQUIPMENT/MATERIALS										
Subcontracted Equipment/Material Name	0								0.00	
Subcontracted Equipment/Material Name	0								0.00	
C. OTHER										
Other Equipment/Material Name	0								0.00	
Other Equipment/Material Name	0								0.00	
1. TOTAL DIRECT MATERIAL	0								0.00	

	2015												2016												2017												2018												2019												2020												2021											
	Month 1	Month 2	Month 3	Month 4	Month 5	Month 6	Month 7	Month 8	Month 9	Month 10	Month 11	Month 12	Month 13	Month 14	Month 15	Month 16	Month 17	Month 18	Month 19	Month 20	Month 21	Month 22	Month 23	Month 24	Month 25	Month 26	Month 27	Month 28	Month 29	Month 30	Month 31	Month 32	Month 33	Month 34	Month 35	Month 36	Month 37	Month 38	Month 39	Month 40	Month 41	Month 42	Month 43	Month 44	Month 45	Month 46	Month 47	Month 48	Month 49	Month 50	Month 51	Month 52	Month 53	Month 54	Month 55	Month 56	Month 57	Month 58	Month 59	Month 60	Month 61	Month 62	Month 63	Month 64	Month 65	Month 66	Month 67	Month 68	Month 69	Month 70	Month 71	Month 72	Month 73	Month 74	Month 75	Month 76	Month 77	Month 78	Month 79	Month 80	Month 81	Month 82	Month 83	Month 84
1. TOTAL DIRECT MATERIAL	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

	OH RATE (%)	TOTAL COST	NOTES
2. MATERIAL OVERHEAD (OH)			
A. OH Rate (%) X TOTAL Material			
B. [Expand as needed]			
2. Total MATERIAL OVERHEAD (OH)		0.00	

	HOURS	RATE/HOUR 2015	RATE/HOUR 2016	RATE/HOUR 2017	RATE/HOUR 2018	RATE/HOUR 2019	RATE/HOUR 2020	RATE/HOUR 2021	TOTAL COST	NOTES
3. LABOUR										Please provide the sub-CLIN associated with each cost
Labour Category Name	0								0.00	
Labour Category Name	0								0.00	
Labour Category Name	0								0.00	
Labour Category Name	0								0.00	
3. TOTAL DIRECT LABOUR	0								0.00	

	2015												2016												2017												2018												2019												2020												2021											
	Month 1	Month 2	Month 3	Month 4	Month 5	Month 6	Month 7	Month 8	Month 9	Month 10	Month 11	Month 12	Month 13	Month 14	Month 15	Month 16	Month 17	Month 18	Month 19	Month 20	Month 21	Month 22	Month 23	Month 24	Month 25	Month 26	Month 27	Month 28	Month 29	Month 30	Month 31	Month 32	Month 33	Month 34	Month 35	Month 36	Month 37	Month 38	Month 39	Month 40	Month 41	Month 42	Month 43	Month 44	Month 45	Month 46	Month 47	Month 48	Month 49	Month 50	Month 51	Month 52	Month 53	Month 54	Month 55	Month 56	Month 57	Month 58	Month 59	Month 60	Month 61	Month 62	Month 63	Month 64	Month 65	Month 66	Month 67	Month 68	Month 69	Month 70	Month 71	Month 72	Month 73	Month 74	Month 75	Month 76	Month 77	Month 78	Month 79	Month 80	Month 81	Month 82	Month 83	Month 84
3. TOTAL DIRECT LABOUR	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

	OH RATE (%)	TOTAL COST	NOTES
4. LABOUR OVERHEAD			
A. OH Rate (%) X TOTAL LABOUR			
B. [Expand as needed]			
4. Total LABOUR OVERHEAD		0.00	

	HOURS	RATE/HOUR 2015	RATE/HOUR 2016	RATE/HOUR 2017	RATE/HOUR 2018	RATE/HOUR 2019	RATE/HOUR 2020	RATE/HOUR 2021	TOTAL COST	NOTES
5. SUBCONTRACT LABOUR										Please provide the sub-CLIN associated with each cost
Labour Category Name	0								0.00	
Labour Category Name	0								0.00	
Labour Category Name	0								0.00	
Labour Category Name	0								0.00	
5. TOTAL SUBCONTRACT LABOUR	0								0.00	

	2015												2016												2017												2018												2019												2020												2021											
	Month 1	Month 2	Month 3	Month 4	Month 5	Month 6	Month 7	Month 8	Month 9	Month 10	Month 11	Month 12	Month 13	Month 14	Month 15	Month 16	Month 17	Month 18	Month 19	Month 20	Month 21	Month 22	Month 23	Month 24	Month 25	Month 26	Month 27	Month 28	Month 29	Month 30	Month 31	Month 32	Month 33	Month 34	Month 35	Month 36	Month 37	Month 38	Month 39	Month 40	Month 41	Month 42	Month 43	Month 44	Month 45	Month 46	Month 47	Month 48	Month 49	Month 50	Month 51	Month 52	Month 53	Month 54	Month 55	Month 56	Month 57	Month 58	Month 59	Month 60	Month 61	Month 62	Month 63	Month 64	Month 65	Month 66	Month 67	Month 68	Month 69	Month 70	Month 71	Month 72	Month 73	Month 74	Month 75	Month 76	Month 77	Month 78	Month 79	Month 80	Month 81	Month 82	Month 83	Month 84
5. TOTAL SUBCONTRACT LABOUR	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

	OH RATE (%)	TOTAL COST	NOTES
6. SUBCONTRACT LABOUR O/H			
A. OH Rate (%) X TOTAL SUBCONTRACT LABOUR			
B. [Expand as needed]			
6. Total SUBCONTRACT LABOUR O/H		0.00	

7. TRAVEL UNIT TRIP COST	Number of trips	Number of	Number of Days	Unit Cost Cost per	Unit Cost Per Diem	TOTAL COST	NOTES
							Please Describe the reason for the trip
Trip Name A (Please update trip name)						0.00	
Trip Name B (Please update trip name)						0.00	
7. TOTAL TRAVEL						0.00	

	OH RATE (%)	TOTAL COST	NOTES
8.TRAVEL OVERHEAD			
A. OH Rate (%) X TOTAL TRAVEL			
B. [Expand as needed]			
8.TRAVEL OVERHEAD		0.00	

	Quantity	Unit Cost 2015	Unit Cost 2016	Unit Cost 2017	Unit Cost 2018	Unit Cost 2019	Unit Cost 2020	Unit Cost 2021	TOTAL COST	NOTES
9. OTHER DIRECT COSTS										Please provide the sub-CLIN associated with each cost.
Other Direct Cost	0.00								0.00	
Other Direct Cost	0.00								0.00	
9. TOTAL OTHER DIRECT COST									0.00	

	2015												2016												2017												2018												2019												2020												2021											
	Month 1	Month 2	Month 3	Month 4	Month 5	Month 6	Month 7	Month 8	Month 9	Month 10	Month 11	Month 12	Month 13	Month 14	Month 15	Month 16	Month 17	Month 18	Month 19	Month 20	Month 21	Month 22	Month 23	Month 24	Month 25	Month 26	Month 27	Month 28	Month 29	Month 30	Month 31	Month 32	Month 33	Month 34	Month 35	Month 36	Month 37	Month 38	Month 39	Month 40	Month 41	Month 42	Month 43	Month 44	Month 45	Month 46	Month 47	Month 48	Month 49	Month 50	Month 51	Month 52	Month 53	Month 54	Month 55	Month 56	Month 57	Month 58	Month 59	Month 60	Month 61	Month 62	Month 63	Month 64	Month 65	Month 66	Month 67	Month 68	Month 69	Month 70	Month 71	Month 72	Month 73	Month 74	Month 75	Month 76	Month 77	Month 78	Month 79	Month 80	Month 81	Month 82	Month 83	Month 84
9. TOTAL OTHER DIRECT COST	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

	OH RATE (%)	TOTAL COST	NOTES
10. OTHER DIRECT COSTS O/H			
A. OH Rate (%) X TOTAL ODCs			
B. [Expand as needed]			
10. OTHER DIRECT COST O/H		0.00	

	RATE %	TOTAL COST	REFERENCE
11. General & Administrative (G&A)			
A. G&A (Insert Business Application)			
B. [Expand as needed]			
11. Total G&A		0.00	

	RATE (%)	TOTAL COST	NOTES
12. Total Fee/Profit %			Please provide a description of to which elements fee is being applied. Ensure a correct and working
A. [Expand as needed]			Insert Fee Formula Here
12. Total Fee Cost		0.00	

	RATE (%)	TOTAL COST	NOTES
13. OTHER FACTORS			Please provide a description of to which elements "Other factors" rate is being applied. Ensure a
A. [Expand as needed]			Insert Other Factors Formula Here
GRAND TOTAL CLIN 2		0.00	

BIDDING SHEETS SSS IFB-CO-14150-SMC-TA AMENDMENT 1

		NOTES
Currency	[illegible]	
Calendar Year (Year 1):	[illegible]	

	Quantity	Unit Cost 2015	Unit Cost 2016	Unit Cost 2017	Unit Cost 2018	Unit Cost 2019	Unit Cost 2020	Unit Cost 2021	TOTAL COST	NOTES
1. MATERIALS										
A. PURCHASED EQUIPMENT										[illegible]
Purchased Equipment Item Name [illegible]	-								0.00	
Purchased Equipment Item Name	0								0.00	
B. SUBCONTRACTED EQUIPMENT/MATERIALS										
[illegible]	-								0.00	
Subcontracted Equipment/Material Name	0								0.00	
C. OTHER										
[illegible]	-								0.00	
Other Equipment/Material Name	0								0.00	
1. TOTAL DIRECT MATERIAL	0								0.00	

	OH RATE (%)	TOTAL COST	NOTES
2. MATERIAL OVERHEAD (OH)			
A. OH Rate (%) X TOTAL Material			
B. (Expand as needed)			
2. Total MATERIAL OVERHEAD (OH)		0.00	

	HOURS	RATE/HOUR 2015	RATE/HOUR 2016	RATE/HOUR 2017	RATE/HOUR 2018	RATE/HOUR 2019	RATE/HOUR 2020	RATE/HOUR 2021	TOTAL COST	NOTES
3. LABOUR										Please provide the sub-CLIN associated with each cost
Labour Category Name	0								0.00	
Labour Category Name	0								0.00	
Labour Category Name	0								0.00	
Labour Category Name	-								0.00	
3. TOTAL DIRECT LABOUR	0								0.00	

	OH RATE (%)	TOTAL COST	NOTES
4. LABOUR OVERHEAD			
A. OH Rate (%) X TOTAL LABOUR			
B. (Expand as needed)			
4. Total LABOUR OVERHEAD		0.00	

	HOURS	RATE/HOUR 2015	RATE/HOUR 2016	RATE/HOUR 2017	RATE/HOUR 2018	RATE/HOUR 2019	RATE/HOUR 2020	RATE/HOUR 2021	TOTAL COST	NOTES
5. SUBCONTRACT LABOUR										[illegible]
Labour Category Name	0								0.00	
Labour Category Name	0								0.00	
Labour Category Name	-								0.00	
Labour Category Name	0								0.00	
5. TOTAL SUBCONTRACT LABOUR	0								0.00	

	OH RATE (%)	TOTAL COST	NOTES
6. SUBCONTRACT LABOUR O/H			
A. OH Rate (%) X TOTAL SUBCONTRACT LABOUR			
B. (Expand as needed)			
6. Total SUBCONTRACT LABOUR O/H		0.00	

7. TRAVEL UNIT TRIP COST	Number of [illegible]	Number of [illegible]	Number of [illegible]	Unit Cost: Cost per [illegible]	Unit Cost: Per Diem	TOTAL COST	NOTES
							Please Describe the reason for the trip
Trip Name A (Please update trip name)						0.00	
Trip Name B (Please update trip name)						0.00	
7. TOTAL TRAVEL						0.00	

	OH RATE (%)	TOTAL COST	NOTES
8. TRAVEL OVERHEAD			
A. OH Rate (%) X TOTAL TRAVEL			
B. (Expand as needed)			
8. TRAVEL OVERHEAD		0.00	

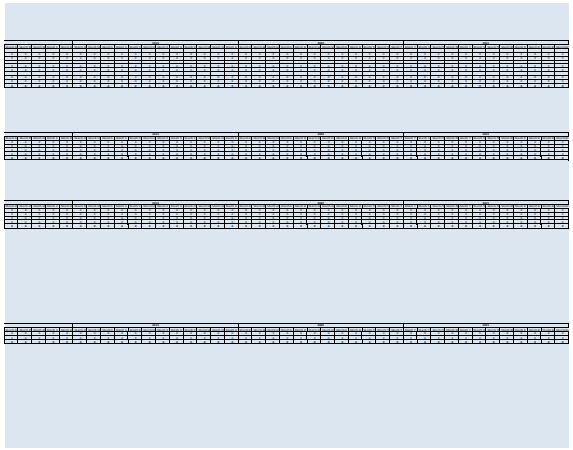
	Quantity	Unit Cost 2015	Unit Cost 2016	Unit Cost 2017	Unit Cost 2018	Unit Cost 2019	Unit Cost 2020	Unit Cost 2021	TOTAL COST	NOTES
9. OTHER DIRECT COSTS										Please provide the sub-CLIN associated with each cost
[illegible]	0.00								0.00	
Other Direct Cost	0.00								0.00	
9. TOTAL OTHER DIRECT COST									0.00	

	OH RATE (%)	TOTAL COST	NOTES
10. OTHER DIRECT COSTS O/H			
A. OH Rate (%) X TOTAL ODCs			
B. (Expand as needed)			
10. OTHER DIRECT COST OH		0.00	

	RATE (%)	TOTAL COST	NOTES
11. General & Administrative (G&A)			
A. G&A (Insert Business Application)			
B. (Expand as needed)			
11. Total G&A		0.00	

	RATE (%)	TOTAL COST	NOTES
12. Total Fee/Profit %			Please provide a description of to which elements fee is being applied. Ensure a correct and [illegible]
A. (Expand as needed)			[illegible]
12. Total Fee Cost		0.00	

	RATE (%)	TOTAL COST	NOTES
13. OTHER FACTORS			Please provide a description of to which elements "Other factors" rate is being applied.
A. (Expand as needed)			[illegible]
GRAND TOTAL CLIN 3		0.00	



					2019												2020												2021											
Month 44	Month 45	Month 46	Month 47	Month 48	Month 49	Month 50	Month 51	Month 52	Month 53	Month 54	Month 55	Month 56	Month 57	Month 58	Month 59	Month 60	Month 61	Month 62	Month 63	Month 64	Month 65	Month 66	Month 67	Month 68	Month 69	Month 70	Month 71	Month 72	Month 73	Month 74	Month 75	Month 76	Month 77	Month 78	Month 79	Month 80	Month 81	Month 82	Month 83	Month 84
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0	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**

					2019												2020												2021											
Month 44	Month 45	Month 46	Month 47	Month 48	Month 49	Month 50	Month 51	Month 52	Month 53	Month 54	Month 55	Month 56	Month 57	Month 58	Month 59	Month 60	Month 61	Month 62	Month 63	Month 64	Month 65	Month 66	Month 67	Month 68	Month 69	Month 70	Month 71	Month 72	Month 73	Month 74	Month 75	Month 76	Month 77	Month 78	Month 79	Month 80	Month 81	Month 82	Month 83	Month 84
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0	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**

					2019												2020												2021											
Month 44	Month 45	Month 46	Month 47	Month 48	Month 49	Month 50	Month 51	Month 52	Month 53	Month 54	Month 55	Month 56	Month 57	Month 58	Month 59	Month 60	Month 61	Month 62	Month 63	Month 64	Month 65	Month 66	Month 67	Month 68	Month 69	Month 70	Month 71	Month 72	Month 73	Month 74	Month 75	Month 76	Month 77	Month 78	Month 79	Month 80	Month 81	Month 82	Month 83	Month 84
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					2019												2020												2021											
Month 44	Month 45	Month 46	Month 47	Month 48	Month 49	Month 50	Month 51	Month 52	Month 53	Month 54	Month 55	Month 56	Month 57	Month 58	Month 59	Month 60	Month 61	Month 62	Month 63	Month 64	Month 65	Month 66	Month 67	Month 68	Month 69	Month 70	Month 71	Month 72	Month 73	Month 74	Month 75	Month 76	Month 77	Month 78	Month 79	Month 80	Month 81	Month 82	Month 83	Month 84
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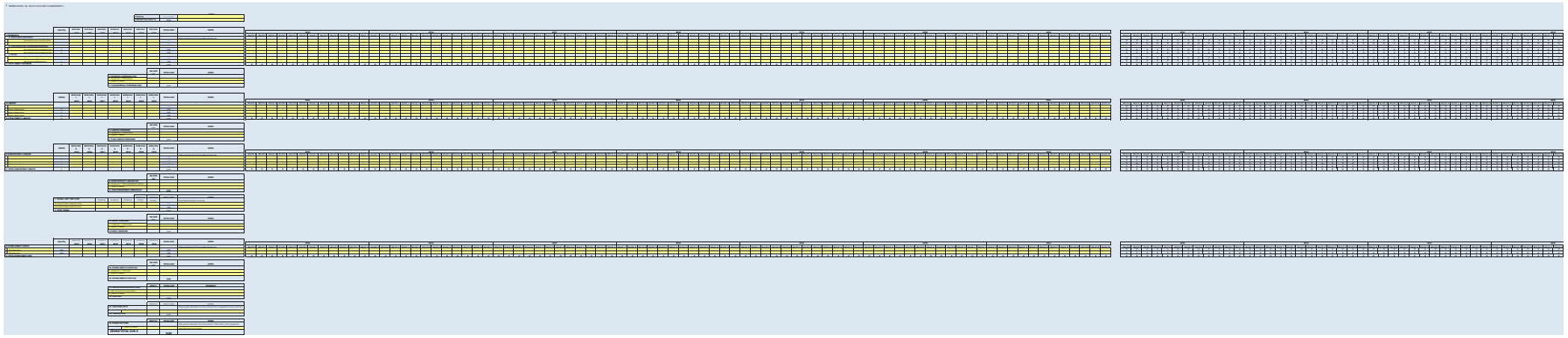

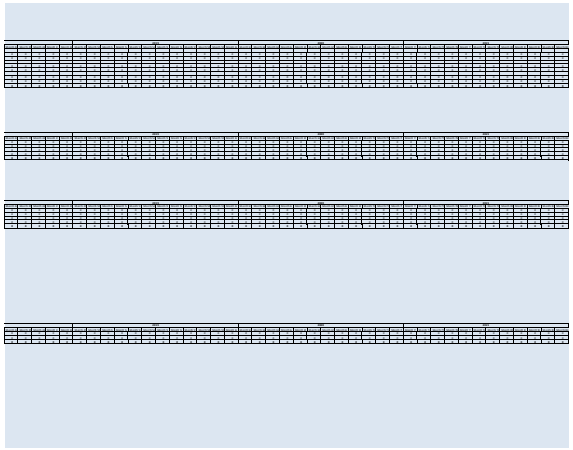

					2019												2020												2021											
Month 44	Month 45	Month 46	Month 47	Month 48	Month 49	Month 50	Month 51	Month 52	Month 53	Month 54	Month 55	Month 56	Month 57	Month 58	Month 59	Month 60	Month 61	Month 62	Month 63	Month 64	Month 65	Month 66	Month 67	Month 68	Month 69	Month 70	Month 71	Month 72	Month 73	Month 74	Month 75	Month 76	Month 77	Month 78	Month 79	Month 80	Month 81	Month 82	Month 83	Month 84
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0	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**

					2019												2020												2021											
Month 44	Month 45	Month 46	Month 47	Month 48	Month 49	Month 50	Month 51	Month 52	Month 53	Month 54	Month 55	Month 56	Month 57	Month 58	Month 59	Month 60	Month 61	Month 62	Month 63	Month 64	Month 65	Month 66	Month 67	Month 68	Month 69	Month 70	Month 71	Month 72	Month 73	Month 74	Month 75	Month 76	Month 77	Month 78	Month 79	Month 80	Month 81	Month 82	Month 83	Month 84
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Month 44	Month 45	Month 46	Month 47	Month 48	Month 49	Month 50	Month 51	Month 52	Month 53	Month 54	Month 55	Month 56	Month 57	Month 58	Month 59	Month 60	Month 61	Month 62	Month 63	Month 64	Month 65	Month 66	Month 67	Month 68	Month 69	Month 70	Month 71	Month 72	Month 73	Month 74	Month 75	Month 76	Month 77	Month 78	Month 79	Month 80	Month 81	Month 82	Month 83	Month 84
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IFB-CO-14150-SMC-TA AMD 1: Schedule of Supplies and Services									
CLIN(Contract Line Item Number)	**DESCRIPTION**	**SOW Reference**	**Quantity**	**Currency**	**Unit Firm Fixed Price**	**Total Firm Fixed Price**	**Delivery Date (From EDC)**	**Delivery Site**	**Format**
1	**Project Management**								
1.1	Project Kick-off Meeting	2.4.3.1	1				EDC + 1 Week	The Hague(NLD)	Meeting
1.2	Project Implementation Plan (PIP)	2.2	Monthly				EDC + 2 weeks	The Hague(NLD)	Report
1.3	Project Master Schedule(PMS)	2.2.2	Monthly						
1.4	Project Work Breakdown Structure(PWBS)	2.2.1	Monthly						
1.5	Risk Register	2.2.3	Monthly						
1.6	Monthly Project Checkpoint Meeting and Project Highlight Reports	2.4.1, 2.4.3.2	Monthly				EDC + 5 weeks		
	Total Firm Fixed Price CLIN 1								
2	**Engineering**								
2.1	**Architectural Deliverables**								
2.1.1	SMC Baseline Architecture (BA) Release 1.0	4.2 , 4.3.1, 4.3.2, 4.3.3	1				See Gates	The Hague(NLD)	Report
2.1.2	SMC Target Architecture(TA) Release 1.0	4.2 , 4.3.1, 4.3.2, 4.3.4	1						
2.1.3	SMC Taget Architecture(TA) Release 2.0	4.2 , 4.3.1, 4.3.2, 4.3.4	1						
2.1.4	BMC Remedy Change Management Implementation Plan	4.3.5.1, 4.4.1.1	1					Mons (BEL)	
2.1.5	BMC Remedy Request Fulfilment Implementation Plan	4.3.5.2, 4.4.1.2	1						
2.1.6	Legacy CMS Database(CAST+) Analysis and Migration Roadmap	4.3.5.3	1						
2.1.7	System Design Specification(SDS) for Unified Event Management System	4.3.5.4, 4.4.2.1	1						
2.1.8	System Design Specification(SDS) for Service Level Management System	4.3.5.5, 4.4.2.2	1						
2.1.9	Test Plan(TP)	4.4.3	1					The Hague(NLD)	
2.1.10	Security Accreditation Plan (SAP)	2.7, 4.4.4	1						
2.2	**Software Licenses**								
2.2.1	ITSM Remedy Suite End User Licenses	4.4.1	20				EDC + 14 Weeks	Mons (BEL)	Software License and Documentation
2.3	**Implementation Deliverables and Services**								
2.3.1	SMC BA Stakeholder Workshops	4.3.1, 4.3.3, 4.2	lot				See Gates	The Hague(NLD), Mons(BEL), Brussels(BEL)	Onsite Workshop, Reports
2.3.2	SM TA Stakeholder Workshops (for 1st and 2nd version development)	4.3.1 4.3.4, 4.2	lot						
2.3.3	Change Management Module Implementation	4.3.5.1, 4.4.1.1	1					Mons (BEL)	Onsite SW Installation and Configuration
2.3.4	Request Fulfilment Module Implementation	4.3.5.2, 4.4.1.2	1						
2.3.5	Unified Event Management System Implementation	4.3.5.4, 4.4.2	1						
2.3.6	Service Level Management System Implementation	4.3.5.5, 4.4.2	1						
2.3.7	SMC Project Portfolio Management Service and SMC Project Portfolio Status Meetings	4.5, 2.4.3.3	56 Weeks				EDC + 58 Weeks	The Hague(NLD)	Onsite SME Support
	Total Firm Fixed Price CLIN 2								
CLIN	**DESCRIPTION**	**SOW Reference**	**Quantity**	**Currency**	**Unit Price**	**Total Fixed Price**	**Delivery Date (From EDC)**	**Delivery Site**	**Format**
3	**Acceptance**								
3.1	Gate 1: SMC Baseline Architecture Acceptance	5.1	1	NSP	NSP	NSP	EDC + 13 Weeks	The Hague(NLD)	Meeting, Report
3.2	Gate 2: Design Acceptance for CLIN 2.1.4, 2.1.5, 2.1.7,2.1.8	5.2	1	NSP	NSP	NSP	EDC + 14 Weeks	Mons(BEL)	
3.3	Gate 3: SMC Target Architecture Relesease 1.0 Acceptance	5.3	1	NSP	NSP	NSP	EDC + 24 Weeks	The Hague(NLD)	
3.4	Gate 4: SMC Target Architecture Relesease 2.0 Acceptance	5.4	1	NSP	NSP	NSP	EDC + 34 Weeks	The Hague(NLD)	
3.5	Gate 5: System Acceptance Test and Security Accreditation	5.5	1	NSP	NSP	NSP	EDC + 42 Weeks	Mons(BEL)	
3.6	Gate 6: Provisional System Acceptance (PSA)	5.6	1	NSP	NSP	NSP	EDC + 50 Weeks	Brussels (BEL)	
3.7	Gate 7: Final System Acceptance (FSA)	5.7	1	NSP	NSP	NSP	EDC + 62 Weeks		
	Total Firm Fixed Price CLIN 3					**NSP**			
4	**Warranty**								
4.1	Warranty	6.4.2.1	1	NSP*	NSP	NSP	FSA + 1 year	Mons(BEL)/The Hague(NLD)	N/A
4.2	Software Support	6.4.2.2	lot				From Gate-2 until Gate-7	Mons(BEL)/The Hague(NLD)	N/A
	Total Firm Fixed Price CLIN 4								
	GRAND TOTAL FIRM FIXED PRICE EVALUATED (CLINS 1 THROUGH 4)								

*NSP = Not separately priced

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

IFB-CO-14150-SMC-TA
AMENDMENT 1

BOOK II

PART IV
STATEMENT OF WORK

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Section 1 Introduction

1.1 Background

NATO uses a wide array of CIS assets to achieve its strategic target, which are collectively termed the NATO CIS capability. This capability is composed of NATO owned and national assets supported by commercial services to deliver communication, information and application services to NATO users in multiple locations and security domains. Through information exchange gateways, these services are also extended to national users and communities of interest. NCI AGENCY as the primary provider of those services is responsible of management and control (SMC) of the CIS services.

CIS services are continuously being improved to align with alliance's changing needs and operational requirements. Service Management capability needs to be modernized to keep up with increasing demand and variety of the services while improving efficiency. NATO ICT Service Management Policy provides mandatory principles in terms of provision and control of services provided within NATO. [2] Some of the principles defined in this policy document are particularly important for implementation of this project:

- *In order to achieve a service-based ICT environment, NATO shall adopt ITIL as a service management framework, complemented by other industry best practices.*
- *The provision of services must be efficient, effective and measurable.*
- *To promote service management interoperability between services within NATO and at the interconnection with external entities, Service Management shall be based on NATO-agreed standards applicable to the provision, use and monitoring of all services in the enterprise.*
- *The provision of a service to a Service Customer may involve multiple Service Providers.*

It is therefore necessary to implement the Service Management & Control (SMC) capability covering the full spectrum of Technical services described in the C3 Taxonomy [5], and enable all the organisational units to operate the service management processes in order to support the political and military decision making processes and the conduct of joint, land, air and maritime operations.

NATO has an ever grooving CIS Services portfolio and historically these services are bundled to a degree with management capabilities with varying levels of maturity. Outcome of this practice resulted in distributed zones of management with varying level of maturity per service or system. Ultimately the practice of non-centralized and non-standardized service management lead to low visibility on end-to-end performance and low efficiency.

As primary CIS provider for NATO, NCI AGENCY is transitioning into a service-based organisation and undertaking the objective of increased visibility and higher operational efficiencies. To achieve this goal, the Agency is utilizing large infrastructure modernization projects like IT Modernization to centralize IT infrastructure and Support Organization.

The ITM project will transform the way IT services are provided to users across the NATO enterprise. This will be achieved by modernizing, consolidating, and centralising the infrastructure and service management, and by pooling and abstracting resources. In turn, this will allow an enterprise perspective to be taken, and services to be delivered according to

standard and measureable service level agreements, offering a higher quality, more flexible, resilient, and secure set of services at significantly lower costs to the user community.

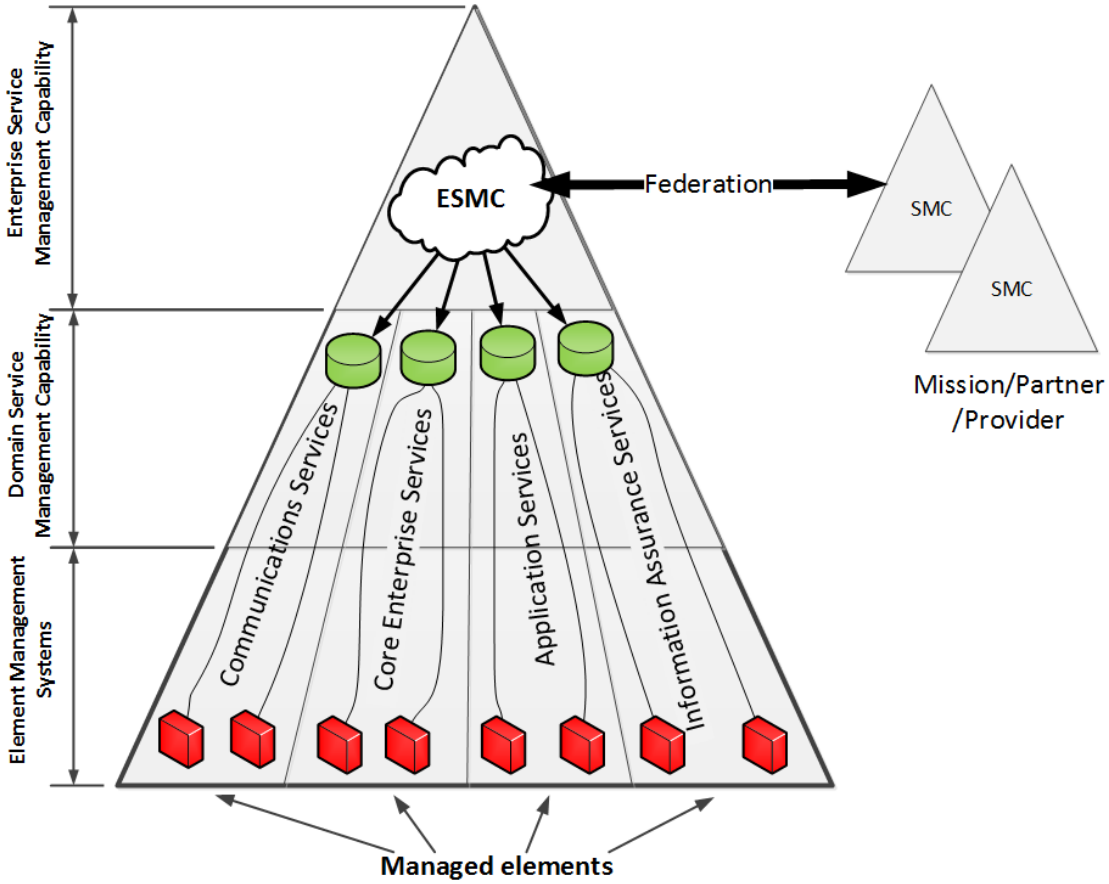

Figure 1 3-Tier SMC Capability

Enterprise SMC(ESMC) Capability can be examined in three tiers;

Enterprise Level SMC capabilities are high level management capabilities supporting business processes and are common for all enterprise. The applications and capabilities in this level can be mapped to ITIL processes & functions.

Service Domain Level SMC capabilities are specific to corresponding technical Service Domain. In this level, management is executed in technical service granularity. Examples are SATCOM Service Management, IT Infrastructure Management, and Cyber Security Service Management. These capabilities are implemented through projects or by capability packages (CP) for the major CIS domains, such as CP 9C0130 for SATCOM and CP 9C0150 for IT Infrastructure Service Management. Domain Level SMC capabilities usually involve integration of one or more Element Level SMC tools.

Element Level SMC capabilities are system management tools and mostly acquired together with the systems. These capabilities are provided by each project that implements a NATO CIS system. Mostly Element Level SMC relies on commercial off-the-shelf (COTS) SMC tools specific to an individual product or range of products. Element Level SMC can involve custom-developed SMC tools.

1.2 Scope

The primary aim of this project is to develop the SMC Baseline (as-is) & Target Architecture (to-be) Descriptions[1] (SMC BA & TA) in compliance with the NATO C3 Enterprise Architecture Policy[3] utilising NATO Architectural Framework (NAF) v.3.0 and TOGAF v9.1 in order to evolve the SMC capability as dictated by new operational requirements. The Target Architecture will describe the relevant facets of the SMC capability for the year 2022, and a migration path for reaching that from the current baseline.

The SMC Target Architecture will analyse all three levels of SMC capability defined in previous section to identify all relevant components (people, process and technology). However the focus is to describe the enterprise level SMC architecture and define integration requirements for domain level SMC into the enterprise level along with SMC federation interface.

In parallel to architecture development; implementation deliverables are planned to address urgent requirement to modernize particular legacy SMC tools. The scope of this task includes the analysis of legacy tools and databases, then to modernise by reusing current SMC tools and additional COTS software. Implementation tasks will be guided by architectural development and will also provide feedback to the architecture development.

Furthermore the SMC TA project will provide SMC projects portfolio management support by tracking SMC requirements, capabilities and plans for ongoing and planned CIS projects. It will ensure architecture development and implementations tasks will bilaterally feed each other to ensure enterprise wide alignment.

The project is composed of following activities described below:

(1) As-is Data Collection and Analysis. The objective is to develop Baseline SMC Architecture. The contractor is expected to analyse the existing NATO SMC processes and capabilities and to identify and analyse their future usability and shortfalls. Data will be gathered via surveys and interviews with relevant NCI AGENCY staff to assess the “as-is” state and short-term plans.

(2) Implementation of urgent SMC capabilities. Migration of the data and functionality of legacy management systems that are used for Change Management, Request Fulfilment into current SMC toolset and additionally implement the Unified Event Management System and Service Level Management system to develop a pilot for particular IT services.

(3) Develop SMC Target Architecture. The aim is to develop Target Architecture to define Enterprise wide end to end service management capability for 2022. The Target Architecture shall be vendor and technology agnostic. Additionally System Design Specifications will be developed for implementations mentioned in line (2). In order to address the SMC’s Integration and Federation requirements, a set of Interface Profiles will also be developed within this project.

[1]SMC Target Architecture Description will be referred as SMC Target Architecture for convenience in the rest of the document.

(4) Provide SMC Project Portfolio Management Support. This activity will establish a continuous technical level coordination between ongoing CIS projects and the corresponding SMC capabilities at the time of implementation. It will manage the functional interdependencies between the project/domain-specific management systems and the Enterprise Service Management Systems (ESMS) and ensure that manageability requirements are taken into account in system design.

1.3 Stakeholders

SMC TA will be the blueprint of SMC capabilities and those capabilities will be utilised by various stakeholders. Figure 2 provides an overview of stakeholders.

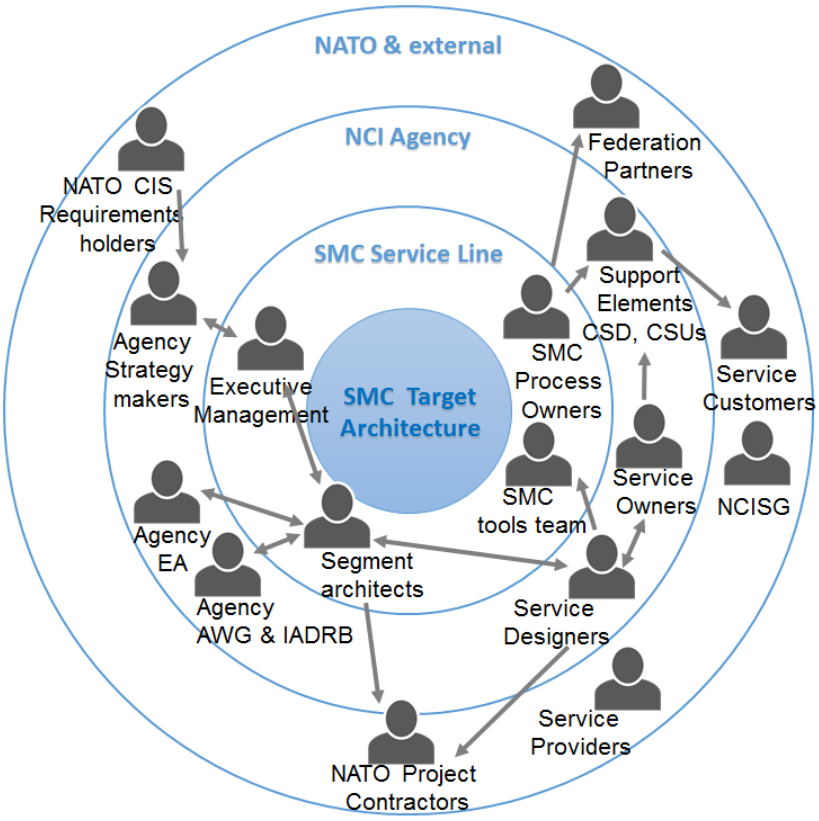

Figure 2 SMC TA Stakeholders

SMC Service Line is the major stakeholder of SMC TA project since they are responsible and accountable to implement majority of those capabilities. As the primary CIS service provider for NATO, NCI Agency will be the major user for the capabilities defined in SMC TA. Therefore the Agency will be providing the requirements for the SMC capabilities and interfaces. NATO CIS requirement holders are the third tier stakeholder indirectly affecting SMC capabilities this group also includes federation partners and service providers.

Workshops tailored for specific stakeholders will be executed to gather requirements for target SMC capability. The key inputs from each stakeholder are identified in Section 4.2.

1.4 Applicable Documents

[1] The Open Group, “TOGAF 9 - The Open Group Architecture Framework Version 9,” The Open Group, USA, 2009.

[2] AC/322-N(2014)0120-REV1, NATO ICT Service Management Policy.

[3] AC/322-D(2015)0030, NATO (C3) Enterprise Architecture Policy.

[4] NATO Architecture Framework, version 3

[5] 3-AC/322-N(2012)0092 , “C3 Taxonomy,”, June 2012.

[6] NATO FMN Implementation Plan: C-M(2015)0003-AS1, dated 30 JAN 15

[7] NCIA IT Change Management Process Definition and Execution Document, 08 October 2015

[8] NCIA Request Fulfilment Process Definition and Execution Document, 29 NOV 2014

[9] RD 3143 - SIP Proposal - Messaging Profile v.1.1

[10] CS SL Catalogue of Security Settings, Installation Guides and Configuration Guidelines. V1.4, December 2015

[11] AC/35-D/1014-REV3; - Guidelines for the Structure and Content of Security Operating Procedures (SecOPs) for CIS, 31 January 2012.

[12] AC/35-D/1021-REV3 ,Guidelines for the Security Accreditation of Communication and Information Systems (CIS), 31 January 2013

[13] Customer Request Form, DNBL Portal : https://dnbl.ncia.nato.int/nciaservicecatalogue/SitePages/Customer%20Request%20Form%20v2.aspx

[14] Customer Request Form, NR Reach Service : https://www.ncia.nato.int/Documents/Customer_Request_Form_20151130_V2-0.pdf

[15] ACMP-1 NATO Requirements do the Preparation of Configuration Management Plans, 27 February 2007

[16] ACMP-2 NATO Requirements for Configuration Identification, 27 February 2007

[17] ACMP-3 NATO Requirements for Configuration Control-Engineering Changes, Deviations and Waivers, 27 February2007

[18] ACMP-4 NATO Requirements for Configuration Status Accounting and Configuration Data Management, 27 February 2007

Section 2 Project Management and Implementation

2.1 Project Management Approach

PM-1 The Contractor shall apply a formal project methodology like PRINCE2 to the planning, delivery, and control of services under this Contract.

PM-2 The Contractor shall establish and maintain a project management team to plan, coordinate, and manage all efforts necessary to discharge all his responsibilities under this Contract. The following Contractor staff shall be identified as key personnel:

a. Project Manager (PM).

b. Architecture Lead (AL).

c. Implementation Lead (IL).

d. SMC Project Portfolio Manager (SPPM).

PM-3 Architecture and SMC Project Portfolio Management activities shall be conducted in The Hague, whereas implementation activities shall be conducted in Mons.

PM-4 The Contractor shall ensure coordination and communication between its staff members in Mons and The Hague.

PM-5 The Contractor shall provide staff with the necessary skills and experience to meet the performance requirements and objectives of this contract.

PM-6 The Contractor shall minimize personnel turnover, particularly for on-site positions, to sustain a positive learning curve.

PM-7 The Contractor personnel that will work on-site shall ALL have Security Clearances of at least NATO SECRET Level before the Contract Award, and valid during the entire project.

PM-8 The Contractor shall produce and maintain, throughout the project's life, the following project management documentation:

a. Project Implementation Plan (PIP) See Section 2.2.

b. Project Master Schedule (PMS) See Section 2.2.2.

c. Project Work Breakdown Structure (PWBS) See Section 2.2.1.

d. Risk Register. See Section 2.2.3.

PM-9 The Contractor shall deliver all project management documentation in the formats defined in section 2.6 via Project Workspace defined in section 3.1.

2.2 Project Implementation Plan

The PIP serves as project implementation documentation, including all technical aspects. The PIP evolves over time starting as a plan to the definitive as-is documentation.

PM-10 The PIP shall cover all aspects of the project implementation, including the Contractor's project management structure and project control processes, personnel assignments, schedules, external relationships, configuration management and project control necessary to provide the capability as required by this Contract.

PM-11 The PIP shall describe how the Contractor shall implement project/contract administration, including details of the controls that shall be applied to supervise Sub-Contractor performance.

PM-12 The PIP shall also define the details of liaison amongst the Purchaser, the Contractor and any Sub-Contractors.

PM-13 The PIP shall be concise and yet provide sufficient detail to allow the Purchaser to assess the Contractor's plans and capabilities in implementing the entire project in conformance with the requirements specified.

PM-14 The PIP shall cover at least the following areas:

a. Project Scope: Major Deliverables, Assumptions, Constraints

b. Project Organization: Internal Structure (project organizational diagram)

c. Personnel: Roles, Responsibilities, qualification (for onsite and off-site personnel)

d. Performance Management: Progress Reviews

e. Configuration Management Plan (Section 6.1)

PM-15 The PIP shall include the Project Master Schedule which details the milestones leading to the completion of the project. Project Master Schedule shall be in line with Schedule of Supplies and Services.

PM-16 The Contractor shall submit an initial Project Implementation Plan (PIP) two weeks after the contract award.

PM-17 The Purchaser shall review and respond after 2 week the PIP has been submitted.

2.2.1 Project Work Breakdown Structure (PWBS)

PM-18 The Contractor shall establish and maintain a Project Work Breakdown Structure (PWBS) for Contract planning and reporting to the Purchaser.

PM-19 The PWBS shall define the tasks needed to guarantee the successful management, delivery and acceptance of the project: design, survey, testing, delivery, installation, system acceptance, and support as well as management products (e.g. project plans, Project Status Reports, Purchaser reviews, provision of specific Purchaser-furnished items), including at least the initial version and the final one.

PM-20 PWBS shall identify the start and finish dates, duration, predecessors, successors, and resource requirements for each task.

PM-21 The PWBS shall decompose all tasks to a level that exposes all project risk factors and allows accurate estimation of each task's duration, resource requirements, inputs and outputs, and predecessors and successors.

PM-22 The PWBS shall be traceable to performance and delivery requirements of the Schedule of Supplies and Services.

PM-23 The Contractor shall not change the PWBS without the approval of the Purchaser.

PM-24 The PWBS shall be provided to the Purchaser for acceptance and any changes to the PWBS are required to be approved by the Purchaser's PM for acceptance.

PM-25 The workshop(s) and installation sequence and dates reflected in the PIP shall be co-ordinated by the Contractor with the Purchaser to accommodate specific requirements, exercises, holiday periods, and other considerations.

2.2.2 Project Master Schedule

PM-26 The Contractor shall establish and maintain a Project Master Schedule (PMS) that contains all contract events and milestones. The PMS shall correlate with the Project Work Breakdown Structure (PWBS) and also be traceable to performance and delivery requirements of this SOW.

PM-27 The PMS shall depict the sequence, duration, and relationship among Project work breakdown structure, stages, activities, and service areas.

PM-28 The PMS shall identify the start and finish dates, duration, predecessors, successors, and resource requirements for each work item.

PM-29 The PMS shall include the delivery dates for all management products, including at least the initial version and the final one.

PM-30 The PMS shall include activity network, activity Gantt, milestone, and critical path views of the project schedule.

2.2.3 Risk Register

PM-31 The Contractor shall perform risk management throughout the period of performance of this Contract. As part of this, the Contractor shall establish and maintain a Project Risk Register for the project.

PM-32 The Contractor shall identify for each risk the measures being taken to mitigate any risk rated as high on any factor.

PM-33 The Contractor shall make the Project Risk Register available on the Project Workspace. The Contractor shall include in the Project Highlight Report a chart that lists all active risks rated high on any factor and note any significant forecasted changes in these risks.

PM-34 The Contractor shall ensure that risks are identified early, assessed accurately, and quickly mitigated with the Purchaser.

PM-35 The Contractor shall identify any management, technical, schedule, and cost risks, evaluate each risk, and select a proposed response for each risk mentioned in the Risk Register.

PM-36 Each risk shall be rated based on its probability of occurrence and impact.

PM-37 The Contractor shall propose an appropriate response for each risk.

PM-38 If the Contractor and the Purchaser agree that the response to a risk is other than accept it, the Contractor should plan risk response tasks (start, finish, work required, resources to be used, result expected).

PM-39 The Contractor shall update the Project Risk Register before all monthly project checkpoint review meeting and brief the Purchaser in next meeting.

2.3 Purchaser Responsibilities

PM-40 The Purchaser’s Project Manager will be supported by specialists in certain areas who may, from time to time, be delegated to act on the Project Manager’s behalf in their area of expertise.

PM-41 Neither the Project Manager, the integrated project team, nor any other NATO personnel may make changes to the terms and conditions of the Contract but may only provide the Purchaser's interpretation of technical matters. All changes to the Contract will be made through the Purchaser's contracting office only.

PM-42 The Purchaser will provide the Contractor with technical descriptions of existing NATO SMC Capabilities during SMC Baseline Architecture development. (Section 4.3.3).

PM-43 The Purchaser will make available to the Contractor the facilities necessary to test and demonstrate testbed compliance with required interfaces to existing NATO systems.(Section 4.4.3)

PM-44 The Purchaser will provide permanent office space in The Hague for the Contractor's SMC Project Portfolio Manager.

PM-45 The Purchaser will provide temporary office space for the visiting and onsite contractor's personnel provided that the personnel has required level of security clearance and adhere with the local security rules.

PM-46 The Purchaser will accommodate 4 visiting contractor personnel at a given time.

PM-47 The Purchaser will provide software tools to do Architecture Development and Requirements Management. See Section 3.2

PM-48 The Purchaser will provide the Virtual Machines and Operating Systems required for the implementation tasks. The purchaser is responsible to manage configurations for those infrastructure components.(Section 3.4)

PM-49 The Contractors key personnel shall be equipped with NATO Reach Laptops provided by NCI AGENCY. The process with this service is explained in Section 3.1.

2.4 Project Controls

2.4.1 Project Highlight Reports

PM-50 The Contractor shall provide, a Project Highlight Report a day before each Project Checkpoint Review Meeting. This report shall summarise activities, including:

a. Summary of the activities during the preceding month, including the status of current and pending tasks.

b. Progress of work and schedule status, highlighting any changes since the preceding report.

c. Description of any identified problems, anomalies and high risk areas with proposed solutions and corrective actions.

d. Test(s) conducted and results.

e. Plans for activities during the following reporting period.

PM-51 An archive of Project Highlight Reports shall be maintained on the Project Workspace. (Section 3.1)

2.4.2 Quality Assurance

PM-52 The Contractor shall establish, execute, and maintain an effective quality management system throughout the contract lifetime.

PM-53 The Purchaser have the right to reject poor quality documents and deliverables without review.

2.4.3 Meetings

PM-54 Unless otherwise specified, all meetings shall be conducted at a Purchaser facilities in The Hague, Brussels or Mons on Purchaser's decision.

PM-55 Contractor shall record the meeting minutes and post them on the Project Working Space (Section 3.1) following week.

2.4.3.1 Project Kick-off Meeting

PM-56 The Contractor shall meet with the Purchaser's Project Manager and members of the Purchaser's Integrated Project Management Team at the Purchaser's facility in The Hague (NLD) within one week after Contract Award to review the schedule of activities and to discuss any preparations.

2.4.3.2 Project Checkpoint Review Meeting

PM-57 The Contractor shall organize the first PCR no later than one month after the Effective Date of Contract (EDC).

PM-58 The Contractor shall conduct Project Checkpoint Review (PCR) meeting once a month throughout the Contract period of performance.

PM-59 At each PCR, the Contractor shall provide the status of all on-going tasks, identify any changes to the PMS, PWBS, Issues, Quality, and Risk Logs.

PM-60 The Contractor shall identify and discuss problems with the Purchaser promptly, however, and not delay this until the next PCR.

PM-61 Before each PCR Contractor shall submit draft Project Highlight Report. The report shall be discussed during PCR and then finalized by the Contractor.

2.4.3.3 SMC Project Portfolio Status Meetings

PM-62 The Contactor shall conduct SMC Project Portfolio Status Meeting (SPPS) every three months starting after 5 weeks from the Kick-off Meeting date.

PM-63 The SPPS meetings shall be organized by SMC Project Portfolio Manager to update all stakeholders across NATO about updates on SMC requirements and project tracking activities defined in Section 4.5 and SMC Roadmap development.

PM-64 The SPPS meetings shall take place in Purchaser's premises in The Hague(NLD). Purchaser's Technical Lead will support the Contractor to arrange the meeting space, contact NATO stakeholders and prepare the brief.

PM-65 The Contractor shall prepare and submit the brief for SPPS at least 1 week before the agreed meeting date for Purchaser's review.

2.5 Project Key Personnel Skillset Requirements

PM-66 All Contractor's key personnel shall have a thorough knowledge of the English language. Each of the Key Personnel, as identified in Section 2.5, shall prove their ability to effectively communicate in English either by providing the following certificates or by having Bachelor's Degree from an institution with English as the language of instruction:

a. CEFR C1.

b. Test of English as a Foreign Language (TOEFL) Internet-based Test (iBT) with minimum score of 80.

c. Cambridge English Language Assessment CPE CAE grade B or C / FCE grade A.

d. ELTS with minimum score of 6 points.

PM-67 All Contractor's key personnel shall be ITIL v3 certified in at least foundation level.

2.5.1 Project Manager

PM-68 The Contractor's Project Manager shall be responsible for:

a. Project management, performance and completion of tasks and delivery orders;

b. Establishing and monitoring the project plan and schedule.

c. Allocating resources to ensure that the established and agreed upon plans and schedules are met;

d. Managing technical work, project risks, quality, and corporate performance;

e. Establishing and maintaining contact with the Purchaser and project team members;

f. Providing administrative oversight, handling contractual matters and serving as a liaison between the Purchaser and corporate management. Managing the Service Provisioning Phase of the Contract; and

g. Ensuring that all activities conform to the terms and conditions of the Contract procedures.

PM-69 The Contractor shall provide an alternate project manager as stand-in as back-up. The alternate PM shall be able to assume the role without any interruption of the tasks at hand.

PM-70 The Project Manager shall be prepared at all times to present and discuss the status of Contract activities with the Purchaser's Project Manager, Contracting Officer and/or Architecture Lead.

PM-71 The PM shall have a Master's Degree in Engineering, management or business administration.

PM-72 The PM shall have at least seven years of experience in information systems related project management, preferably including the application of a formal project management methodology such as PRINCE2.

PM-73 The PM shall have demonstrated knowledge and experience with integration and testing processes as supported by project references, points of contact, and technical descriptions of the implemented projects.

2.5.2 Implementation Lead

PM-74 The Contractor's Implementation Lead shall be responsible of:

a. Coordinate and lead all implementation related activities that will be executed in Mons.

b. Ensure continuity and coordination between architecture and implementations tasks.

c. Planning, executing and testing all implementation related tasks.

d. Coordinating with Purchaser's Technical Lead for actions needed to be taken by Purchaser.

e. Developing documentation for Testing, Evaluation and Accreditation of components used in implementation tasks.

PM-75 The Implementation Lead (IL) shall lead the design, development, integration, migration efforts of the Contractor.

PM-76 The Implementation Lead shall be in charge of Contractor's Implementation Team.

PM-77 The IL and team members shall have a University Degree in Electronic Engineering, Computer Science or related discipline, preferably equivalent to a Master's, supported by relevant certificates / diplomas. Exceptionally, extensive relevant experience may be considered if the above qualifications are not met.

PM-78 The IL shall have demonstrated practical experience in at least two of the followings products: Microsoft System Centre, ESB products, Oracle Database, BMC ITSM Remedy supported by valid certification.

PM-79 The Contractor shall provide an alternate Implementation Lead as stand-in as back-up. The alternate Implementation Lead shall be able to assume the role without any interruption of the tasks at hand.

PM-80 The Contractor shall assign at least one Subject Matter Expert during the design, implementation and testing per implementation task described in Section 4.4.

PM-81 The Implementation Team shall have vendor certifications or demonstrated practical expertise (at least 3 years) covering the following technical domains:

a. BMC ITSM Remedy 7.x and newer

b. Microsoft System Centre 2012

c. Oracle 11g or 12c

d. Deploying and configuring IT operations management solutions including but not limited to one of the below ;

   i. BMC Truesight Operations Management,

   ii. IBM Netcool,

   iii. CA Service Operations Insight,

   iv. HP Operations Manager,

   v. Or smilar.

e. Implementing XML-based web service interfaces (SOAP & REST) using Enterprise Service Bus solutions.

2.5.3 Architecture Lead

PM-82 The Contractor's Architecture Lead shall be responsible to;

a. Analyse baseline SMC capabilities, organization and processes,

b. Lead the SMC Architecture Development activities that will be executed in The Hague,

c. Support implementation tasks by developing implementation plans and design specifications.

PM-83 The Architecture Lead shall have TOGAF 9 certification and demonstrable industry experience.

PM-84 The Architecture lead shall have a University Degree in Electronic Engineering, Computer Science or related discipline, preferably equivalent to a Master's, supported by relevant certificates / diplomas. Exceptionally, extensive relevant experience may be considered if the above qualifications are not met.

PM-85 The Architecture Lead shall have at least five years of experience in developing information architecture and demonstrated expertise for an effort of similar scope.

PM-86 The Architecture Lead shall have at least Intermediate level ITIL v3 certification on Service Transition or Service Operation.

PM-87 The Architecture Lead shall have experience on an Architecture Development tool like IBM Rational System Architect tool or similar.

PM-88 The Contractor shall provide an alternate Architecture Lead as stand-in back-up. The alternate Architecture Lead shall be able to assume the role without any interruption of the tasks at hand.

2.5.4 SMC Project Portfolio Manager

The Purchaser needs a subject matter expert on service management concepts and technologies to track all SMC undertakings including CIS projects, service operations, changes in service provisioning organization to analyse and report on compliance. SMC Project Portfolio Manager has a technical requirements analyst role to support architecture development activities. Furthermore this role will manage SMC Requirements developed during architecture development and will inform both ongoing projects and architecture development about risks, issues and opportunities.

PM-89 The SMC Project Portfolio Manager shall be responsible to;

a. Track and analyse all ongoing projects and programmes for their SMC related architecture and implementation especially for following projects:

   i. NATO New Head Quarters Active Network Infrastructure (ANWI)

   ii. IT Modernization

   iii. NATO Communications Infrastructure

   iv. Federated Mission Network Concept [6]

b. Analyse all SMC related roles, processes and activities in NATO.

c. Support architecture development activities by providing updates on projects and other SMC related activities.

d. Identify discrepancies in SMC capabilities in various service domains and update risk register.

e. Coordinate communication between Architecture and Implementation teams.

PM-90 The SMC Project Portfolio Manager shall have University Degree in Electronic Engineering, Computer Science or related discipline, preferably equivalent to a Master's, supported by relevant certificates / diplomas. Exceptionally, extensive relevant experience may be considered if the above qualifications are not met.

PM-91 The SMC Project Portfolio Manager shall;

a. be able to demonstrate experience in Project Tracking, Requirements Management, and Stakeholder Communication.

b. have good interpersonal skills and be a good communicator.

c. Have experience in requirements gathering and analysis process.

d. be able to demonstrate experience in use case development using UML.

e. Be able to generate BPMN diagrams for ITIL processes.

f. be able to demonstrate experience in IBM Rational DOORS.

PM-92 The Contractor shall provide an alternate SMC Project Portfolio Manager as stand-in back-up. The alternate SMC Project Portfolio Manager shall be able to assume the role without any interruption of the tasks at hand.

2.6 Deliverable Formats

PM-93 The Contractor shall provide all deliverables electronically in a CD/DVD in one or more of the following formats:

a. Reports in Microsoft Office 2013 Excel, Word and additionally in PDF format
b. Drawings in Microsoft Visio 2013 format
c. Presentations in Microsoft Office 2013 Power Point format
d. Gant Charts, Project Plans in Microsoft Project 2010 format
e. Architecture Artefacts in IBM System Architect and as a report
f. Requirements in DOORS and as a report (Section 3.2)

PM-94 The Contractor shall use project workspace (Section 3.1) provided by Purchaser to host deliverables in progress.

PM-95 The Contractor shall provide electronic copied in CD/DVD and printed hardcopy version of all deliverables to be signed for acceptance.

2.7 System Security Requirements Specification(SSRS)

PM-96 The SSRS for the Implementation Deliverables shall be developed together with Purchaser and the Contractor before Gate 2(Section 5.2).

PM-97 The SSRS shall also include System Interconnection Specific Security Requirements (SISRS).

PM-98 The Purchaser is responsible to implement standard NATO security settings for the Purchaser Furnished Equipment including virtual machines and operating systems that shall host the COTS software delivered by the Contractor.

PM-99 Although the final SSRS shall define the detailed security requirements, the contractor shall implement the following as a minimum:

a. The Contractor is responsible to implement NATO Security Configuration[10] for the implementation deliverables defined in Section 4.4.

b. The Contractor shall use encryption to secure all communication between the components of the delivered systems and to external interfaces.

c. The Contractor shall not use any self-signed certificates for any purpose. All certificates shall be provided by the Purchaser through NPKI project.

d. The Contractor's design shall support 2-factor authentication via PFE admin Workstations.

e. The Contractor shall use NATO Active Directory for access management to all systems and services delivered. The systems shall no use local databases for identity and access management.

PM-100 The implementation architecture shall need to go through Security Accreditation process(Section 4.4.4) for it to be granted the authority to go production.

2.8 Request For Change Process(RFC)

PM-101 In case the Contractor propose a solution with COTS software components that are not certified previously by NATO, therefore not listed in Approved Fielded Product List (AFPL), it is Contractor's responsibility to follow the RFC process to certify the COTS software.

PM-102 AFPL consists of COTS software that is certified to be used in NATO Networks. This list is being hosted in DNBL portal that can be accessible from internet to DNBL members. An industrial Organization can request access by filling the form in the URL[11] and sending it to Purchaser's Project Manager.

PM-103 The Contractor shall initiate Request For Change (RFC) process for all software components which are not in listed in Approved Fielded Product List (AFPL).

PM-104 The Purchaser will process RFC requests in the order received which may take up to 2 months to complete. The Contractor is responsible for timely initiating the RFC process so that all software components are in AFPL before Gate 5.

Section 3 Purchaser Furnished Equipment and Information

3.1 REACH and Project Workspace

PM-105 The Purchaser will provide NATO Restricted REACH Laptops for each of the Contractor's key personnel duration of 2 years to the Contractor, as a service. The service will be charged to the Contractor as follows:

a. NR REACH Laptop (NR) and User Mobility Service first year [2,900 Euro],

b. NR REACH Laptop (NR) and User Mobility Service following years [1,300 Euro],

c. Secure USB sticks, to enable uploading of files produced outside the REACH environment (REACH laptops do not recognize any other USB sticks or disks).

PM-106 The REACH capability will grant the Contractor controlled access to a project collaborative environment hosted in the NATO RESTRICTED (NR) network of the Purchaser. Access will be possible over any Internet-enabled connection.

PM-107 The REACH capability will grant the Contractor access to video conferencing applications to support live interaction with the Purchaser outside the regular project checkpoint review meetings (PCR).

PM-108 After Contract Award and approval of Contractor's team members (NATO Secret Clearance), the Contractor shall request REACH Laptops for the team members using the Customer Request form on the NCI Agency internet website.[14]

PM-109 The service for the first year will be invoiced after the Contractor submits the Customer Request form to Customer's Reach Service Owner. The second year will be invoiced 12 months after the delivery of the REACH Laptops to the Contractor.

PM-110 Delivery of the REACH laptops can take 4 to 6 weeks and will be handed over to Contractor's Key Personnel as soon as possible, and remain with the Contractor until four weeks following FSA.

PM-111 The REACH laptop is linked to one person and cannot be shared between Contractor staff. The Purchaser will provide a REACH laptop and REACH services training to Contractor staff that receives a REACH laptop. The REACH laptop and REACH services training is mandatory and will take approximately 90 minutes.

PM-112 The Contractor staff intended to use the REACH laptops shall personally receive the equipment from the Purchaser. The Contractor staff, using the REACH laptop, shall attend the Purchaser's mandatory REACH laptop and services training before receipt of the laptop.

PM-113 The Contractor shall consider the annual service costs of the REACH capability, as specified in [PM-105] above, as part of the project costs.

PM-114 The Contractor shall conform to the rules for the use of REACH capability in accordance with NCIA CIS SECOPS [11]. The Contractor shall be responsible to obtain approval of their National Security Accreditation authority if required.

PM-115 The Contractor shall make available and maintain all relevant classified (up to NATO Restricted) project documentation and datasets through a Microsoft SharePoint 2013 portal, established and maintained by the Purchaser on the collaborative REACH environment.

PM-116 The Contractor shall be ready to use other collaborative tools available on the Purchaser's standard SharePoint 2013 portal environment to interact with the Purchasers on a daily basis, by means other than and complementary to NR e-mail.

3.2 Requirements Management and Architecture Development Tools

PM-117 The Purchaser is using IBM Rational DOORS 9.6 as the main requirements management tool. The Contractor shall use this tool on NATO Restricted (NR) and NATO Unclassified (NU) domains to record and manage SMC Requirements.

PM-118 The Purchaser is currently using IBM Rational System Architect (RSA) 11.4.3.4 for architecture development. The Contractor shall use this tool on NATO Restricted(NR) and NATO Unclassified (NU) domains to develop Architecture deliverables defined in Section 4.3. Followng add-ons are available for use of Contractor's team:

a. IBM Rational System Architect for DoDAF Add-on

b. IBM Rational System Architect for NAF Add-on

c. IBM Rational System Architect Publisher Add-on

3.3 ITSM Remedy Suite

NATO IT infrastructure is distributed, complex and is composed of diverse systems. Therefore there are multiple configuration and asset sources integrated with current NATO CMS.

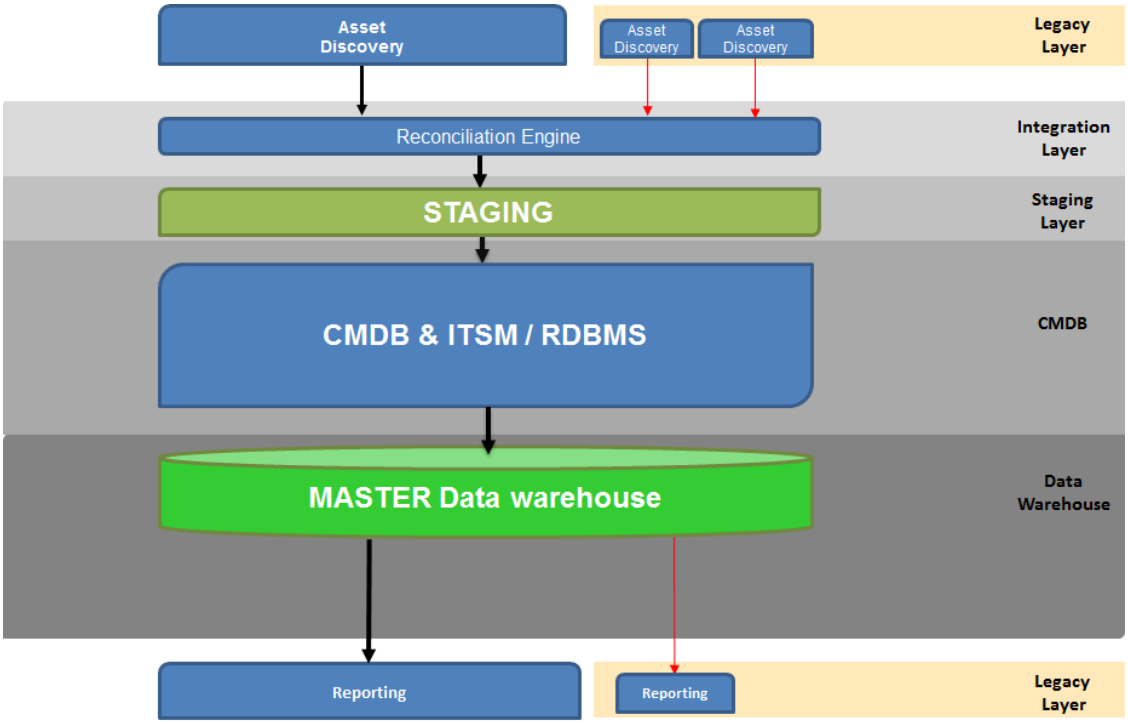

Figure 3 NATO Enterprise level CMS Logical Architecture

NATO Enterprise level CMS is based on BMC Atrium CMDB wrapped by a staging and data warehouse layers. There are multiple configuration data sources that require filtering and reconciliation before ending in the CMDB. The Integration and Staging layer provides this functionality. Master Data warehouse provides interface(s) to several consumers of configuration management system. There are legacy reporting tools currently fed by configuration data from CMS. Master Data warehouse will also be used to interface CMDB with Enterprise Business Applications. BMC Remedy Change Management and Request Fulfilment modules are already installed in NATO Secret domain.

PM-119 The Purchaser will provide access to the Contractor's Implementation team to the Master Data Warehouse through standard interfaces which will be provided during design phase.

PM-120 The Purchaser will provide testing environment for the CMS related implementation activities.

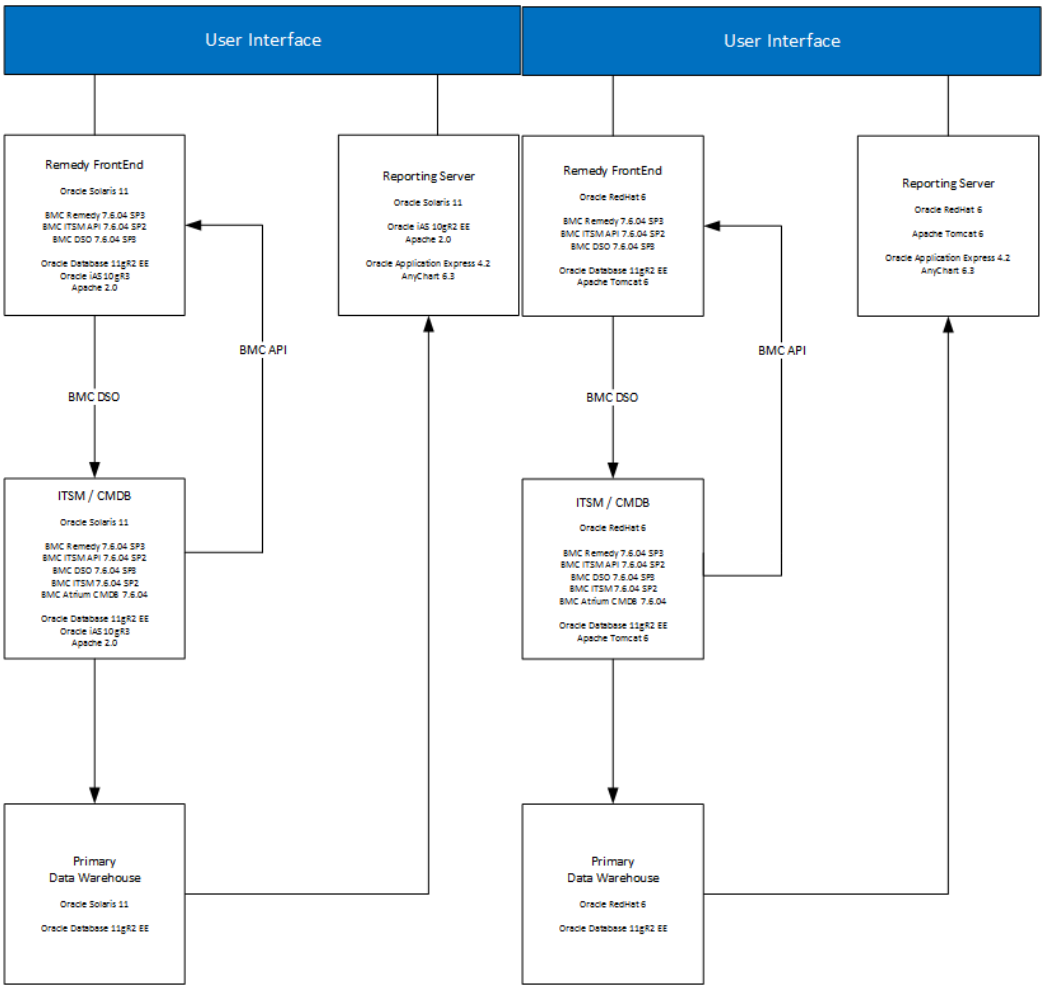

Figure 4 Configuration Management System NS & NR/NU

3.4 IaaS Hosting for Implementation and licenses

PM-121 The Purchaser will provide hosting infrastructure as a service to the Contractor to deploy the implementation deliverables with a cost. The cost of service is calculated depending on the performance, capacity and functionality of the virtual machines to be hosted. Since the design for those implementation deliverables will be delivered as a part of the project, it is not possible to identify those parameters and the exact cost. However the virtual machine baselines and platform licenses can be used for estimating the hosting costs:

a. Virtual Machine with Windows 2012, 2 Virtual CPU, 4GB RAM, 80GB Disc Space [1,661 Euro/year]

b. Virtual Machine with Windows 2012, 4 Virtual CPU, 8GB RAM, 80GB Disc Space [1,747 Euro/year]

c. Virtual Machine with Windows 2012, 8 Virtual CPU, 16GB RAM, 80GB Disc Space [1,920 Euro/year]

d. Virtual Storage 300GB [764.49 Euro/year]

e. Microsoft System Centre 2012 Standard license [760.32 Euro/year]

f. Microsoft System Centre 2012 Enterprise license [2,719.8 Euro/year]

g. Microsoft SQL 2012 Standard license [897.84 Euro/year]

h. Microsoft SQL 2012 Enterprise license [5,627.71 Euro/year]

PM-122 The Contractor shall deliver the Infrastructure Hosting Requirements(AR-63 a and AR-68 a) as part of SDS of each Implementation Deliverable in Gate 2. **As soon as** the Purchaser review and approve the design, the Contractor shall initiate request for the infrastructure hosting service. The service will be invoiced to the Contractor after the Contractor submits the Customer Request form.

PM-123 The Contractor is only responsible for the cost of infrastructure hosting for the first year of the implementation.

Section 4 Project Deliverables

4.1 Introduction

The SMC TA project has three work streams; Architecture Development, SMC Project Portfolio Management and SMC Implementations. Below figure provides an overview of those tasks and deliverables.

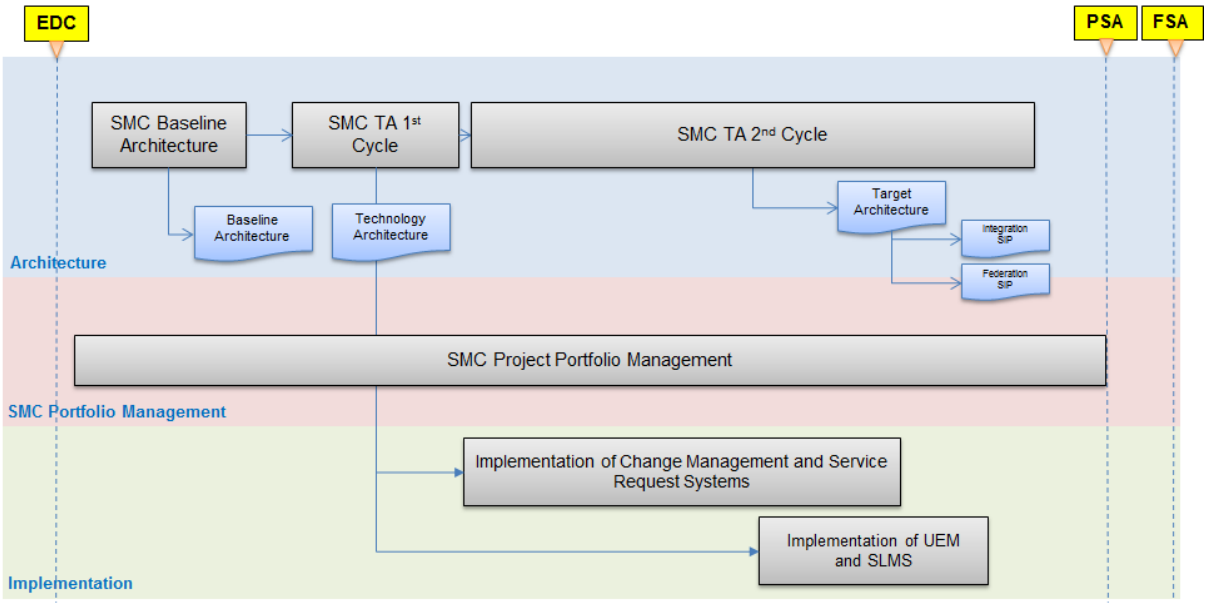

Figure 5 Major Project Deliverables and Tasks

These work streams will be executed in parallel by separate integrated teams (Contractor and Purchaser) at Mons and The Hague. The architecture development will support implementation tasks and the information gained during implementation will be fed into architecture work. In the meantime, SMC Project Portfolio Management will track all relevant CIS projects to ensure alignment and communication across all SMC stakeholders.

4.2 Architecture Vision

The following architecture vision aims to provide the necessary context on the Purchaser's current SMC capabilities and a high level view of the target level of ambition for Service Management and Control capability, in order to guide the architecture development process.

The architecture deliverables defined in this section will describe the baseline and target states of the Purchaser's SMC capability, and the corresponding implementation plans for the period from 2016 (Baseline Architecture) to 2022 (Target Architecture).

4.2.1 Problem Description

Currently NATO employs a disparate set of CIS systems management tools with basic *service* management, integration, and automation capabilities. The management systems are customised for the corresponding managed systems, do not facilitate SMC data sharing and significantly hinder centralised IT operations and service level reporting.

In order for the NCI AGENCY in its role as the NATO CIS service provider to deliver services to the specified levels whilst controlling costs, it needs to design and implement an effective enterprise SMC capability that will provide the staff with integrated tools and shared data to efficiently operate and mature quality driven SMC processes.

The expected value of the implementation of a successful SMC TA is higher efficiency in IT operations, improved visibility in deployed infrastructure and service utilisation, improved speed in on boarding new users and services and an open design that will reduce future integration costs to managed systems.

4.2.2 SMC Architecture Principles

AR-1 SMC TA shall adhere to the principles defined in NATO Alliance C3 policy on ICT Service Management[2].

AR-2 SMC TA development shall comply with the NATO C3 Enterprise Architecture policy.[3]

AR-3 The SMC TA shall be vendor and technology agnostic.

AR-4 The SMC TA shall employ the Service Oriented Architecture (SOA) pattern for loose coupling between the ESMS components and towards ESMS-DSMS integrations and external federation interfaces.

AR-5 The SMC TA shall maximize SMC processes automation within the support staff expertise and solution maintainability constraints of the NCI AGENCY.

AR-6 The SMC TA shall maximize user self-service capabilities within the user expertise and security constraints of NATO.

AR-7 The SMC TA shall minimize the total cost of ownership across the full lifecycle of a CIS service even if it entails a partial increase in service management costs.

AR-8 The SMC TA shall optimize cost and efficiency across all ITIL phases.

AR-9 The SMC TA shall optimise enterprise-wide and maximise the use of open standards-based interfaces to facilitate integration of existing and future SMC components.

AR-10 The SMC TA shall maximise reuse and integration of management components of existing and upcoming managed services including the NCI and ITM projects.

AR-11 The SMC TA shall consolidate and standardise SMC capabilities across security domains and C3 taxonomy [5] service groups.

4.2.3 Issues/Scenarios to be addressed

The Enterprise Service Management System (ESMS) consists of the technology components that consolidate common SMC functions and data at the highest level in the enterprise.

Each managed domain (generally a C3 taxonomy layer) is considered a management domain with its own Domain Service Management System (DSMS). At the element level the DSMS interfaces with Element Manager Systems (ELMs).

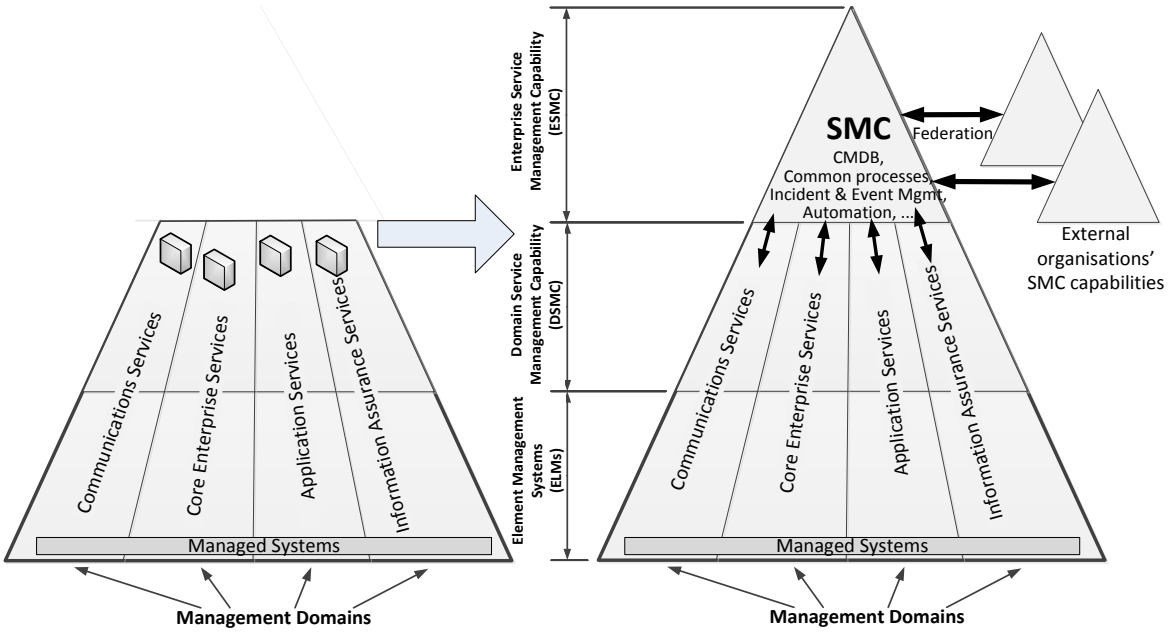

Figure 6 SMC Capability by layer

The ESMS is also envisioned to provide differentiated levels of federation with external entities (service providers and clients, NATO Nations, mission services and agencies) to match their requirements.

AR-12 The SMC Target Architecture shall address::

a. Ensure a modular Enterprise SMC system enabling best of breed selection of Solution Building Blocks from different vendors.

b. Centralise and consolidate SMC Information Assets (CIs, change records, service level metrics, etc.) to enable asset and service usage accounting, fault detection, service level management and change management.

c. Ensure Cyber Security and SMC capabilities support each other and avoid duplication of similar functions implemented on both side.

d. Enable NATO to interconnect SMC systems in a federated environment allowing SMC processes to span multiple governance domains.

e. Enable NATO to interconnect SMC systems of different security classifications allowing SMC processes to span multiple security domains.

f. Industrialize the service transition processes like verification & validation.

g. Increase service support efficiency by implementing automation and self-service.

4.2.4 Environment and Process Models

The NATO IT environment consists of multiple security and governance domains as outlined in the Figure 7. These environments require corresponding SMC capabilities which include:

- Enterprise SMC instances at NU, NR, NS domains
- Mission SMC at MISSION SECRET (MS) domain,
- Federated SMC interfaces.

AR-13 The SMC Target architecture shall support seamless execution of the SMC processes across the boundaries to the extent possible incompliance with NATO Security Policies.

AR-14 SMC Target Architecture shall define NATO Enterprise SMC as the primary capability that integrates all governance domains (horizontally) and security domains (vertically) to connect with all Domain Management Systems within the Enterprise.(Figure 7)

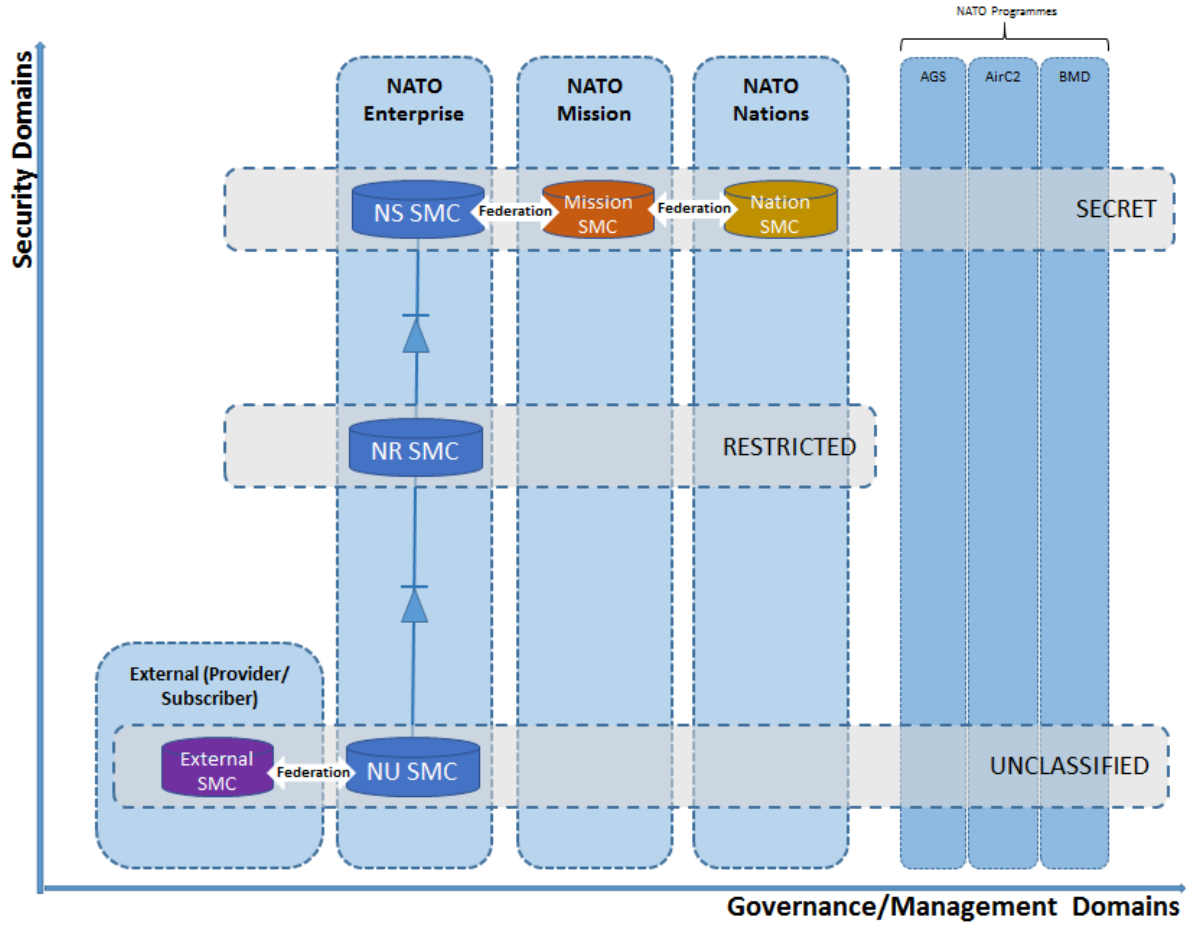

Figure 7 SMC Security and Governance Domains

4.2.5 SMC Processes and Functions scope

AR-15 SMC Target Architecture shall cover the processes listed below:

a. Service Portfolio Management

b. Demand Management

c. Financial Management for IT Services

d. Business Relationship Management

e. Design Coordination

f. Service Catalogue Management

g. Service Level Management

h. Capacity Management

i. Availability Management

j. IT Service Continuity Management

k. Information Security Management

l. Supplier Management

m. Change Management

n. Change Evaluation

o. Transition Planning and Support

p. Release and Deployment Management

q. Service Validation and Testing

r. Service Asset and Configuration Management

s. Knowledge Management

t. Event Management

u. Incident Management

v. Request Fulfilment

w. Access Management

x. Problem Management

y. Service Review

AR-16 SMC Target Architecture shall cover the functions listed below:

a. Service Desk

b. IT operations management

c. Technical Management

d. Application Management

4.2.6 Stakeholders and key inputs

SMC Baseline Architecture and SMC Target Architecture depends on stakeholder inputs that will be gathered through Stakeholder Workshops (Section 4.3.1). The stakeholders are grouped in terms of their input to provide to Architecture development.

AR-17 The Contractor shall use Stakeholder Workshops as the main source of information gathering activity however when needed additional information gathering activities will be planned together with Purchaser's Technical Lead including surveys, teleconference and video conference meetings.

Table 1 SMC TA Stakeholders and Key Inputs

Stakeholder Group	Stakeholder	Key inputs	Workshop Groups
Executive Management	General Manager, Directors, SMC SL Chief.	Strategic Requirements, Priorities, Define vision, mission and set targets	Group 1
SMC Service Line	SMC Tools Team SMC Process Owners Service Delivery Managers	Provide technical constraints Provide business process and organizational constraints	Group 2
NCI AGENCY	Service Lines, CSUs, Ops Centre	Baseline SMC Architecture (as-is), Skills/tools analysis, manning plan, training requirements, Functional/non-functional Requirements, Usability requirements, Automation requirements, Technical Service Catalogue (per SL), Service Provisioning and support model,	Group 3
	Cyber Security SL NCIRC	Information Assurance Analysis and Requirements, Develop Cyber Defence/SMC integration, Define Security Architecture for SMC Define Cross-domain SMC scenarios	Group 4
	Legacy SMC Tool Owners Relevant Process Owners	Analyse tools and processes and develop System Design Specifications for deliverables defined in 4.4.	Group 5
	Architecture Working Group	Provide Architecture constraints, guidance and quality control	Group 6
	Service Strategy	Enterprise Architecture Alignment Setting Strategic Priorities Agency Business Processes/Model Service Provisioning and support	

		model Business Service Catalogue Quality Indicators/management Requirements Agency Key Performance Indicators	
	Ongoing Infrastructure Projects: NATO Communications Infrastructure Project, New NATO HQ ANWI Project, IT Modernization Project Programmes : BMD, AGS, Air C2)	Domain SMC capabilities, interface and integration requirements, Roadmap of capabilities that would impact SMC, Guidance for ongoing projects for Enterprise SMC compliance	Group 7
	IV&V and PMIC	Validation and verification requirements, programme management requirements	
	Demand Management	Customer Perspective & Priorities	Group 8
	Finance, HR, Contracting, Project Management Office, Enterprise Business Applications Project	Supporting Service Dependencies Process Requirements	
Non-NCI Agency	FMN Secretariat, NATO Nations	Federated Mission Network SMC Requirements, Capabilities	Group 9
	NATO CIS Group	Deployed CIS Requirements, SMC Federation Requirements	
	Customers (ACO, ACT)	SLA reporting requirements(customer) Strategic and Policy Alignment	Group 10

4.2.7 Systems Context

AR-18 The key system actors that shall be examined under SMC segment are:

a. Enterprise Service Management System (ESMS) which includes:

i. Service Asset and Configuration Management subsystem (CMDB)

ii. Incident Management & request fulfilment subsystem

iii. Change Management subsystem

iv. Data Warehouse

v. Event Management subsystem

vi. Service Level Management Subsystem

b. Domain management systems (DSMSs) of each service domain

c. Enterprise Asset Management System

d. Enterprise Financial Management System

e. Enterprise Service Knowledge Management System(SKMS) (See Figure 8 for SKMS Scope)

f. Enterprise Project Management System

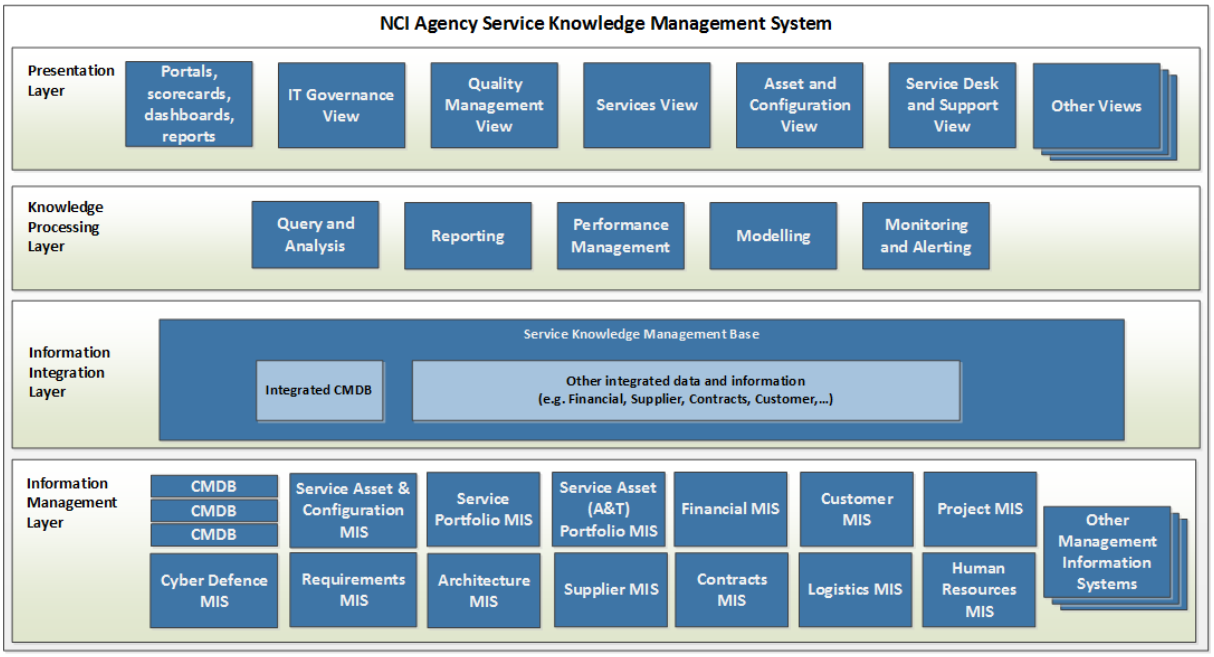

Figure 8 Service Knowledge Management System components

4.2.8 Information Products Scope

AR-19 The SMC Target Architecture shall define the following SMC information products defined in Table 2 Information Products Scope.

Table 2 Information Products Scope

Information, Tools and Systems	In scope of SMC TA
Service Portfolio	No
Configuration Management System (CMDBs)	Yes
Known Error Database	Yes
Definite Media Library	Yes
Supplier and Contract Management Information System	Yes

Availability Management Information System	Yes
Capacity Management Information System	Yes
Security Management Information System	Yes
CSI Register	Yes
Alerts & Events	Yes
Records Management	Yes
Change Records	Yes
Release Records	Yes
Service Requests	Yes
Incident Records	Yes
Problem Records	Yes
Service Level Agreements	Yes
Operational Level Agreements	Yes
Standard Operating Procedures(SOP)	No
Technical Documentation	No
Strategies, Policies and Plans	No
Reports	Yes

4.3 Architecture Deliverables

AR-20 The Contractor shall develop and deliver to the Purchaser the following main Architecture deliverables collectively termed as the “SMC Architecture Description”:

a. SMC Baseline Architecture (SMC BA) reflecting the SMC capability,

b. SMC Target Architecture (SMC TA) targeting the SMC capability,

c. Implementation plan and System Design Specification for particular implementation deliverables.

AR-21 The SMC Architecture shall cover:

a. All issues and scenario stated in Section 4.2.3

b. All the actors described in Stakeholders and Key Section (Section 4.2.6) in the Architecture Vision.

c. All the processes and functions described in SMC Processes and Functions Section (Section 4.2.5) in the Architecture Vision.

d. The system context described in Systems Context (Section 4.2.7) described in the Architecture Vision.

AR-22 The SMC Architecture shall cover the whole NATO CIS environment including:

a. All security domains (NS, NR, NU, MS)

b. All management domains including STATIC networks and non-permanent NATO CIS environments such as Deployable CIS (DCIS).

AR-23 The SMC architecture shall cover the capabilities required for the NATO enterprise to federate SMC information and operate SMC processes with external organizations like Federated Mission Networks [6] partner nations, external service providers.

AR-24 More specifically the SMC TA shall design the federation architecture (external interfaces) needed to operate the incident, request fulfilment, event, change, service level and configuration management processes in a multi provider environment.

AR-25 The Contractor shall use the TOGAF Architecture Development Method (ADM) to develop the Architecture deliverables.

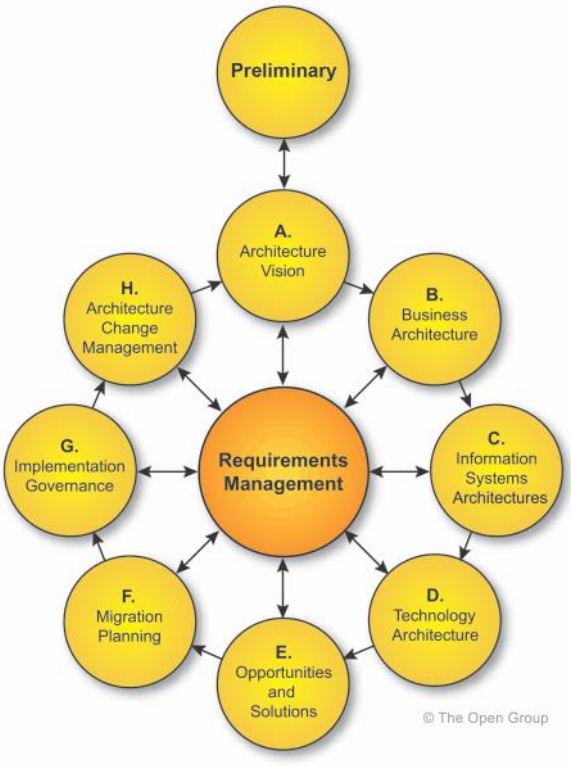

Figure 9 TOGAF ADM Phases

AR-26 The Contractor shall develop SMC Target Architecture in two iterations. As a minimum the Contractor shall perform two ADM cycles taking a “BA-first” approach as shown in Figure 10.

		Architecture Development			Transition Planning		Architecture Governance	
TOGAF Phase		Iteration 1	Iteration 2	Iteration *n*	Iteration 1	Iteration *n*	Iteration 1	Iteration *n*
Preliminary		Informal	Informal	Informal				Light
Architecture Vision		Informal	Informal	Informal	Informal	Informal		Light
Business Architecture	Baseline	Core	Light	Core	Informal	Informal		Light
	Target	Informal	Core	Core	Informal	Informal		Light
Application Architecture	Baseline	Core	Light	Core	Informal	Informal		Light
	Target	Informal	Core	Core	Informal	Informal		Light
Data Architecture	Baseline	Core	Light	Core	Informal	Informal		Light
	Target	Informal	Core	Core	Informal	Informal		Light
Technology Architecture	Baseline	Core	Light	Core	Informal	Informal		Light
	Target	Informal	Core	Core	Informal	Informal		Light
Opportunities and Solutions		Light	Light	Light	Core	Core	Informal	Informal
Migration Planning		Light	Light	Light	Core	Core	Informal	Informal
Implementation Governance					Informal	Informal	Core	Core
Change Management		Informal	Informal	Informal	Informal	Informal	Core	Core

Core: primary focus activity for the iteration

Light: secondary focus activity for the iteration

Informal: potential activity for the iteration, not formally mentioned in the method

Figure 10 BA-first ADM approach (as shown in TOGAF 19.5.2)

The Purchaser is currently using IBM Rational System Architect (RSA) for architecture development. The Purchaser will provide to the Contractor remote access through REACH Laptops to the Architecture Development tool to directly develop the deliverables on this system.

AR-27 The Contractor shall use the RSA to produce and store the required architecture deliverables (Section 3.2).

AR-28 The Contractor shall also provide the Architecture deliverables as Report in Microsoft Word format described in Section 2.6 for review and acceptance purposes.

AR-29 The Contractor shall use the TOGAF version 9 Architecture Definition Template developed by Open Group.

AR-30 The contractor shall use the Universal Modelling Language (UML) 2.4.1 to document the views where it is suitable (information model, class and component diagrams, Process/Event/Control/Product Catalogue) as specified in Table 3.

AR-31 The format and presentation of the corresponding SMC BA and SMC TA deliverables shall be aligned to enable comparison of the as-is with the to-be states.

4.3.1 Stakeholder Workshops

An initial list of stakeholders and their key inputs areas is provided in the Section 4.2.6 (Architecture Vision Stakeholders and Key Inputs). The Purchaser's Technical Lead will support the Contractor to identify and assign the individuals for each Workshop Group.

AR-32 The Contractor shall plan and conduct Baseline and Target Architecture stakeholder workshops using the stakeholder groupings defined in Table 1 .

AR-33 The Contractor shall;

a. develop Stakeholder Workshops tailored per stakeholder group using the key inputs included but not constrained to the ones provided in Table 1.

b. conduct stakeholder workshops to survey and record architecture requirements , information about the available capabilities and NATO specific constraints.

c. Conduct at least one workshop session per stakeholder group in Table 1. However particular areas may require multiple sessions because of the complexity.

d. Conduct the workshops in NCI AGENCY locations The Hague, Mons or Brussels depending the availability of meeting facilities and the location of attending personnel, decided by Purchaser.

AR-34 The Contractor shall conduct the stakeholder workshops with maximum of 10 persons from Purchaser's side at each workshop and at least 4 hour sessions.

AR-35 The Contractor shall consolidate all meeting minutes from the workshops into final "Workshop Report" after each meeting and update the project portal.

AR-36 After receiving the PIP, the Purchaser shall help the contractor to finalize stakeholder lists for workshops and refine workshop design and planning.

4.3.2 SMC Architecture Views

AR-37 The SMC Architectures shall include as a minimum the TOGAF Architecture views [1] indicated in Table 3.

AR-38 The Contractor shall read the Required Architecture Views(Table 3) as;

a. Create a new view if it is mentioned as "create" in corresponding column for Baseline and Target Architecture

b. Update the existing view if it is mentioned as "update" in corresponding column for Baseline and Target Architecture.

c. Do nothing if it is mentioned as "-"in corresponding column for Baseline and Target Architecture.

d. Notes in the Remarks column provides either reference information or describe the scope of the deliverable.

Table 3 provides the list of required Architecture Views for Baseline Architecture and Target Architecture development per ADM phase. Remarks column defines the scope of the artefact and in some cases corresponding NAF view.

Table 3 Required Architecture Views

Architecture View Number	ADM Phase	View	Baseline Architecture	Target Architecture	Remarks
1	P	Principles Catalogue	-	update	Section 4.2.2
2	A	Stakeholder Map Matrix	update	update	Table 1
3	A	Value Chain Diagram	create	create	
4	A	Solution Concept	update	create	NAF equivalent NAV-1 Overview and Summary Information
5	B	Organization/Actor Catalogue	create	create	Details will be determined during phase B with relevant stakeholders
6	B	Driver/Goal/Objective Catalogue	create	create	Service Management and Control scope only
7	B	Role Catalogue	create	create	Actual BA requirement will be determined during phase B with relevant stakeholders
8	B	Business Service/Function Catalogue	create	create	Details will be determined during phase B with relevant stakeholders
9	B	Location Catalogue	create	create	
10	B	Process/Event/Control/Product Catalogue	update	create	NAF equivalent: NOV-5 Operational Activity Model
11	B	Contract/Measure Catalogue	-	-	Out of scope.
12	B	Business Interaction Matrix	create	create	Interdependency diagram for SMC capability
13	B	Actor/Role Matrix	create	create	Enterprise SMC Roles with RACI matrix.
14	B	Business Footprint diagram	create	create	To link business functions to services to tools (Not locations)
15	B	Business Service/Information diagram	update	create	NAF equivalent: NOV-7 Information Model.
16	B	Functional Decomposition diagram	create	create	Scope: The enterprise with highlighted SMC related functions
17	B	Product Lifecycle Diagram	create	create	Delivered as a diagram and also data inserted into the Agency's portfolio management tool (IBM Focal Point)
18	B	Goal/Objective/Service Diagram	create	create	Alternative view to the "Driver/Goal/Objective Catalogue" above. Details will be determined during phase B with relevant stakeholders
19	B	Business Use Case Diagram	create	create	For all SMC services
20	B	Organizational Decomposition Diagram	-	-	Content largely covered by the "Functional Decomposition diagram" above
21	B	Process Flow Diagram	update	update	PDEDs are largely in place already for many SMC processes. TA to only take process design role for the remaining SMC

					processes after coordination with the Agency's Business Process & Quality Management Team
22	B	Event Diagram	-	create	To show process handover points and triggers.
23	C	Data Entity/Data Component Catalogue	create	create	Actual TA requirement will be determined during phase B with relevant stakeholders
24	C	Data Entity/Business Function Matrix	-	create	To identify data entities for which SMC is the authoritative source to drive data governance and reuse.
25	C	Application/Data Matrix	create	create	To assist implementation decisions and allocation of data & functions to systems.
26	C	Conceptual Data Diagram	create	create	Actual BA requirement will be determined during phase B with relevant stakeholders A more abstract version of the Logical Data Diagram provided in Architecture Vision
27	C	Logical Data Diagram	-	create	Including SMC external data sources in order to help the interfaces definition task.
28	C	Data Dissemination Diagram	create	create	Partially covered by the Data Entity/Business Function Matrix and Application/Data Matrix above. Details will be determined during phase B with relevant stakeholders
29	C	Data Security Diagram	create	create	To assist in security accreditation of the resultant SMC solutions.
30	C	Data Migration Diagram	-	create	For the applications that are to be migrated in Implementation Tasks [Section 4.4.1]
31	C	Data Lifecycle Diagram	create	Create	As a basis for SMC data retention policy. Actual BA requirement will be determined during phase B with relevant stakeholders
32	C	Application Portfolio Catalogue	-	update	Exists in the Agency's portfolio management tool (IBM Focal Point)
33	C	Interface Catalogue	create	create	Corresponding to NSV-2
34	C	Application/Organization Matrix	-	-	
35	C	Role/Application matrix	create	create	Details will be determined during phase B with relevant stakeholders
36	C	Application/Function matrix	update	create	Exists in SMC RA which is equivalent to: NSOV-4 Services to Operational Activities Mapping
37	C	Application Interaction Matrix			table listing the interfaces between applications (corresponding to NSV-1 & 2)
38	C	Application Communication Diagram		create	Including: SMC Integration SIPs SMC Federation SIPs
39	C	Application and User Location Diagram	create	create	
40	C	Application Use Case Diagram	create	create	For selective SMC applications which will be defined during project execution with relevant stakeholders.
41	C	Enterprise Manageability Diagram	create	create	A key diagram for ESMS-to-DSMS integrations

42	C	Process/ Application Realization Diagram	create	create	Details will be determined during phase B with relevant stakeholders. Only if long running cross-system SMC workflows are identified in the business architecture phase
43	C	Software Engineering Diagram	create	create	Details will be determined during phase B with relevant stakeholders
44	C	Application Migration Diagram	-	create	For the legacy applications to be migrated.
45	C	Software Distribution Diagram	create	create	To drive SMC tools further consolidation.
46	D	Technology Standards Catalogue	-	create	Corresponding to NAF NTV
47	D	Technology Portfolio Catalogue	create	create	Probably covered by the "Application Portfolio Catalogue" above. Details will be determined during phase B with relevant stakeholders
48	D	Application/Technology Matrix	create	create	Mapping of applications to technology platforms. To consult for SMC tools consolidation. Details will be determined during phase B with relevant stakeholders
49	D	Environments and Locations Diagram	create	create	
50	D	Platform Decomposition Diagram	-	-	
51	D	Processing Diagram	-	create	Only if needed for capacity estimation. Details will be determined during phase B with relevant stakeholders
52	D	Networked Computing/Hardware Diagram	-	create	Only if needed for capacity estimation. Instead of physical hardware diagrams, provide SMC hosting capacity requirements to be used as input to CES hosting service requests.
53	D	Communications Engineering Diagram	-	create	Only if needed for capacity estimation. Actual requirement will be determined during phase B with relevant stakeholders
54	E	Project Context Diagram	update	update	SMC Capability roadmap (Section 4.5)
55	R	Requirements Catalogue	update	update	ESMS and Interface Requirements and Manageability Requirements for Service domains

4.3.3 SMC Baseline Architecture

AR-39 The Contractor shall develop the SMC BA including the information below;

a. As-is management capabilities information from the stakeholder workshops.

b. SMC capabilities planned to be delivered by the major projects currently in implementation phase.

c. .Analysis of existing Configuration Management Databases.

d. Assessment of available business processes.

e. Analysis of current Cyber Security Capabilities that can be harmonised with SMC capabilities.

AR-40 The SMC BA shall provide initial analysis on available configuration management data sources.

4.3.4 SMC Target Architecture

AR-41 The Contractor shall conduct TA Stakeholder Workshops to gather SMC requirements from the stakeholders described in the Architecture Vision and use collected information to develop the SMC TA.

AR-42 The Contractor shall develop the SMC TA including as a minimum the views listed in Table 3.

AR-43 The Contractor shall develop SMC TA in two releases following TOGAF (9.1) Architecture Development Method (ADM). At the end of each Implementation and Governance phase the deliverables shall be reviewed by the Purchaser. The detailed acceptance criteria for Release 1.0 will be defined after Kick-off meeting.

AR-44 The Contractor shall identify all configuration data sources and develop a CMDB Data Model to map all relevant CIs. The Contractor shall also define the interfaces to the configuration data sources.

AR-45 The Contractor shall design for the existing CMDB Data Model which at the time of implementation will be DMTF CIM.

AR-46 The Contractor shall develop SMC requirements using the Purchaser's Requirements Management software(Section 3.2) for the following areas:

a. Enterprise-wide, common SMC requirements

b. Domain to Enterprise SMC interface requirements and Service Interface Profile (See sample SIP [9]) per domain

c. SMC Federation requirements and Service Interface Profile(SIP)

d. Interoperability Requirements with Cyber Security Situational Awareness Capability

AR-47 The Contractor shall develop the SMC TA in coordination with Purchaser's Segment Architects and the progress will be guided and monitored by the NCI AGENCY's Architectural Working Group (AWG).

AR-48 The SMC TA shall provide designs aimed at:

a. 99.9% availability measured on a weekly cycle (10.1 minutes per week downtime) for components supporting the ITIL Service Operations functions and processes.

b. 99.5% availability measured on a weekly cycle (50.4 minutes per week downtime) for components supporting the rest of the ITIL processes.

AR-49 The SMC TA shall include a Security Architecture that complies with the security mechanisms approved by NATO [7]. The Contractor shall support development of security architecture by helping Purchaser's Security Architects on developing the requirements and defining architecture building blocks.

AR-50 The Contractor shall develop Interface Profiles (See Sample SIP [9]) per interface for the following interfaces:

a. Incident Management Interface

b. Event Management Interface

c. Performance Data Interface (SLM)

d. Asset Management Interface

4.3.5 Planning and Design for Implementation Deliverables

SMC Target Architecture project will implement particular SMC capabilities that are high priority to the Purchaser. Therefore in parallel with SMC TA development, planning and design for the following items shall be developed by the Contractor.

4.3.5.1 BMC Remedy Change Management Module Implementation Plan

Purchaser has been utilising a legacy software tool, developed in-house called CAMS to manage and track the Change Management process. CAMS also provides the users the ability to monitor the activities of all Change Advisory Boards (CAB) to ensure that Change Management policy and procedures are being adhered to. The Purchaser has recently implemented BMC Remedy ITSM Change Management module but did not consolidated the change processes and migrate all the relevant data from CAMS.

AR-51 The Contractor shall analyse the following items in a specific BA stakeholder workshop:

a. Change management process with Purchaser's Change Managers,

b. Data model and workflow of CAMS with the System Owner,

c. Current ITSM Change Management implementation with Purchaser's ITSM Tools Team.

AR-52 The Contractor shall implement Purchaser's Change Management process [7] by taking into account of implemented workflows and stored data in CAMS application.

AR-53 The Implementation Plan shall be composed of:

a. Functional and non-functional requirements defined during the specific stakeholder workshop,

b. Current Configuration of ITSM Change Management Module,

c. Proposed changes in configuration of ITSM Change Management Module,

d. Detailed Task plan for implementation,

e. Test Cases developed with CAMS System Owner.

AR-54 The Contractor shall work with Purchaser's tools team to finalize the Implementation Plan.

4.3.5.2 BMC Remedy Service Request Management Module Implementation plan

Service Request Tracking System is an in-house developed, work flow management software for automating the service provisioning for Communication Services only, from request to implementation and cessation at the end of its service life. The Purchaser aims to implement its Service Request fulfilment process in BMC ITSM toolset and migrate workflows and CIs in SRTS into BMC ITSM tool.

AR-55 The Contractor shall analyse the following items in a specific BA stakeholder workshop:

a. Request Fulfilment process with Process Owner,

b. Data model and workflow of SRTS with System Owner,

c. Current ITSM implementation with Purchaser's tools team.

AR-56 The Contractor shall implement Purchaser's Request Fulfilment process [7] by taking into account of workflows and data in SRTS.

AR-57 The Implementation Plan shall be composed of:

a. Functional and non-functional requirements recorded during the stakeholder meeting,

b. Current Configuration of relevant ITSM Modules,

c. Proposed changes in configuration of ITSM Request Fulfilment Module,

d. List of Data to be migrated from SRTS into ITSM CMDB,

e. Detailed Task plan for implementation and data migration,

f. Impact and Risk analysis of migration,

g. Test Cases developed with SRTS System Owner.

AR-58 The Contractor shall work with Purchaser's tools team to finalize the Implementation Plan.

4.3.5.3 Legacy CMS Database (CAST+) Analysis and Migration Roadmap

The Purchaser has developed an Oracle based database application named CAST+ which stores configuration database and business logic for NNCS applications. NATO Network Control System (NNCS) is composed of several SMC applications being used for executing day-to-day service management (including CAMS, SRTS). The objective of this task is to analyse the database schema and workflow to prepare for migration of legacy data and applications to a modern platform.

AR-59 The Contractor shall provide onsite (Mons (BEL)) SME to conduct analysis and develop report at least for 3 months.

AR-60 The contractor shall analyse CAST+ Database and dependent NNCS applications to

a. Survey NNCS application owners to develop the business processes and workflow requirements of CAST+ migration.

b. Develop data models and views in the form of Entity Relationship Diagrams (ERDs) and Data Flow Diagrams (DFDs) to support planning of a future migration of CAST+.

c. Application dependencies of CAST+.

d. A roadmap to migrate data and applications dependent on CAST+ to a modern solution based on capabilities that will be delivered in short term.

4.3.5.4 System Design Specification (SDS) for Unified Event Management System (UEMS)

The Purchaser is currently using separate systems to handle events for each service domain. The objective of this task is to unify the event management process across management domains to enable proactive handling of failures and root cause analysis. This will be achieved by deploying an event management system leveraging common agents, existing DSMSs and the Unified Enterprise Service Bus to implement the event data flows from the service components to the UEMS.

AR-61 The Contractor's Implementation Lead shall work with Service Support Management Tools Branch (Mons, BEL) to develop SDS for UEMS.

AR-62 The System Design Specification as a minimum shall be composed of following NAF 3.1 Views:

a. NAV-1 Overview and Summary Information

b. NCV-1 Capability Vision, NCV-2 Capability Taxonomy, NCV-4 Capability Dependencies

c. NOV-2 Operational Node Connectivity, NOV-3 Operational Information Requirements, NOV-5 Operational Activity Model

d. NSV-1 System Interface Design, NSV-4 System Functionality Description, NSC-5 System Function to Operational Activity Matrix, NSV-10a Systems Rule Model, NSV-11b Physical Data Model

e. NTV-1 Technical Standards Profile, NTV-2 Technical Standards Forecast

f. NSOV-2 Service Definitions, NSOV-3 Services to Operational Mapping

AR-63 The System Design Specification shall include the following information to support the implementation:

a. Minimum Infrastructure Hosting Requirements of the COTS Software,

b. Configuration/Installation Guide,

c. Impact and Risk Assessment for the Installation,

d. Test Plan including Security Test and Verification Plan.

AR-64 The Contractor's Implementation Lead shall work with Service Support Management Tools Branch (Mons, BEL) on-site to develop SDS for UEMS.

AR-65 The Contractor shall develop a SDS for Unified Event Management System that:

a. Supports open standards to intake performance and event data from domain management and element management systems

b. Supports performance data parsing and event management policy enforcement.

c. Shall not require disruptive changes[2] to current (Baseline) tools.

d. Utilise a component that implements the SOA loose coupling approach specified in the architecture principles.

[2] Changes that won't impact on function, performance or security settings which are testable.

4.3.5.5 System Design Specification (SDS) for Service Level Management System

The Purchaser is currently using an in-house developed tool to collect performance data, calculate KPIs and report on Service Levels. The objective of this task is to deploy a modern end-2-end service level reporting capability ideally leveraging common agents and the SOA to implement the performance data flows from the service components to the SLMS. Four services have been selected for the pilot implementation of the SLM.

AR-66 The Contractor's Implementation Lead shall work with Service Support Management Tools Branch (Mons, BEL) to develop SDS for SLMS for the selected services(See Section 4.4.2.2)

AR-67 The System Design Specification as a minimum shall be composed of following NAF 3.1 Views:

a. NAV-1 Overview and Summary Information

b. NCV-1 Capability Vision, NCV-2 Capability Taxonomy, NCV-4 Capability Dependencies

c. NOV-2 Operational Node Connectivity, NOV-3 Operational Information Requirements, NOV-5 Operational Activity Model

d. NSV-1 System Interface Design, NSV-4 System Functionality Description, NSC-5 System Function to Operational Activity Matrix, NSV-10a Systems Rule Model, NSV-11b Physical Data Model

e. NTV-1 Technical Standards Profile, NTV-2 Technical Standards Forecast

f. NSOV-2 Service Definitions, NSOV-3 Services to Operational Mapping

AR-68 The System Design Specification shall include the following information to support the implementation:

a. Minimum Infrastructure Hosting Requirements of the COTS Software,

b. Configuration/Installation Guide,

c. Impact and Risk Assessment for the Installation,

d. Test Plan including Security Test and Verification Plan

4.4 Implementation Deliverables

The Purchaser's Service Management capabilities are currently based mainly on BMC Remedy ITSM and Microsoft System Centre products. However there are several legacy, in-house developed applications which are still used to handle processes like Change Management, Request Fulfilment for specific service domains.

The Purchaser intends to transfer the processes that are executed by these legacy tools into modern COTS toolsets, which would result in standardization and operational efficiency. The Contractor will analyse the process and data that is handled by these legacy toolsets. Based on the analysis the Contractor will implement the SMC processes and migrate the data.

In addition to this activity there is an urgent need to implement the Unified Event Management (UEMS) and Service Level Management (SLMS) systems. These two systems will standardize performance and availability data gathering from underlying technical services.

IR-2 The Contractor shall make use of Enterprise Agreements and Licenses owned by the Purchaser if the selected components are already in Purchaser's inventory.

IR-3 The Contractor shall only use COTS software to fulfil implementation requirements defined in this section.

IR-4 The Contractor shall execute all implementation related tasks (setup, test, and acceptance) on premises (SHAPE, Mons) with the Purchaser's Service Support Management Tools Branch by Contractor's implementation team.

IR-5 The Contractor shall install and implement all components initially in development/testing environment provided by the Purchaser. After successful testing the Contractor shall install all the components of the solution in production environment.

IR-6 The Contractor shall deliver all the system and end user software licenses and installation material including CD/DVDs, download URL, installation documentation prior to the start of implementation tasks.

4.4.1 Implementation of Change Management and Request Fulfilment Modules

IR-7 The Contractor shall assign at least one subject matter expert for this task that will provide onsite engineering services during implementation, testing and acceptance.

IR-8 The Contractor shall provide 20 floating BMC ITSM end-user licenses before Gate 5 (Section 5.5).

IR-9 The Contractor shall start implementation not later than 2 weeks after Gate 2 (See Section 5.2)

4.4.1.1 Change Management Implementation

The Purchaser has already installed BMC ITSM Change Management module but haven't completed the deployment of the processes and data migration to retire the legacy application.

IR-10 The Contractor shall complete the implementation of the BMC Remedy ITSM Change Management module to replace the legacy SMC tool CAMS on the NS Domain by implementing the architecture description developed previously. (Section 4.3.5).

IR-11 The Contractor shall conduct tests with actual users of CAMS application to test that functional and non-functional requirements are met with ITSM implementation.

4.4.1.2 Request Fulfilment System Implementation

IR-12 The Contractor shall implement the appropriate BMC Remedy ITSM Suite modules to replace the legacy SMC tool SRTS on the NS domain by implementing the architecture description developed (Section 4.3.5).

IR-13 The Contractor shall conduct tests with actual users of the SRTS application to test functional and non-functional requirements are met with the ITSM implementation.

4.4.2 Implementation of new SMC capabilities

Purchaser aims to implement particular SMC capabilities to address critical gaps in Event Management and Service Level Management. Due to the limited scope of the project, these new SMC capabilities will be pilot capabilities that will be implemented in production environment. The experience gained with these activities shall be utilised in upcoming projects to extend the footprint.

The main outcome of this task is to develop a vendor agnostic mechanism for event collection which can integrate to multiple management domains. Then this event management mechanism will be used to build an SLM reporting capability for selected set of services.

Figure 11 provides a high level view of the Unified Event Management (UEM) system and Service Level Management (SLM) capabilities and their components defined on logical level. The components in black/grey are Purchaser's systems that Contractor shall integrate with. The Contractor shall deliver systems defined in following sections are shown in blue in the figure.

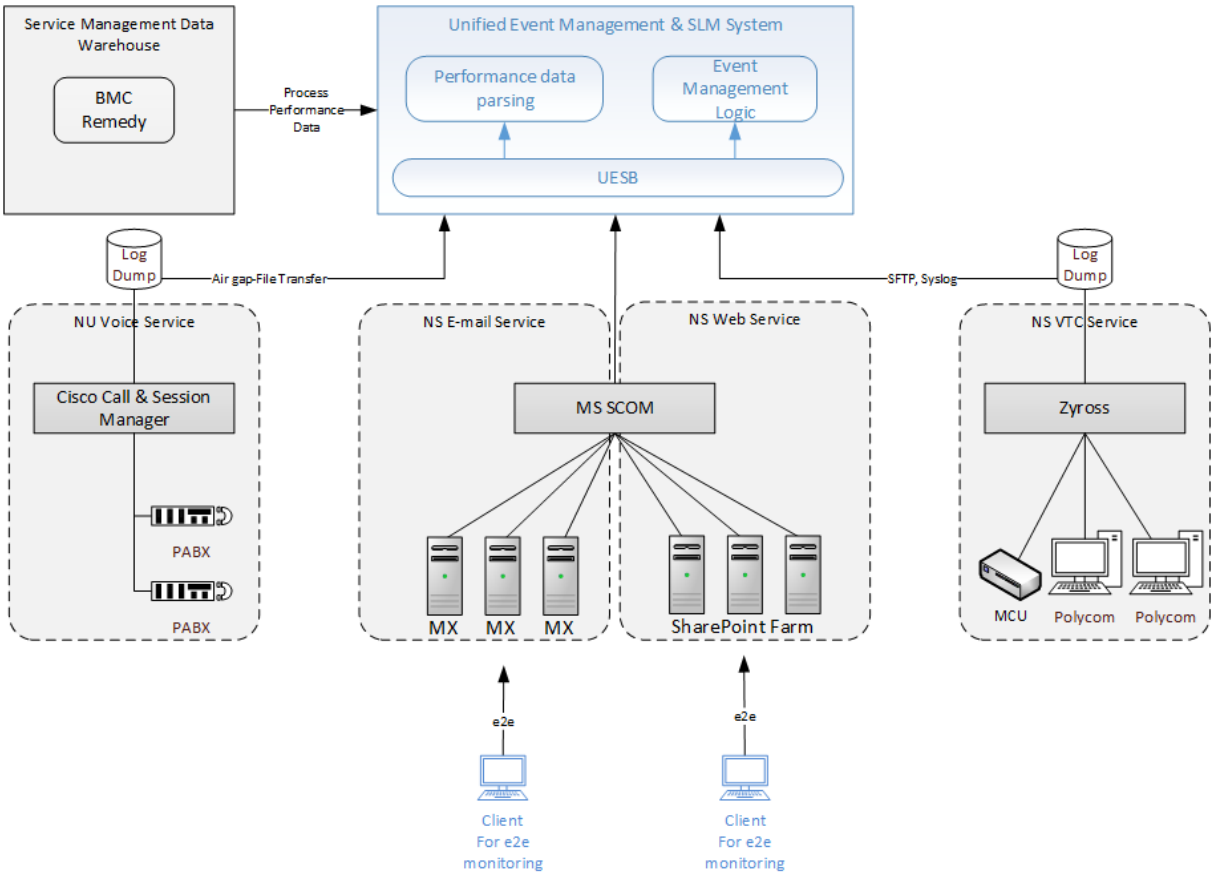

Figure 11 Implementation of UEM and SLM capabilities

Selected services have corresponding domain management systems and the UEM system shall interface with these Domain Management Systems to collect event information. Unified Enterprise Service Bus (UESB) is used as abstraction layer to create a vendor agnostic, standardized event collection capability. SLM will process event information coming from UEMS to generate SLA reports. In order to provide SLA reporting for the selected 4 services, particular KPIs can be calculated or gathered from the Incident Management System(BMC Remedy) which is accessible through Data Warehouse via standard interfaces (XML). Therefore the SLM system is expected to pull process performance related data from the Service Management Data Warehouse.

IR-14 The Contractor shall use the PFE IT infrastructure(Section 3.4) that has been identified in SDS and approved by the Purchaser including:

a. Virtual Machines and Operating Systems

b. Network and firewall setups

c. Platform and Database instances

IR-15 The Contractor shall configure all relevant components of the solution described in the SDS according to NATO Security Policies [10].

IR-16 The Contractor shall execute tests that has been identified in Test Plans within SDS developed.

IR-17 The Contractor shall support the execution of security tests defined in SAP (Section 4.4.4)

IR-18 The UEMS and SLMS systems described in sections 4.4.2.1 and 4.4.2.2 shall provide 99.9% availability and maximum 2 seconds user interface response time.

4.4.2.1 Unified Event Management System (UEMS)

IR-19 The Contractor shall implement a Unified Event Management System (UEMS) on the NS domain by implementing the architecture description developed (Section 4.3.5).

IR-20 The UEMS shall be able to receive event information from the four target services listed in sections 4.4.2.2.1, 4.4.2.2.2, 4.4.2.2.3, 4.4.2.2.4.

IR-21 The UEMS shall be configured to support all steps of the ITIL v3 Event Management process.

IR-22 The UEMS shall be configurable to provide different views for different support teams based on event type, impact and management domain.

IR-23 The UEMS shall be able to correlate event information from different management domains.

IR-24 The UEMS shall be able to de-duplicate related event information to reduce the volume of events that the IT Operations team needs to review.

IR-25 The UEMS shall provide the user with a configurable function allowing them to initiate remediation actions (restart an OS service, execute a script) from the UEM screen.

IR-26 The UEMS shall provide a root cause analysis function able to correlate events and CI information and suggest probable causes for each alert.

IR-27 The UEMS shall provide a web service API able to receive event information from other systems and acknowledge taking ownership of the events.

IR-28 The UEMS shall provide a web service API able to send event information to other systems.

IR-29 The UEMS shall support twice the message volume required to monitor the target services as specified in sections 4.4.2.2.1, 4.4.2.2.2, 4.4.2.2.3, 4.4.2.2.4.

IR-30 Indicatively the current number of events per day for each service is:

Table 4 Events per day

Service	Events per day
NU VoIP	10000
NS VTC	1000000
NS Exchange	1700
NS Portal	400000

IR-31 The UEMS shall enable the Purchaser to define a data retention policy matching evolving maintenance and auditing requirements.

The mean size for both events and raw performance measurements is 100 Bytes per record.

Table 5 Events retention period

Type of events	Estimated subset	Retention period (days)
All (after deduplication)	100%	7
Critical	1%	730
Tagged for root cause analysis	1%	365

IR-32 The contractor shall work with the Purchaser to develop more detailed requirements for the UEMS while developing SDS to be reviewed and validated by the Purchaser.

The Purchaser aims to implement a standard set of integration and federation APIs for SMC functions. The key implementing component for this will be a Unified Enterprise Service Bus (UESB) which will implement the APIs and act as an API gateway to the internal ESMS components.

IR-33 The Contractor shall implement a Service Bus component to enable the ESMS to exchange SMC payloads (Events, Performance Data, Incidents, CIs) with DSMSs and federate with ESMSs of external organisations.

IR-34 The UESB shall support protocol transformation.

IR-35 The UESB shall support the SNMP, HTTP, HTTPS, SFTP, FTP, JMS, POP3 and SMTP communications protocols.

IR-36 The UESB shall be configured to implement SNMP and SYSLOG receivers.

IR-37 The UESB shall support routing of messages based on their content.

IR-38 The UESB shall support the following Message Exchange Patterns: Asynchronous invocations, One Way, Publish-subscribe, Request-response.

IR-39 The UESB shall provide a framework for custom adapters (connectors).

IR-40 The UESB shall provide adapters for the following technologies: Web Services, Windows Communication Foundation, SQL server, ORACLE database, MSMQ.

IR-41 The UESB shall support UDDI as the Service Discovery protocol.

IR-42 The UESB shall support WSDL as the interface specification format.

IR-43 The UESB shall support SOAP and REST protocols.

IR-44 The UESB shall support WS-Addressing, WS-Metadata Exchange, WS-Discovery, and WS-Policy.

IR-45 The UESB shall support XSD schema validation.

IR-46 The UESB shall support XSLT and schema mapping to define transformations.

IR-47 The UESB shall support tracking and debugging of message flows in the development and in the operational phase.

IR-48 The UESB shall provide a development and orchestration graphical IDE.

IR-49 The UESB shall provide visual schema mapping integrated with metadata and semantic definitions in the IDE.

IR-50 The UESB shall provide message throttling.

IR-51 The UESB shall support WS-atomic transaction.

IR-52 The UESB shall support the following security mechanisms:

a. WS-Security

b. Content Encryption and Decryption

c. Content Based Authentication and Authorization

d. Digital Signatures

e. Non-Repudiation

IR-53 The UESB shall support the following management functions:

a. Logging

b. Message tracking

c. Exception Reporting and Alerting to external monitoring systems

d. Endpoint, process and performance monitoring.

IR-54 The UESB shall provide an Integrated Development Environment (IDE) to allow the Purchaser's staff to develop new message flows.

IR-55 The UESB shall provide following security features;

a. Authentication and authorization for inbound requests

b. Message Encryption

c. Digital Signatures

d. 3rd party Identity management integration

e. Support SSL

4.4.2.2 Service Level Management System (SLMS)

IR-56 The Contractor shall implement a Service Level Management System (SLMS) on the NS security domain by implementing the architecture description developed (Section 4.3.5).

IR-57 The SLMS shall be able to gather raw service performance data from the components or the management systems of the target services listed below, calculate KPIs and provide service level dashboards and reports.

IR-58 The SLMS shall be configurable for specific KPIs, SLOs, calendars and reporting periods per service and SLA.

IR-59 The SLMS shall be configured to support all the Service Level Management process activities described in ITIL v3.

IR-60 The SLMS shall be configured to provide separate SLA dashboards and reports to different customers ensuring data confidentiality between customers.

IR-61 The SLMS shall provide a web service API able to register/unregister services for monitoring and receive performance data from other systems.

IR-62 The SLMS shall provide a web service API able to send raw performance data and calculated KPI values to other systems.

IR-63 The Contractor shall collect process related data from Purchaser's Data Warehouse (See Section3.3) in order to monitor and report on the process related KPIs. Indicatively the estimated number of raw measurements per day for each service is given in Table 6.

Table 6 Performance Data Measurements per Day

Service	Raw measurements per day
NU VoIP	170000
NS VTC	900
NS Exchange	400
NS Portal	10000

IR-64 The SLMS shall enable the Purchaser to define a data retention policy matching evolving business requirements.

IR-65 The contractor shall configure the SLMS with the data retention policy given in Table 7.

Table 7 Performance Data Retention Period

Type of events	Estimated subset	Retention period (days)
raw performance data	100%	120
calculated KPI values	1%	1460

IR-66 The contractor shall develop more detailed requirements for the SLMS while developing SDS to be reviewed and validated by the Purchaser.

IR-67 The Contractor shall develop tests to demonstrate that the SLM System fulfils the final validated set of requirements.

4.4.2.2.1 NS E-mail Service

This service is managed by Core Enterprise Services Line. The pilot service level monitoring system shall monitor 5 Microsoft Exchange 2010 servers, serving over 11000 users in Lago Patria and SHAPE. These servers are monitored by Microsoft System Centre Operations Manager 2012 with standard Microsoft Exchange Management Pack.

IR-68 The Contractor shall implement an automated interface between UESB and DMS (Microsoft SCOM 2012) to collect event information for this service.

IR-69 The Contractor shall provide monitoring capabilities for the following KPIs that are currently monitored and reported:

a. Mean Time To Restore

b. Mean Time Between Failures

c. Availability (%)

d. Number of Incidents resolved in SLA

e. Number of incidents resolved out of SLA

f. Number of Major Incidents

g. Number of Incidents responded in SLA

h. Number of incidents responded out of SLA

i. Transaction Response Time

j. Delivery time for a sample email with a 5MB attachment

IR-70 The Contractor shall provide monitoring capabilities for the following KPIs in addition to above:

a. Performance Monitoring

i. time to transfer a message between Exchange servers

ii. the time for the user to access a message from his mailbox in the datacentre

iii. Client to client delivery time

iv. Queue delay

b. Capacity Monitoring:

i. real user message quantities,

ii. size distribution (body/attachment), time distribution, origin/destination distribution,

iii. tendency to keep chains,

iv. multiplication by number of addressees,

v. usage of hyperlinks versus direct attachments

vi. Number of e-mails received and number of emails sent (per user, per site)

4.4.2.2.2 NS Web Service

NS Web Service is managed by Core Enterprise Services Line. Core Enterprise Services has implemented NATO Information Portal (NIP) project to build the modern infrastructure for web

services. The pilot service level monitoring system shall be implemented to monitor NIP servers composed of 4 Microsoft Share point 2013 servers located in Mons. These servers are managed by System Centre Operations Manager 2012 (with standard Microsoft Share point Management Pack).

IR-71 The Contractor shall implement an automated interface between UESB and DMS (Microsoft SCOM 2012) to collect event information for this service.

IR-72 The Contractor shall provide monitoring capabilities for the following KPIs that are currently monitored and reported:

a. Availability(%)

b. Mean Time To Restore

c. Mean Time Between Failures

d. Number of Incidents resolved in SLA

e. Number of incidents resolved out of SLA

f. Number of Major Incidents

g. Number of Incidents responded in SLA

h. Number of incidents responded out of SLA

i. Transaction Response Time

j. WAN/LAN download rate

k. Tested pages sizes

l. Storage capacity

IR-73 The Contractor shall provide end-to-end monitoring for portal implementations serving users in Mons and Lago Patria. The Contractor shall implement end-to-end monitoring and reporting on following KPIs

a. Response time broken down to location, URL and page components.

4.4.2.2.3 NU Voice Service

The Voice Service is managed by Network Services and IT Infrastructure Service line. The pilot service level monitoring system shall monitor centralized PABX (Alcatel 4400) managed by Cisco Call Manager and Session Manager (v10.5) applications.

IR-74 The Contractor shall support the manual data dump into UESB to collect event information for this service.

IR-75 The Contractor shall provide monitoring capabilities for the following KPIs that are currently monitored and reported:

a. Availability (as call success rate)

b. Mean Time To Restore

c. Mean Time Between Failures

d. Number of Incidents resolved in SLA

e. Number of incidents resolved out of SLA

f. Number of Major Incidents

g. Number of Incidents responded in SLA

h. Number of incidents responded out of SLA

i. Ring Duration

j. Call Duration

k. Number of calls per month

4.4.2.2.4 NS Video Teleconference Service

The VTC service is managed by Network Services and IT Infrastructure Service line. VTC Service is available on all NATO locations based on MCUs, RMX Polycom Devices (approximately 250 endpoints) and software clients which are managed by ZyrOSS 2.3.11 software. The pilot service level monitoring system shall connect to ZyrOSS server in SHAPE Mons to generate reporting on all locations.

IR-76 The Contractor shall support the manual data dump via SFTP into UESB to collect performance information and syslog interface for event information for this service.

IR-77 The Contractor shall provide monitoring capabilities for the following KPIs that are currently monitored and reported:

a. Full VTC participation

b. VTC Presence from first to last connection (per participant)

c. Continuity factor

d. Number of Incidents resolved in SLA

e. Number of incidents resolved out of SLA

f. Number of Major Incidents

g. Number of Incidents responded in SLA

h. Number of incidents responded out of SLA

i. Number of VTC connections per Month

j. Number of served participants per month

k. Number of VTC hours

4.4.3 Test Plan

This section defines all the Test Activities for implementation deliverables.

IR-78 The contractor shall develop Test Plan including all implementation deliverables defined in Section 4.4 based on Test Cases as a system for conformance, performance, and acceptance.

IR-79 The Test Plan shall;

a. Define and explain how testing and acceptance will be conducted and the procedures used.

b. provide clear evidence that the SOW requirements are fully met.

c. Provide clear evidence that Test Cases developed by System owners are addressed by the tests.

d. Identify the format of a structured testing of the deliverable led by the Contractor – precondition, requirement, input and output.

e. Identify the documentation that will be provided as a result of each type test.

f. Define the set of test activities to verify each deliverable's compliance with the contractual requirements, to demonstrate its operational suitability.

IR-80 The Contractor shall provide draft version of the Test Plan in the first Project Checkpoint Meeting after Gate 2.

IR-81 The Purchaser will review the Test Plan and provide the testbed infrastructure for the Contractor to;

a. Setup the test configuration,

b. Execute the test cases

c. Report on test results.

IR-82 The Contractor shall coordinate with the Purchaser and conduct tests after the installation, configuration and data migration activities at the site.

IR-83 The Contractor shall complete testing for all implementation deliverables (Sections 4.4.1 and 4.4.2) before Gate 5. Any discrepancies will be identified and the schedule for completion will have to be agreed. A Purchaser representative will be present to witness and sign off the test results.

IR-84 The tests shall verify and confirm the proper installation of the software components and shall be demonstrated to the operational users of the implemented systems.

IR-85 Following receipt of the Test Report the Purchaser will assess and categorize the observations in the report as follows :

a. Class 1 discrepancies: the Purchaser will assign this category to those discrepancies or deviations that need to be cleared before PSA can be declared;

b. Class 2 discrepancies: the Purchaser will assign this category to those discrepancies or deviations that are not critical enough to hold PSA, but need to be cleared before declaring FSA.

IR-86 The tests shall be conducted at Purchaser's facilities in Mons(BEL) and The Hague(NLD).

4.4.4 Security Accreditation Plan (SAP)

IR-87 Security accreditation documentation will be mainly written by the Purchaser. However in order to produce this security documentation, the Contractor shall be requested to provide material which will be included in the documentation such as as-built drawings, updated diagrams or technical deliverable documentation.

IR-88 The Security Accreditation Plan shall be developed according to Guidelines for the Security Accreditation of Communication and Information Systems (CIS)[12].

IR-89 The NCI Security Accreditation Plan (SAP) shall outline the tasks, dates, documentation products and milestones, associated with the following activities for implementation deliverables (Section 4.4.2):

a. Production, review and acceptance of the CIS Description document;

b. Production, review and acceptance of the Security Risk Assessment (SRA) if needed. This will be decided during SDS development;

c. Production, review and acceptance and of the delta System Specific Security Requirements Specifications (dSSRS);

d. Production, review and acceptance and of the System Interconnection Specific Security Requirements (SISRS);

e. Production, review and acceptance of the delta Security Operating Procedures (dSecOPs) [11];

f. Delta Security Testing and Verification Plan(dSTVP)

g. Request for Change plan for COTS software. (Section 2.8)

IR-90 The SAP shall be developed together with each SDS for Implementation Deliverables (Section 4.4.2) will be subject of approval by the Security Accreditation Authority (SAA) in Gate 5 (Section 5.5)

IR-91 The Contractor shall support security testing as planned in STVP.

4.5 SMC Project Portfolio Management Service

The Contractor will be informed by the Purchaser about all relevant CIS Services and projects that should be analysed during the Initial Stakeholder meetings. The SMC Project Portfolio Manager assigned by the Contractor will be part of architecture development activities defined in section 4.3 and continue analysing ongoing and upcoming CIS projects to track SMC related requirements and gaps. SMC Project Portfolio Manager is responsible to inform SMC TA development team about issues to address for new capabilities and inform project managers or service owners about the alignment with the target state of Enterprise SMC capability.

PSR-1 The Contractor shall employ a SMC Project Portfolio Manager to work on-site with Purchaser's project team in NCI AGENCY, The Hague for 56 weeks.

PSR-2 The SMC Project Portfolio Manager shall execute the following tasks in coordination with combined Architecture Team to develop SMC Project Portfolio Report:

a. Track and analyse SMC related requirements of all planned and ongoing CIS especially for following projects:

   i. NATO New HQ Active Network Infrastructure

   ii. IT Modernization

   iii. NATO Communications Infrastructure

b. Prepare requirements impact assessment for all the projects within Bi-SC AIS Programme.(Table 8)

c. Identify risks and gaps in current and future SMC tool and process implementations.

d. Coordinate SMC TA knowledge dissemination between stakeholders and SMC TA team.

e. Manage SMC Technical requirements using Purchaser provided DOORS Software.(Section 3.2)

f. Execute Purchaser’s processes for Requirements Management.

g. Develop a transition roadmap from the SMC BA to the SMC TA.

PSR-3 The SMC Project Portfolio Manager shall identify service management related dependencies, exceptions that has an impact on SMC Capabilities and incompatibilities with the SMC Target Architecture. The contractor shall organize meetings to brief SMC TA team on weekly basis.

PSR-4 The SMC Project Portfolio Manager shall prepare SMC Project Portfolio Status reports on the progress and support Contractor team to conduct stakeholder update meetings for every quarter. The Purchaser shall review and accept the reports a week later than the submission.

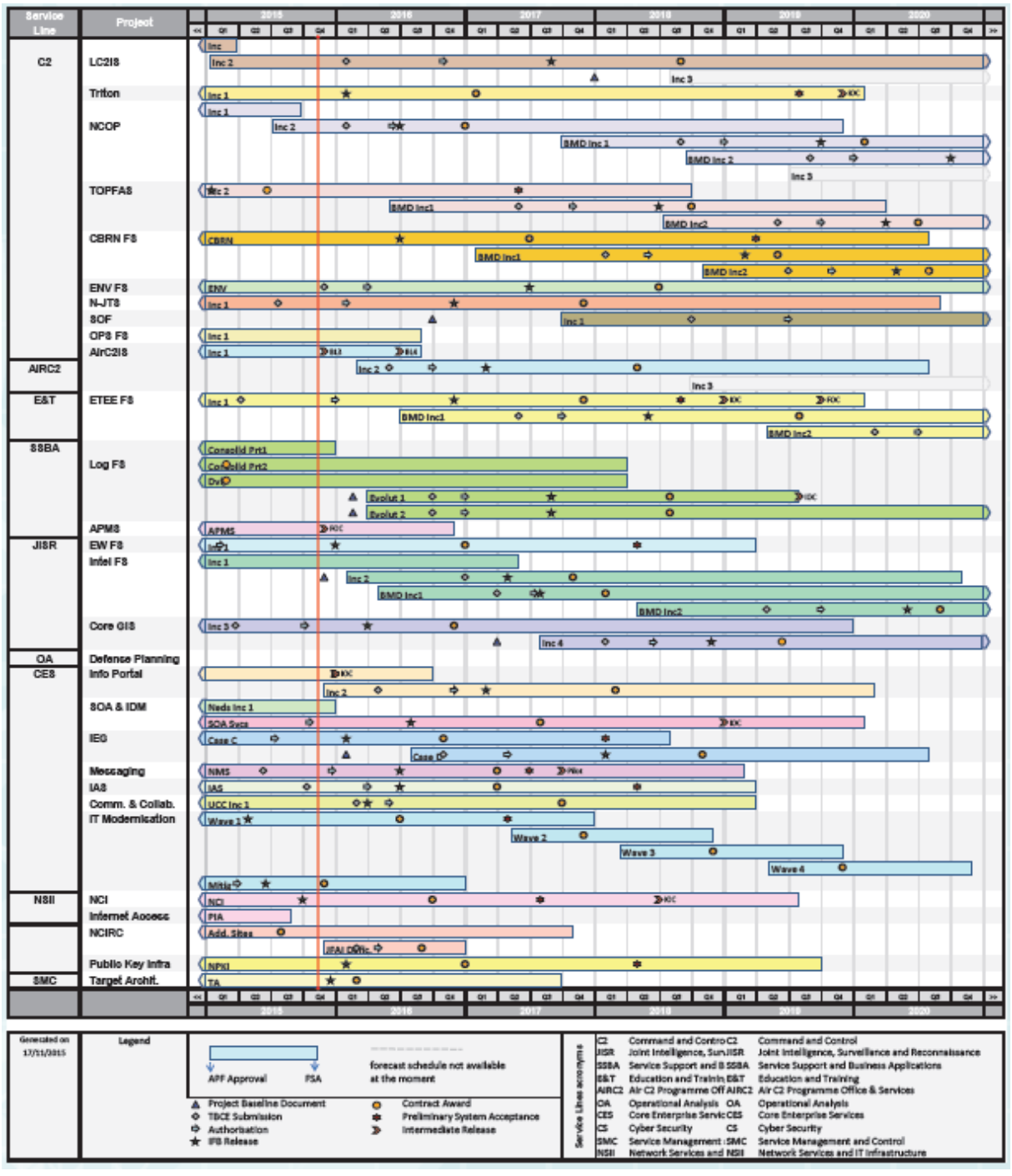

Table 8 Bi-SC AIS Project Roadmap Q4 2015

Section 5 Acceptance

TA-1 In the interest of assuring project quality, all Supplies and Services will culminate in a designated acceptance gate. The Purchaser will hold a Gate Acceptance Meeting at the time the gate is scheduled as defined in the Schedule of Supplies and Services (SSS).

TA-2 The objective of the gate is to formally collate all deliverables from the phase and ensure they are completed and accepted to the level previously agreed between the Contractor and the Purchaser.

TA-3 Each Gate will have entry criteria, and exit criteria.

TA-4 Entry Criteria will be defined in accordance with the deliverables of the associated Gate. Once all the entry criteria has been achieved, the contractor shall formally state their readiness for the Gate to the Purchaser Project Manager.

TA-5 When planning their activities, the Contractor shall assume the Purchaser requires no less than 5 working days to process Gate entry and exit criteria.

TA-6 The Contractor may wish to prearrange the gate, in the interests of expedience. Doing so may result in attempting a Gate review without fulfilling the Gate entry criteria, or the Purchaser or the Contractor failing to fully review all necessary deliverables or align schedules. Where gates are prearranged, any costs or delay incurred are solely the responsibility of the Contractor.

TA-7 Although at the discretion of the Contractor, submission of entry criteria can be made when the product is deemed complete and ready for assessment by the contractor.

TA-8 The exit criteria will be defined for each associated Gate. Exit criteria will consist of a subset of the deliverables being accepted by the Purchaser as meeting the quality as defined and agreed during the project kick-off phase.

TA-9 Until the Purchaser confirms acceptance of all the exit criteria deliverables, the gate will not be passed.

TA-10 Once all entry criteria have been accepted by the Purchaser, the Purchaser shall request a Gate Acceptance Meeting to confirm acceptance.

TA-11 The Contractor shall not progress to the next Gate of a delivery lifecycle until the previous Gate has been successfully passed as shown in Figure 12 Acceptance Gate Flow.

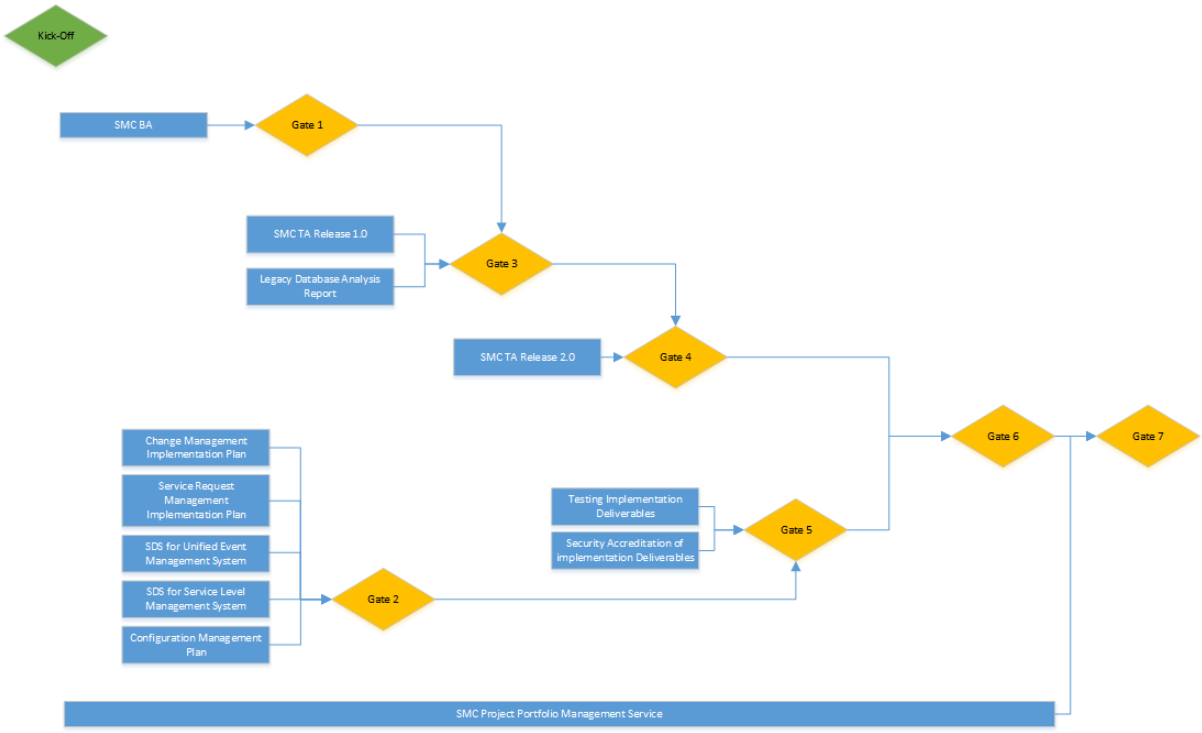

Figure 12 Acceptance Gate Flow

Figure 12 represents the major deliverables and the order of the acceptance gates. Entry and exit criteria for all gates are defined below.

5.1 Gate-1 :Baseline Architecture

TA-12 The Gate-1 Entry Criteria are:

a. SMC Baseline Architecture.

TA-13 The Gate-1 Exit Criteria are:

a. Completed and accepted SMC Baseline Architecture:

i. All “mandatory” architecture views completed in accordance with Section 4.3,

ii. All SMC BA stakeholder workshops are conducted.

5.2 Gate-2 : Design of Implementation Deliverables

TA-14 The Gate-2 Entry Criteria are:

a. System Design Specification for the Unified Event Management System.

b. System Design Specification for the Service Level Management System.

c. BMC Remedy Change Management Implementation Plan.

d. BMC Remedy Request Fulfilment Implementation Plan.

e. Configuration Management Plan.

f. Software Release Plan.

g. Delta System Specific Security Requirements.

TA-15 The Gate-2 Exit Criteria are:

a. Completed and accepted BMC Remedy Change Management Implementation Plan.

b. Completed and accepted BMC Remedy Request Fulfilment Implementation Plan.

c. Completed and accepted System Design Specification for the Unified Event Management System.

d. Completed and accepted System Design Specification for the Service Level Management System.

e. Completed and accepted Configuration Management Plan.

f. Completed and Accepted Software Release Plan.

g. Completed and Accepted Delta System Specific Security Requirements.

5.3 Gate-3: Target Architecture Release 1.0

TA-16 The Gate-3 Entry Criteria are:

a. Gate 1 has been passed.

b. SMC Target Architecture Release 1.0

c. Legacy Database(CAST+) Analysis report.

TA-17 The Gate-3 Exit Criteria are:

a. Completed and accepted Target Architecture Release 1.0,

i. Acceptance criteria will be set in the Project Kick-off meeting.

ii. All SMC TA stakeholder workshops(Release 1.0) are conducted.

b. Completed and accepted Legacy Database(CAST+) Analysis report.

5.4 Gate-4: Target Architecture Release 2.0

TA-18 The Gate-4 Entry Criteria are:

a. Gate 3 has been passed.

b. SMC Target Architecture Release 2.0.

TA-19 The Gate-4 Exit Criteria are:

a. Completed and accepted Target Architecture Release 2.0,

i. All mandatory Architecture Views defined in Table 3 for SMC TA Release 2.0 are completed.

ii. All SMC TA(Release 2.0) stakeholder workshops are conducted.

5.5 Gate-5: Test and Acceptance of Implementation Deliverables

TA-20 The Gate-5 Entry Criteria are:

a. Gate 2 has been passed.

b. All COTS documentation, licenses and installation media is delivered to the Purchaser.

c. RFC process is completed for all COTS software not in AFPL.(Section 2.8)

d. Final Test Plan is delivered to the Purchaser 4 weeks before Gate 5 milestone.

e. Final SAP is delivered to the Purchaser 4 weeks before Gate 5 milestone.

f. Maintenance Plan for each Software Release(See Section 6.4)

TA-21 The Gate-5 Exit Criteria are:

a. All tests including security tests are conducted successfully to the satisfaction of the Purchaser.

b. Completed and accepted Maintenance Plan for each Software Release(See Section 6.4).

c. Completed and accepted Test Reports.

5.6 Gate-6: Provisional System Acceptance

The below observation list will be the log of all discrepancies raised during the PSA meeting and are classified in two categories with a statement on the resolution required and resolution timeline.

- Class 1 discrepancy: The Purchaser will assign this category to those discrepancies or deviations that need to be cleared before PSA can be declared

- Class 2 discrepancies: The Purchaser will assign this category to those discrepancies or deviations that are not critical enough to declare PSA but need to be cleared prior to declaring Final System Acceptance (FSA).

TA-22 PSA will mark the provisional project's acceptance by thePurchaser. PSA shall demonstrate to the Purchaser's satisfaction that all project management, design, development and testing documentation has been delivered and accepted; that all system/operational/functional requirements have been met; that any outstanding test discrepancies from previous Tests have been resolved; and system performance levels attained.

TA-23 The Gate-6 Entry Criteria are:

a. Gate 4 and Gate 5 have been passed.

b. The inventory for the deliverables.

c. Certificate of Conformity (CoC) that conforms to the contractual standards.

d. O&M Manuals Delivered.

TA-24 The Gate-6 Exit Criteria are:

a. An inventory for the deliverables supplied duly verified and endorsed by the Purchaser.

b. The Purchasers acceptance of the Test Report confirming that no Class 1 discrepancies are outstanding.

c. Completed and Accepted O&M Manuals.

5.7 Gate-7: Final System Acceptance

TA-25 The Gate-7 Entry Criteria are:

a. Gate 6 has been passed.

b. In service Support Plan.

TA-26 Within 2 weeks after the Contractor has declared the System ready for Final Acceptance. The Contractor shall participate in the FSA Meeting, which shall be held at the Purchaser's Premises in either Brussels, The Hague, at the Purchaser's discretion. The Contractor shall demonstrate at the FSA Meeting to the Purchaser that:

a. All Contractual deliverables have been accepted.

b. Completed and Accepted In Service Support Plan.

c. All Class 2 discrepancies outstanding have been resolved to the entire satisfaction of the Purchaser.

Section 6 Integrated Logistics Support (ILS)

This section outlines the support requirements for all delivered Software under this contract.

6.1 Configuration Management (CM)

ILS-1 The Contractor shall develop and maintain one Configuration Management Plan in accordance with the ACMP-1.[15]

ILS-2 The Configuration Management Plan (CMP) shall define:

a. The Software Configuration Item (SCI) attributes,

b. The Types of SCI dependencies,

c. The Selection criteria for SCI's,

d. The process to identify the SCI's,

e. The process to control the SCI's (incl. Change Management),

f. The process to report on CI status and to verify completeness and correctness of the SCI's,

g. The planned schedule for Configuration Management related process activities,

h. The electronical format to store the SCI's into the Purchaser furnished Configuration Management Database.

i. The selection criteria to identify Software Configuration Items

ILS-3 The Contractor shall create and maintain three Configuration Baselines in accordance to the ACMP's:

a. Functional Baseline: Requirements documentation

b. Development Baseline: Architecture, Design, and Test documentation

c. Product Baseline: Software and Documentation.

ILS-4 The Contractor shall perform Configuration Item identification as defined in the CMP and in accordance with the ACMP-2.[16]

ILS-5 The Contractor shall perform constant Configuration Control on the Configuration Baselines and their CI's as defined in the CMP and in accordance with the ACMP-3.[17]

ILS-6 The Contractor shall frequently report on the Configuration Baseline and CI status as defined in the CMP and in accordance with the ACMP-4.[18]

ILS-7 The Contractor shall baseline the Configuration Baselines and its CIs at each Acceptance Gate.

ILS-8 The Contractor shall provide the Configuration Baselines and its CI's in electronical format upon Purchaser request.

6.2 Software Release Management

ILS-9 The Contractor shall develop and maintain one Software Release Plan (SRP).

ILS-10 The SRP shall define:

a. The Software Release attributes, e.g. Release Version, Classification, Release Type, and other,

b. The Software Release Unit and Package composition, e.g. Release Notes and other,

c. The process to release software to the Purchaser,

d. The process to deploy software on Purchaser furnished CIS infrastructure and/or platforms (incl. Accreditation testing),

e. The planned schedule for Software Release Units and Packages,

ILS-11 The Contractor shall deliver all Software CI's in accordance with the SRP.

ILS-12 The Contractor shall deploy all Software CI's in accordance with the SRP.

ILS-13 The Contractor shall align the SRP release schedule with the Purchaser release schedule of affected Purchaser furnished software CI's.

6.3 Software Support

6.3.1 Software Support during Implementation

6.3.1.1 Operational Support

ILS-14 The Contractor shall provide 1st, 2nd, and 3rd Level support for all Software CI's released and deployed to Purchaser operational environment during the Implementation period.

ILS-15 The Contractor furnished 1st Level Support shall provide a Point of Contact (POC) for the Purchaser to escalate any Software related issue to.

ILS-16 The Contractor furnished 1st Level Support shall be reachable over phone and email during normal NATO working hours (Reference location: NCIA Agency, The Hague). The telephone number shall be free of charge for the Purchaser.

ILS-17 The Contractor furnished 1st Level Support POC shall be located at in a NATO member country.

ILS-18 The Contractor furnished 1st Level Support records the Issue and try's to solve it immediately or escalates it to the Contractor furnished 2nd Level Support.

ILS-19 The Contractor furnished 2nd Level Support shall solve Problems that result from one or more Issues escalated from the Contractor furnished 1st level Support.

ILS-20 The Contractor shall analyse the Problem, identify the root cause and create a Problem Analysis Report.

ILS-21 Based on the Problem Analysis Report, the Contractor shall propose options to solve the problem and submit them to the Purchaser as Change Request (using the CMP process) for approval.

ILS-22 The Contractor furnished 3rd Level Support shall release and deploy the Purchaser approved Change Request in accordance with the SRP.

6.4 O&M Manuals

ILS-23 The Contractor shall create and maintain one (1) Operation and Maintenance (O&M) Manual for each Software Release Package.

ILS-24 The O&M Manual shall contain the following Standard Operating Procedures (SOP's), but is not limited to:

a. Installation, de-installation, setup & configuration, starting, stopping, updating, backup, restore, fault finding and fault isolation.

ILS-25 The O&M Manual shall include the following 1st Level Maintenance Procedures (no-specialised knowledge required), but is not limited to:

a. Basic system health status, readout of simple log files, system clean-up.

ILS-26 The O&M Manual shall include the following 2nd Level Maintenance Procedures (specialised knowledge required), but is not limited to:

a. Advanced system health status, readout of complex log files, installation of Patch/Bug-fix- Releases, change of configuration settings.

ILS-27 The O&M Manual shall include the following 3rd Level Maintenance Procedures (expert knowledge required), but is not limited to:

a. Installation and de-installation of Major Software Releases (e.g. COTS Maintenance Release), Change of core configuration settings, Tuning.

ILS-28 The O&M Manual shall include the following 4th Level Maintenance Procedures (Software COTS/Developer), but is not limited to:

a. Development and Release of COTS/custom developed maintenance releases in response to bugs or deficiencies,

b. Development and Release of Software upgrades as part of the software evolution (e.g. Release version upgrade from 2.1 to 2.2).

ILS-29 The Contractor shall create and maintain one (1) Maintenance Plan for each Software Release Package.

ILS-30 The Maintenance Plan shall define what Maintenance procedures shall be executed when, where, and by whom. For the duration of the Implementation, all procedures shall be performance by the Contractor.

6.4.1.1 In-Service Support Plan

ILS-31 The Contractor create and maintain one (1) In-Service Support Plan for all Software Packages delivered under this contract that defines the Operation, Maintenance and Support procedures, the required support tools and required skillsets to perform them.

ILS-32 The In-Service Support Plan shall contain procedures for IT-Continuity (e.g. Backup and Restore procedures in specific “stress” or “failover” scenarios).

ILS-33 The In-Service Support Plan shall reference to the O&M Manuals and COTS documentation as shall be structured as an oversight document.

6.4.2 Software Support after Implementation (Post-FSA)

ILS-34 Operational Support Levels of Operational Support will be performed by the Purchaser.

6.4.2.1 Support Plan

ILS-35 For the duration of the Warranty period, the Purchaser will perform all 1st, 2nd, and 3rd Level Maintenance procedures.

ILS-36 For the duration of the Warranty period the Contractor shall provide 4th Level Maintenance.

ILS-37 The Contractor shall develop and maintain a Support Plan for the Implementation Deliverables, covering the project phases and the in-service support for the

systems delivered by the project and aligned with the PIP in terms of milestones and deliverables.

ILS-38 The Support Plan is a standalone Product Lifecycle document that will survive the project post-FSA. As such, these documents are not to be submitted as part of the PIP, but will be part of the Technical Proposal.

6.4.2.2 Software Warranty

ILS-39 The Contractor shall provide Warranty for all Software Configuration Items of the Product Baseline procured under this Contract;

ILS-40 The period of Warranty for the Software Configuration Items shall be one (1) year, starting at the time of FSA;

ILS-41 The Contractor furnished Software Warranty Support use the 4th Level Maintenance Procedure to provide updates to the Product Baseline.

ILS-42 The Contractor furnished Software Warranty Support shall use the 3rd Level Support procedure to Release and Deploy updated software CI's into the Purchaser Operational environment.

ILS-43 If the Contractor becomes aware at any time before acceptance by the Purchaser that a defect exists in any Software CI, the Contractor shall coordinate with the Purchaser and promptly correct the defect.

ILS-44 The Contractor shall warrant that any developed Software CI(s) shall perform according to the Development Baseline (Design) and that any defects discovered shall be corrected;

ILS-45 The Contractor shall be responsible for updating and maintaining the Product Baseline throughout the Warranty period.

ILS-46 The Contractor shall be responsible for the provision of any alternative or superseding Software CI in case of "End of Life" or "End of Support".

ILS-47 During the warranty period the Contractor shall be responsible to release and deploy all COTS vendor released software upgrades using the 3rd level Support procedure;

ILS-48 The Contractor shall submit a bi-annual Warranty Report that documents the identified Warranty cases, affected CI's, taken activities, cost (if any) and schedule.

Appendix 1 Terminology

For terms not defined below the definitions given in ITIL v2011 apply.

ABL	The Allocated Baseline.
ADM	Architecture Development Method
AFPL	Approved Fielded Products List
AGS	Alliance Ground Surveillance
AirC2	Air Command and Control
AL	Architecture Lead
AWG	Architectural Working Group-NCIA
BA	Baseline Architecture
BMD	Ballistic Missile Defence
C3	Consultation, Command and Control
CAB	Change Advisory Board
CIS	Communications and Information Systems
CM	Configuration Management
CMP	Configuration Management Plan
CMS	Configuration Management System
COTS	Commercial of the Shelf
CP	Capability Package
CSU	Customer Support Unit
DCIS	Deployable CIS
DFD	Data Flow Diagrams
DNBL	Distributed Networked Battle Labs
DSMC	Domain level Service Management and Control
DSMS	Domain Service Management System
EDC	Effective Date of Contract
ELM	Element Manager
ERD	Entity Relationship Diagrams
ESB	Enterprise Service Bus
ESMC	Enterprise level Service Management and Control
ESMS	Enterprise Service Management System.
FSA	Final System Acceptance.
FMN	Federated Mission Network
ICT	Information and Communications Technology
IL	Implementation Lead
IT	Information Technology
NAF	NATO Architecture Framework
NAV	NATO All View
NCIRC	NATO Computer Incident response Capability
NCV	NATO Capability View
NNCS	NATO Network Control System
NOV	NATO Operational View
NPV	NATO Programme View
NPKI	NATO Public Key Infrastructure
NR	NATO Restricted
NS	NATO Secret
NSOV	NATO Service-Oriented View
NSV	NATO Systems View
NTV	NATO Technical View
NU	NATO Unclassified

OBL	The Operational Baseline.
PBL	The Product Baseline.
PCR	Project Checkpoint Review
PFE	Purchaser Furnished Equipment
PFI	Purchaser Furnished Information
PIP	Project Implementation Plan
PM	Project Manager
POC	Point of Contact
PSA	Provisional System Acceptance
PMS	Project Master Schedule
PWBS	Project Work Breakdown Structure
RACI	Responsibility Assignment Matrix
RAM	Reliability, Availability and Maintainability (requirements)
RFC	Request for Change
SAP	Security Accreditation Plan
SCI	Software Configuration Item
SHAPE	Supreme Headquarters Allied Powers Europe, NATO, Mons, Belgium
SECOPS	Security Operating Procedures
SIP	Service Interface Profile
SMC	Service Management and Control:
SOA	Service Oriented Architecture
SOP	Standard Operating Procedures
SOW	Statement of Work
SL	Service Line
SLM	Service Level Management
SLT	Service Level Target
SMC	Service Management and Control
SPPM	SMC Project Portfolio Manager
SISRS	System Interconnection Specific Requirements Specification
SRA	Security Risk Assessment
SRP	Software Release Plan
SSRS	System Security Requirements Specification
STVP	Security Testing and Verification Plan
TA	Target Architecture
TAP	Test and Acceptance Plan
UEM	Unified Event Management