

NATO UNCLASSIFIED

RFQ-CO-14308-UR6B
Book II Part IV

RFQ-CO-14308-UR6B

**BOOK II – PART IV
STATEMENT OF WORK (SOW)**



NATO Communications and Information Agency

**ENHANCEMENTS OF NATINAMDS
C2 COMMS JCHAT – UR6B**

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Section 1 INTRODUCTION

1.1 Background information

- 1.1.1 This project has been approved in support of NATINAMDS (NATO Integrated Air and Missile Defence System) C2 (Command and Control) Communications JChat and covers the procurement of items for UR6B (Urgent Requirement 6B) Project.

1.2 Requirements Overview

- 1.2.1 The scope of this Contract will be limited to the provision of networking components, workstations, printer/scanners and related ancillaries for further implementation by NCI Agency.
- 1.2.2 This contract shall provide:
- 1.2.2.1 Hardware and software to expand existing NGCS (NATO General Purpose Communications System) Services to additional users and locations, and
 - 1.2.2.2 Hardware and software to expand the existing JChat Services to additional users and locations.

Section 2 **APPLICABLE DOCUMENTS**

2.1 **Reference Documents**

2.1.1.1 Reference documents outlines procedures, standards related to NATO. They shall be used by the Contractor to support its activity, where applicable.

2.1.1.2 Throughout this document, a wide range of reference documents are indicated, such as NATO Standardisation Agreements (STANAG). As each such reference may exist in multiple versions, the following list indicates the applicable versions of all references used herein. Each reference is indicated by document number, edition, document title, date, and classification. The list is sorted alphabetically based on the reference number in order to ease cross-referencing with the reference indicators used herein.

2.1.1.3 Reference documents:

2.1.1.3.1 AAP-6 (2009) dated 28 April 2009, NATO Glossary of Terms and Definitions (English and French), 01 April 2008, NATO Unclassified

2.1.1.3.2 AAP-15 (2010) dated 25 January 2010, NATO Glossary of Abbreviations used in NATO Documents and Publications, Feb 08, No Classification

2.1.1.3.3 AC/322-D(2004)0021(INV), Guidance for Electronic Labelling of NATO Information, 16 Mar 04, NATO Unclassified

2.1.1.3.4 AC/322-D(2004)0022(INV), Guidance for Consistent Marking of NATO Information in C3 Systems, 16 Mar 04, NATO Unclassified

2.1.1.3.5 STANAG 6001, Language Proficiency Levels, Edition 3, 20 Feb 2009, NATO Unclassified

Section 3 **SCOPE OF WORK**

3.1 **The Scope of Work is addressed through these main requirements,**

- 1: Project Management
- 2: Equipment Delivery
- 3: Testing and Acceptance
- 4: Engineering Support
- 5: Integrated Logistics Support (ILS)

3.2 **Project Management overview:**

3.2.1 The Contractor shall carry out all the project management activities required to fulfil all the requirements of the contract. These requirements are covered in detail in Section 1 .

3.3 **Equipment Delivery overview:**

3.3.1 The Contractor shall deliver the assets that are required for the NATO UR6B Project, including, but not limited to:

- Alcatel 7705 CED (Customer Edge Device)
- CISCO routing and switching equipment
- User Workstations
- Printer/Scanners
- 19" Racks
- UPS (Uninterruptable Power Supply) Units
- Related cabling and ancillaries

3.3.2 The Contractor shall deliver the equipment to the installations locations as identified in the (SSS) Schedule of Supplies and Services.

3.3.3 If the Contractor is able to deliver the required equipment earlier than specified in the SSS, the Purchaser may accept earlier deliveries.

3.3.4 The equipment may also be delivered in partial deliveries to the installation locations. However, should this be the case, these delivery batches shall be co-ordinated with the Purchaser for approval.

3.3.5 If the products have licence restrictions and/or associations related to their actual operational location, the Contractor shall be responsible to provide the respective licences accordingly based on the project deployment locations listed in the SSS.

3.3.6 The requirements of the equipment to be delivered are covered in detail in Section 8 (Section 8.1).

3.4 **Testing and Acceptance overview:**

3.4.1 The Contractor shall test and validate all the delivered equipment prior to shipment to the installation locations in order to ensure that it is ready for being installed in the network.

3.4.2 The Contractor shall perform the tests based on the agreed Test and Acceptance Plan (see Section 1) under the observation of the Purchaser.

3.4.3 The Contractor shall submit the results of the tests in the form of Test Reports for the Purchaser's approval.

3.4.4 After Purchaser's approval of each Test Report, the corresponding equipment will be ready for shipment to the installation location.

3.4.5 Acceptance of the equipment will be done following receipt of the equipment at the installation location.

3.4.6 These requirements are covered in detail in Section 1 .

3.5 **ILS overview:**

3.5.1 The Contractor shall conduct all the required ILS activities to fulfil the Contract, including transportation and follow on support activities.

3.5.2 Transportation.

3.5.2.1 The Contractor shall deliver all the equipment to the installation locations identified in the SSS.

3.5.2.2 The Contractor shall comply with the transportation requirements defined in Section 5.5.

3.5.2.3 The Contractor shall coordinate the transfer of the equipment and movements of his staff with the Purchaser.

3.5.3 Follow On Support

3.5.3.1 After equipment acceptance, the Contractor shall provide standard level OEM support for a period of 24 months.

3.5.4 The requirements of the ILS to be provided are covered in detail in Section 1 .

3.6 **Implementation Process**

3.6.1 The following paragraphs describe the requirements for the Implementation Process according to the listed sequence of Project Activities.:

- 3.6.1.1 Initial Project Management activities, such as development of the PIP. Project Management activities to be present during all the duration of the Project.
- 3.6.1.2 Testing, validation and acceptance of the equipment, according to the delivery times of each batch of equipment.
- 3.6.1.3 Delivery of equipment to the installation locations.
- 3.6.1.4 24 months Warranty for the hardware and 12 months Warranty for the software and associated standard OEM support.

Section 4 PROJECT MANAGEMENT

4.1 The Purchaser's Project Management Team (PMT)

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

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

4.2 Contractor's Coordination Activities

4.2.1 The Contractor shall work in close-coordination with the Purchaser and engage with other NATO organisations and industrial entities that are involved in the project.

4.2.2 In general, the stakeholders are:

- NCIA, who is the Host Nation responsible for managing the contract. Therefore, also the Purchaser.
- ACO, who is the requirements holder.
- NATO users and administrators at NATO sites across the 28 NATO member nations.

4.2.3 Contractual direction will only come from NCIA.

4.3 Contractor's Organisation and Personnel

4.3.1 The Contractor shall propose an industrial organization and means to ensure to the Purchaser, the appropriate management and synchronization and the coherence of the tasks for which he is responsible in accordance with the requirements of the Contract.

4.3.2 The Contractor shall appoint a Project Manager (PM) to be responsible for the overall control and co-ordination of the Contractor's project activities. He shall be supported by a PMO with the necessary resources to perform and manage all efforts.

4.3.3 The Contractor's PM shall liaise with the Project Manager appointed by the Purchaser.

4.3.4 The NCIA PM, who will act as the Purchaser's representative, will be the primary interface between the Contractor and NCIA from the Effective Date of Contract (EDC).

- 4.3.5 The Contractor shall consult regularly with the Purchaser to ensure that practices are compatible, meet their joint requirements and are tailored to meet the requirements of the project.
- 4.3.6 The Contractor shall also provide all necessary manpower and resources to conduct and support the management and administration of operations in order to meet the objectives of the project, including taking all reasonable steps to ensure continuity of personnel assigned to work on this project.
- 4.3.7 The personnel identified below shall be considered as Key Personnel in accordance with the Special Provisions of this Contract. Because of their role in coordinating with the Purchaser, all Key Personnel must be fluent in English, the working language of NATO.
- 4.3.8 **Project Manager**
 - 4.3.8.1 The Contractor shall appoint a Project Manager to be responsible for the overall control and co-ordination of the Contractor’s project activities. The Contractor Project manager shall liaise with the Project Manager (PM) appointed by the Purchaser. The Contractor shall provide a Curriculum Vitae (CV) or résumé reflecting the Project Manager’s experience that meets the following requirements:

Serial	Requirement
1	A University Degree in Information Technology, Computer Science or other relevant Scientific subject.
2	At least 4 years of experience as a Project Manager for an effort of similar scope, duration, complexity and cost, including the application of a formal project management methodology such as PRINCE2 or PMI’s PMP
3	Experience with implementation of secure infrastructures for defense, government or financial organizations.
4	Working experience in a multinational environment or working experience with a multinational company or military organization on similar projects

- 4.3.9 **Test Director**
 - 4.3.9.1 The Contractor shall designate a Test Director for all test activities conducted under this Contract.
 - 4.3.9.2 The Test Director shall:
 - 4.3.9.2.1 Direct test planning, design and tools selection;
 - 4.3.9.2.2 Establish guidelines for test procedures and reports;

- 4.3.9.2.3 Co-ordinate with the Purchaser on test support requirements; and
 - 4.3.9.2.4 Manage the Contractor test resources.
 - 4.3.9.3 The Test Director shall possess a Bachelor's degree in telecommunications engineering, computer science or related degree, and shall have at least five years' experience in the design and execution of information systems tests.
- 4.3.10 Quality Assurance Manager
- 4.3.10.1 The Contractor shall designate a qualified individual to serve as the Quality Assurance Manager for activities under this Contract.
 - 4.3.10.2 The Quality Assurance Manager shall report to a separate manager within the Contractor's organization at a level equivalent to or higher than the Project Manager.
 - 4.3.10.3 The Quality Assurance Manager shall have knowledge and experience in key Integrated Logistic Support (ILS) subject matter areas.

4.4 **Project Implementation Plan (PIP)**

4.4.1 The Contractor shall submit a PIP that describes how the Contractor will implement project work packages/contract administration, including details of the controls that shall be applied to supervise any Sub-Contractor performance. The plan shall also define the details of liaison amongst the Purchaser, the Contractor and any Sub-Contractors. After approval by the Purchaser, any new version of the PIP shall constitute the unique Contractor's reference for the project implementation.

4.4.2 When the Purchaser is satisfied that all comments have been satisfactorily incorporated he will approve its issue. The approved PIP does not constitute Purchaser endorsement of the Contractor's Plan, but signifies that the Purchaser considers the Plan to be a logical and satisfactory approach to the management of the required activities, based upon the information provided. In the case of any conflict, ambiguity, or omission the requirements of the Contract take precedence over the PIP.

4.4.3 The approved PIP shall be the official document against which the Contractor is expected to conduct the performance of the Contract and shall be used to measure contract progress against the delivery requirements of the Contract SSS.

4.4.4 The Contractor shall update the PIP and the individual plans contained within it as necessary during the life of the Contract. In particular, PIP updates shall be provided whenever any technical, management, or contractual change is foreseen or becomes necessary as a result of any changes in the project implementation or supplemental agreement made to the contract. Where updates are performed, the Contractor shall submit a revised version of the PIP to the Purchaser, clearly identifying all proposed changes within the text and providing a summary of those changes; review and approval of PIP amendments shall follow the procedures detailed in 4.4.12.

4.4.5 The Contractor shall provide an Initial PIP for discussion during the Kick-Off meeting, which will be the basis for the follow-on PIP.

4.4.6 The PIP shall consider all project implementation aspects, which include management provisions, facilities, schedules, personnel assignments, external relationships and project control. The PIP shall be in sufficient detail to allow the Purchaser to assess the Contractor's plans and capabilities in implementing the entire project in conformance with the requirements specified. The PIP to be prepared by the Contractor shall include as a minimum the following chapters:

Chapter 1: Introduction

Chapter 2: Management and Programme Control

Chapter 3: Manpower assurance

Chapter 4: Quality Assurance Plan (QAP)

Chapter 5: Test and Acceptance Plan (TAP)

Following Paragraphs provides description of the required PIP content by chapter:

4.4.7 PIP Chapter 1 – Introduction

4.4.7.1 In Chapter 1 of the PIP the Contractor shall provide a project overview which describes the goals of the project and the broad details of how the project will be conducted. Chapter 1 shall be in the form of an Executive Summary, which describes highlights from each Chapter.

4.4.8 PIP Chapter 2: Management and Programme Control

The management part of the PIP shall define in detail how the Contractor intends to manage this project from Effective Date of Contract (EDC) to completion of the services. This chapter shall include, but may not be limited to, the following aspects:

4.4.8.1 A description of the management structure of the Contractor's Project Team, indicating its relationships within the company structure.

- 4.4.8.2 A list of personnel assigned to the Contractor's Project Team Organisation and the related information appropriate to this project (i.e. education, experience to include previous experience in NATO or national military projects, security clearance, structured methodology roles).
- 4.4.8.3 Specifics of any third party involvement giving description, details and relationship to the Contractor. This Chapter shall also provide details of proposed sub-contracting, if any.
- 4.4.8.4 The plan shall describe how the Contractor will implement project / contract administration, including details of the controls that will be applied to supervise Sub-Contractor performance. The plan shall also specify the details of proposed liaison with the Purchaser and Sub-Contractors, with provision for regular progress review meetings and periodic progress and performance reporting. Full details of project administration structure shall be included.
- 4.4.8.5 A Communications Plan that shall explain to communications paths and POCs for each of the relevant aspects of the Project.
- 4.4.8.6 A Project Work Breakdown Structure (PWBS) containing all the work packages emanating from the requirements of the Contract.
- 4.4.8.7 **Project Master Schedule:** The Contractor shall maintain a Project Master Schedule (PMS) that contains all Contract events and milestones, including Contract-related Purchaser activities and events (e.g., Purchaser reviews, provision of specific Purchaser-furnished items). The PMS shall correlate with the PWBS and also be traceable to performance and delivery requirements of this SOW.
- 4.4.8.7.1 The PMS shall depict the sequence, duration, and relationship among PWBS, Task orders, work packages and work items, including internal QA events.
- 4.4.8.7.2 The PMS shall identify the start and finish dates, duration, predecessors, successors, and resource requirements for each work item.
- 4.4.8.7.3 The PMS shall take into consideration NATO's official holidays and potentially limited availability of the NATO staff during operations and/or exercises.
- 4.4.8.7.4 The PMS shall include the delivery dates for all management products (e.g., project plans, Project Highlight Reports), including at least the initial version and the final one.
- 4.4.8.7.5 The PMS shall include activity network, activity Gantt, milestone, and critical path views of the project schedule.

- 4.4.8.7.6 The PMS shall be provided in Microsoft Project Format.
- 4.4.8.8 **Risk Management:** The Contractor shall establish a risk management program and perform risk management throughout the period of performance of this Contract. As part of this, the Contractor shall establish and maintain a Risk Log for the project.
 - 4.4.8.8.1 In the Risk Log, the Contractor shall identify any management, technical, schedule, and cost risks.
 - 4.4.8.8.2 The Contractor shall rate each risk as High, Medium, or Low, based on its probability of occurrence and its impact on cost, schedule, and quality.
 - 4.4.8.8.3 The Contractor shall identify for each risk the measures being taken to mitigate any risk rated as high on any factor.
 - 4.4.8.8.4 The Contractor shall make the Risk Log available on the Project Website. 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.
 - 4.4.8.8.5 The Contractor shall update and brief the Risk Log at all Project Checkpoint Reviews and Design Reviews.
- 4.4.9 PIP Chapter 3: Manpower Assurance
 - 4.4.9.1 Chapter three of the PIP shall outline the approach taken to ensure that the Contractor personnel will be available to meet the performance and delivery requirements.
- 4.4.10 PIP: Chapter 4: Quality Assurance Plan
 - 4.4.10.1 For this COTS equipment, the Quality Assurance Plan shall describe and outline the Contractor's Quality Assurance Organization and Quality Assurance/Quality Control System and shall meet the requirements defined in Section 6 of this SOW.
- 4.4.11 PIP: Chapter 5: Test and Acceptance Plan
 - 4.4.11.1 The Contractor shall provide and update the Test and Acceptance Plan (TAP) covering all tests activities in this Contract, outlining the tests and supporting tasks to meet the requirements of this SOW.
 - 4.4.11.2 The Test and Acceptance Plan shall include a Requirements Traceability Matrix.
 - 4.4.11.3 The TAP shall identify the Contractor's proposed test organization to address all the requirements of SOW and its relationship with the Contractor's Project Management Office (PMO) and QA functions.

- 4.4.11.4 The TAP shall provide a flow diagram that shows the overall sequence of tests to be executed at CSSC, and Contractor equipment and personnel involved in each test, and the relationship of test events to project milestones.
- 4.4.11.5 The TAP shall identify the support to be provided by the Purchaser in terms of manpower, services and material, including Purchaser witnessing and approval activities.
- 4.4.11.6 The TAP shall identify the entry and exit criteria proposed by the Contractor for each test session.
- 4.4.11.7 The TAP shall identify the test documentation associated with each test, including the scenario, procedures, test data, test results, and test reports.
- 4.4.12 PIP Review and Acceptance
- 4.4.12.1 The Purchaser will review the Initial PIP in detail for a period of one (1) week after submission. During this review period the Contractor shall make available to the Purchaser technical and contractual support as necessary to enable the Purchaser to make a sound assessment of the plan. At the end of this period the Purchaser will provide the Contractor with a detailed appraisal of the plan.
- 4.4.12.2 Within one (1) week of receiving the Purchaser's appraisal of the PIP the Contractor shall incorporate all the comments required by the Purchaser. The Purchaser, provided that all comments are incorporated, will then formally accept the PIP.
- 4.4.12.3 The Purchaser reserves the right to require the Contractor to make further changes to the plan, to correct any errors detected during the implementation or to reflect any technical or contractual changes necessary as a result of any supplemental agreement made to the contract.
- 4.4.12.4 The PIP, and all subsequent modifications, additions, expansions and re-issues related to the PIP shall be submitted to the Purchaser by email as well as in the Project Website, with one version in editable native format, accompanied by a digitally signed pdf version.
- 4.4.12.5 The approval of the PIP by the Purchaser signifies that the Purchaser agrees to the Contractor's approach in meeting the requirements. This approval in no way relieves the Contractor from his responsibilities to achieve the contractual and technical requirements of this contract.
- 4.4.12.6 The approved final PIP shall be updated by the Contractor as appropriate throughout the duration of the contract. Revisions of the PIP shall be subject to mutual agreement.

- 4.5 **Project Review Meetings**
- 4.5.1 The meetings and phone calls shall be conducted in English.
- 4.5.2 The Contractor shall arrange monthly review meetings with the Purchaser. The location of the meetings should ordinarily be at NCIA MONS Belgium, other NATO locations or the Contractor's premises may be used if Purchaser and Contractor both consent. Exact dates of the meetings will be established by mutual agreement of the Parties.
- 4.5.3 The Purchaser PM will chair the meetings and the Contractor shall attend and provide the meeting secretary.
- 4.5.4 The Contractor shall submit a Project Highlight Report (PHR), to be received by the Purchaser NLT (no later than) five (5) working days prior to each meeting, which shall include a thorough discussion of the following points:
- The activities performed and work completed during the preceding period, including major milestones achieved as applicable;
 - Answers to questions addressed by the Purchaser between two meetings;
 - Status of the equipment (equipment order, in Contractor's office, packing, deploy and test);
 - Status of documentation (see Section 9);
 - Updated risk log, as an appendix to the PHR;
 - Updated issue log, as an appendix to the PHR;
 - Updated Action Items List (AIL).
- 4.5.5 Minutes of meetings (Project Progress Meeting Minutes) shall be written by the Contractor and delivered to the Purchaser NLT five (5) working days after the meeting. Once the Minutes are accepted by both Parties' respective Project Managers, the Contractor shall provide the final version.
- 4.5.6 The minutes shall document the topics, problems, discussions and all decisions made and include copies of the current Action Item List (AIL), Project Schedule and Risk analysis/assessment.
- 4.5.7 These minutes shall not be regarded by the Parties as a mechanism to change the terms, conditions or specifications of the Contract nor as a vehicle to alter the design or configuration of equipment or systems. Any such changes shall only be made by Contract amendment or by authorized mechanisms as set forth in this Contract.
- 4.5.8 A kick-off or a progress meeting will not last more than one day.
- 4.5.9 Ad-hoc meetings:

- 4.5.9.1 Ad Hoc Working Meetings may be organized by mutual agreement on request of either the Purchaser or the Contractor to resolve problems, clarify project requirements or review progress. These meetings will generally be held at the Purchaser's premises.
- 4.5.9.2 Minutes of the Ad Hoc Working Meetings shall be written by the Contractor and issued to the Purchaser NLT 5 working days after the meeting. Comments received will be taken into account and incorporated by the Contractor. Once the Minutes are accepted by both Parties' respective Project Managers, the Contractor shall provide the final version.

Section 5 INTEGRATED LOGISTICS SUPPORT

5.1 General

This section outlines the supportability requirements of the project. It addresses the various Integrated Logistic Support (ILS) subjects like transportation, supply, and documentation.

5.1.1 The Contractor shall develop and maintain the Integrated Logistics Support Plan (ILSP) that encapsulates all support element plans and concepts as defined below.

5.1.2 The ILSP shall contain an introduction that explains the scope and purpose of the delivered capability. It shall include a description of the capability Product Base Line (PBL) and it shall contain references and definitions as applicable.

5.1.3 The Contractor shall develop an initial ILSP to be included in the initial PIP in order to give a preliminary overview of how the ILS requirement will be addressed.

5.1.4 The Purchaser ILS PoC for all requests related to ILS is:

NCI Agency
Attn.: Mr. Chris Lucas
ILS Officer at NCIA/ACQ/ILS
Avenue du Bourget 140
B-1110 Brussels
Belgium
Tel: +32 (0)2 707 8310
Fax: +32 (0)2 707 8770
E-mail: Chris.Lucas@ncia.nato.int

5.1.5 Maintenance and support services requirements:

5.1.5.1 The Contractor shall provide full warranty for two (2) years for the hardware and one (1) year for the software following equipment acceptance.

5.1.5.2 The Contractor shall provide standard level OEM support (the one included with the equipment by default) for a period of two (2) years for the hardware and one (1) year for the software.

5.1.5.3 The Contractor shall provide a POC and a procedure for dealing with related warranty and OEM support issues.

5.2 Warranty

- 5.2.1 The period of warranty for the equipment delivered under this project shall start after Equipment Acceptance (see Section 1). The warranty shall be the standard warranty with a minimum of two (2) years for the hardware and one (1) year for the software.
- 5.2.2 The Contractor shall provide exact warranty conditions for each type of equipment.
- 5.2.3 The Contractor shall be solely responsible for all costs to implement and administer the required warranty throughout the entire respective warranty term(s).
- 5.2.4 The transportation of unserviceable items from NCIA to the Contractor for repair shall be the responsibility of the Purchaser. Transportation of repaired/replaced items shall be the responsibility of the Contractor.
- 5.2.5 The Contractor shall repair/replace all items received as per their internal procedures with the highest priority allocated and shall be responsible to return the item to the sender through express delivery within 15 working days of receipt.
- 5.2.6 The Contractor shall not be responsible for the correction of defects in Purchaser Furnished Equipment or Property.
- 5.2.7 **The Contractor shall be aware that, due to NATO security constraints all failed hard disks/drives etc. can only be repaired or replaced on-site and cannot be removed and/or returned to the Contractor for repair. Defect magnetic and electronic media storage devices/ (i.e. Compact Discs (CD), Disk Array, diskettes, hard drives, USB memory devices) will therefore be destroyed on-site by the Purchaser. Defect magnetic and electronic media etc. shall therefore be replaced by the Original Equipment Manufacturer at no extra cost to the Purchaser.**
- 5.2.8 If the Contractor becomes aware at any time before acceptance by the Purchaser that a defect exists in any supplies, the Contractor shall promptly correct the defect.

5.3 Initial Spare Parts

- 5.3.1 The Contractor shall provide a detailed and priced Recommended Spare Parts List (RSPL) that shall reflect all individual spare part components for the equipment to be delivered. I will be provided 8 weeks after EDC.
- 5.3.2 The RSPL shall as a minimum include the following data:
- a. Item sequence number;
 - b. Detailed item description;

- c. True manufacturer's part number;
- d. True manufacturer's identification code (Cage Code) or name;
- e. Mean Time Between Failures (when validated data is available);
- f. Next higher assembly;
- g. Unit price.

5.4 Supply support

5.4.1 System Inventory/ Material Data Sheet (MDS)

5.4.1.1 The Contractor shall provide the Purchaser's ILS PoC with a Site Specific Material Data Sheet (MDS), in electronic format, ten (10) working days before the shipment of the respective equipment to the installation locations. The MDS, as a minimum, shall include the data elements cited in paragraph 5.4.1.2 with an "M" mandatory below, if applicable. The MDS, amended as necessary, shall be used by the Purchaser for acceptance purposes and to create data element entries in the NATO Accounting system, ahead of delivery of the Final System Inventory.

5.4.1.2 The Contractor shall provide the Purchaser's ILS PoC with a Final System Inventory, which shall be based on and be consistent with the MDS, ten (10) working days before the last Acceptance Tests. The Final System Inventory shall include all data elements listed below. The Final System Inventory shall be provided as a hard copy as well as on electronic media in Microsoft Excel or Access database format. For information purposes, the minimum inventory/equipment data elements required are as follows:

Field	Description	Mandatory
CLIN	Contract Line Item Number (number-10 digits maximum). Sequence number assigned to a particular line item in a given contract. The combination CLIN-Contract No. shall always be unique.	M
NSN	NATO Stock Number (number-13 digits) (if available). Identifies an item codified by one of the NATO countries' National Codification Bureaus. It shall always be linked to at least one part number with the corresponding manufacturer code. It is recommended that the Contractor system integrator requests codification from the National Codification Bureau of the original manufacturer's country. If NSN is known prior to system delivery it shall be added in this field.	

Field	Description	Mandatory
Nomenclature	Short Item Description (text- 35 digits). Should always start with the main item name followed if possible by a technical specification, followed by the next higher assembly names in hierarchical order, separated by commas. E.g. for a coax connector of a television cable the nomenclature should read: CONNECTOR, COAX, CABLE, TELEVISION.	M
EQRE (XB/ND)	Code (text-2 digits). Defines whether an item is repairable (ND) or not (Expendable) (XB) from a technical point of view.	M
True Manufacturer Part Number	True Manufacturer P/N (text-32 digits). Part Number given to this item by the original manufacturer.	M
True Manufacturer Cage Code (or complete name and address)	True Manufacturer Code (text-5 digits). Code of the Company that has manufactured this item. This is an internationally recognized 5-digit code which is unique to that company. It corresponds to the "cage code" in the USA. Manufacturer Codes and Cage Codes are obtainable from the national governmental authorities or, if it already exists, from the "NATO Master Cross-Reference List" (NMCRL) obtainable from NSPA. In case the code cannot be obtained, it will be sufficient to enter the complete name and address information of the true manufacturer.	M
Vendor/Contractor Cage Code (or complete name and address)	Vendor (Contractor) (text-5 digits). Company which sells the item or the complete system to which this item belongs. The vendor is the company with which the contract is placed but is not necessarily the true manufacturer of the item. If the vendor company has also designed and integrated the complete system it is also known as Original Equipment Manufacturer (OEM). The company code is an internationally recognized 5-digit code which is unique to that company. It corresponds to the "cage code" in the USA. Manufacturer Codes and Cage Codes are obtainable from the national governmental authorities or, if it already exists, from the "NATO Master Cross-Reference List" (NMCRL) obtainable from NSPA. In case the code cannot be obtained, it will be sufficient to enter the complete name and address information.	M
Vendor/Contractor Part Number	Vendor (Contractor) P/N (text-32 digits). Part Number given to this item by the company which sells the item or the complete system to which this item belongs. The vendor is the company with which the contract is placed but is not necessarily the true manufacturer of the item.	M
Qty ordered	Item Quantity (number-5 digits). Shows the quantity of this item ordered as individual item in this contract, i.e. if it is not delivered built-in in another unit. In case the item is not ordered as individual item or as spare unit but is built-in in another assembly, enter "0" (zero) in this field and complete fields: "Part Number of next higher assembly" and "Qty in next higher assembly". Serialized items shall only have a quantity of 1.	M
Order Unit	Order Unit (text-2 digits). Unit under which the item is sold, e.g. each, set, meter, etc.	M

Field	Description	Mandatory
Serialized Item Tag	Serialized Items Tag (text-1 digit). Add a "Y" if the item carries a serial number independently whether serial numbers is already known or not. If known, complete column "Serial Number".	M
Serial Number	Serial Number. If Serialized Item Tag is "Y" (yes) then add serial number here. (1 serial number per line). If system is already installed, then the Contractor shall indicate here the serial numbers installed at user site. For items to be delivered to depots the Contractor may not know the serial number in advance, in that case it will be completed by the receiving site.	M
Serial Number Software Revision Level	Software Revision Level (text- 30 digits but can be expanded as necessary) If item carries a serial number and field "serial number" is completed, add SW revision level / version here if appropriate.	
Serial Number Hardware Revision Level	Hardware Revision Level (text- 30 digits but can be expanded as necessary) If item carries a serial number and field "serial number" is completed, add HW revision level / version here if appropriate.	
Other Serial Number attributes	Other Serial Number Attributes (text-to be defined). This field will be used and defined on a case by case basis to be decided by NCIA System Manager, NCIA and the Contractor for other attributes which might be required for a particular system.	
Subject to Property Accounting	ORACLE-CNAFS (text-1 digit). NCI Agency will decide whether or not item is subject to property accounting and is to appear on the customer balance lists. This field will be completed Y or N by NCI Agency.	
Currency	Currency (text-3 digits). International 3-digit code (ISO) representing the currency in which the item purchase price (or the estimated value) is expressed.	M
Price	Item Price (number-11 digits). Unit price with 2 decimals.	M
Warranty Expiration Date	Warranty Expiration Date (date: DD/MM/YY). Shows the date on which the warranty of this item expires, which is usually N days after delivery of the item. If delivery is scheduled for a certain date, warranty expiration date = delivery date + warranty period in days.	M
Receiving / Inspection Depot	Receiving / Inspection Depot (TXT-2 digits). Information will be provided to Contractor by the Purchaser's ILS Officer. This is the depot to where the vendor ships the material. Normally this depot will receive, inspect and put the material in stock against Dues-In to be created in accordance with Qty in column "Qty Ordered". In case of a deviation from this rule, the Purchaser will inform the Contractor of the correct final Depot and through which depot the items shall have to transit.	
Issue to customer	Customer Code (text-4 digits - to be completed by NCI Agency). Code representing the customer to which the item(s) shall be shipped by the receiving/ inspecting depot.	
Extended Line Item Description	Extended Line Item Description (text-no limit). Any additional information concerning this item shall be entered here, e.g. technical specifications, configuration, reference to technical drawings or manuals etc.	

Field	Description	Mandatory
Part Number of next higher assembly	Part-Number of Next Higher Assembly (text-32 digits) If item is built-in another assembly, indicate part number of that assembly here.	
Qty in next higher assembly	Quantity in Next Higher Assembly (number-3 digits max). This field shows the built-in quantity of the item in the next higher assembly. This information shall be provided for configuration control purposes.	
Qty installed at Operating Unit (Customer Site)	Quantity installed. This field is only applicable when the delivery is direct to an operating unit (customer site). However in that case it is mandatory. For non-serialized items it shows total quantity installed. For serialized items quantity shall only be one per serial number. Use a new line for each serial number.	

5.5 Management and control of logistics movement

5.5.1 Transportation

5.5.1.1 The Contractor shall develop a Transportation Plan (also to be included in the ILSP and as part of the PMS), which shall describe all planned (partial) shipments, locations, points of contact, and transportation stages.

5.5.1.2 All equipment and documentation covered under this Contract shall be transported by the Contractor to the installation locations at the expense of the Contractor. The deliveries shall be made to the detailed installation location addresses to be provided by the Purchaser prior to the shipments.

5.5.1.3 The Contractor shall be responsible for insurance of the shipments during transportation to the installation locations.

5.5.1.4 The Purchaser will not be liable for any storage, damage, or charges involved in the transportation of the supplies.

5.5.2 Preservation and Packaging

5.5.2.1 The Contractor shall, for the purpose of transportation, package, crate, or otherwise prepare items in accordance with the best commercial practices for the types of supplies involved, giving due consideration to shipping and other hazards associated with the transportation of consignments overseas.

5.5.2.2 A detailed description of packaging to be used shall be provided by the Contractor.

5.5.2.3 Any special packaging materials required for the shipment of items shall be provided by the Contractor.

5.5.3 Package Marking

- 5.5.1 The packages, palettes and/ or containers in which supplies are transported shall, in addition to normal mercantile marking, show on a separate nameplate the project name, contract number and shipping address.
- 5.5.1.1 All hardware packaging supplied shall be marked as applicable with the true manufacturer's part number, serial number and revision level as identified in the relevant technical documentation.
- 5.5.2 Packing Lists
- 5.5.2.1 The Contractor shall ensure that packing lists are provided in such a way as to permit easy identification of the items to be delivered.
- 5.5.2.2 Packing lists shall accompany each shipment, which shall as a minimum include the following:
- The NCIA contract number
 - The NATO Project Title
 - Site Name
 - Item description
 - Item part number and serial number
 - CLIN number as per the SSS
 - Name and address of the Contractor/ Sender, the Purchaser and Consignor
 - Detailed weight and dimensions per box/pallet/container
 - Box number and number of boxes in the consignment
- 5.5.2.1 Two copies of the packing lists shall be fastened in a sealed weatherproof envelope on the outside of each box, palette and/ or container. One copy shall also be put inside.
- 5.5.3 Notice of Shipment
- 5.5.3.1 The Contractor shall provide the Purchaser with a notice of shipment which as a minimum shall include the following information and shall be received at the Purchaser not later than 5 days before scheduled departure:
- Shipment Date
 - The NCIA contract number
 - Site name
 - Item description
 - Item part number
 - CLIN number as per the SSS
 - Name and address of the Contractor, the Purchaser and Consignor
 - Weight and dimensions per box/pallet/container
 - Number of 302 Forms used
- 5.5.4 Customs Documentation

- 5.5.4.1 The Contractor shall ensure the timely request of Customs Form 302 through the Purchaser's ILS PoC fifteen (15) working days before a shipment. A Customs Form 302 is required for duty free import/export of supplies. Following receipt of the request by the Purchaser's ILS PoC, normally a maximum of three working days is required for the issue of the form. This form is not required for movements within the European Union.
- 5.5.4.2 These forms have to be originals and cannot therefore be faxed but have to be mailed or sent by mail/express courier. In case that an express courier has to be used to ensure that the form is available in time before shipment, all associated costs shall be the responsibility of the Contractor.
- 5.5.4.3 The written request for a 302 form shall contain the following information:
- Purchaser Contract Number.
 - CLIN, Designation and Quantities.
 - Destination.
 - Number and Gross Weight.
 - Consignors and Consignee's Name and Address.
 - Method of Shipment, i.e. road, rail, sea, air, etc.
- 5.5.4.4 If a country refuses to accept the Form 302 and requires the payment of customs duties, the Contractor shall immediately inform the Purchaser by the fastest means available and obtain from the Customs Officer a written statement establishing that his country refuses to accept the Form 302. Only after having received Purchaser's approval the Contractor shall pay these customs duties and the Purchaser shall reimburse the Contractor at actual cost against presentation of pertaining documents.
- 5.5.4.5 The Contractor shall inform forwarding agents of the availability of Form 302 and how this form is utilised to avoid the payment of customs duties. This Form 302 shall be added to the shipping documents to be provided to the carrier.

Section 6 QUALITY ASSURANCE/CONTROL**6.1 Quality Assurance**

- 6.1.1 The Contractor is solely responsible for the quality of all products provided to the Purchaser.
- 6.1.2 The Contractor shall be ISO 9001:2008 certified. The Contractor shall for the duration of this contract establish, implement and maintain a Quality Assurance and Quality Control System in accordance with AQAP-2130. Furthermore, the Contractor shall recognise and accept the application of AQAP-2070, which is herewith invoked. The Contractor shall:
- 6.1.2.1 Define the quality requirements of the Contract
 - 6.1.2.2 Plan, implement and verify the application of the actions to cover for quality assurance activities
 - 6.1.2.3 Maintain and establish a Quality Assurance Plan (QAP) to:
 - 6.1.2.4 Ensure compliance with contractual requirements
 - 6.1.2.5 Ensure that factors affecting product quality are adequately referenced
 - 6.1.2.6 Verify that quality documentation is in accordance with the agreed contractual requirements and quality system
 - 6.1.2.7 Verify tests are specified and rigorously carried out
 - 6.1.2.8 Verify problems are recorded and tracked
 - 6.1.2.9 Reject non-conforming products and services
 - 6.1.2.10 SubContractor Quality Assurance and Control
 - 6.1.2.11 The Contractor's and Sub-Contractor's QA/QC System relevant to performance under this contract shall be subject to continuous review and surveillance by the cognisant National QA Representative (NQAR(s)). The term NQAR shall apply to any of the Purchase appointed QAR.
 - 6.1.2.12 The Contractor shall include in orders placed with his Sub-Contractor(s) and Supplier(s), the QA/QC System requirements necessary to ensure the supplies and services covered by the Sub-contract(s) and/or Purchase Orders conform to the requirements of the prime contract.

- 6.1.2.13 The Contractor shall specify in each order placed with his Sub-Contractor(s) and Supplier(s), the Purchaser's and his NQAR(s) rights of access to all premises where contractual work is performed, in order to carry out audits, inspections, tests and other functions as may be required by the NQAR(s).
- 6.1.2.14 The Contractor shall be provided with two (2) copies of each of the Sub-Contracts and/or Purchase Orders.
- 6.1.2.15 Certificates of Conformity:
- 6.1.2.15.1 When satisfied that the products and/or services provided by the Contractor are in conformance with the terms of this contract, a Certificate of Conformity (CoC) per Annex B to STANAG 4107 will be countersigned and stamped by the cognisant NQAR(s). The preparation of the CoC(s) shall be the responsibility of the Contractor.
 - 6.1.2.15.2 CoC(s) shall be provided at the time of Technical Transfer.

Section 7 **TESTING AND ACCEPTANCE**

- 7.1 **General**
- 7.1.1 The Contractor is entirely responsible for the co-ordination and performance of the tests and shall ensure that an adequate number of Contractor technicians are present to ensure the timely completion of all tests in accordance with the plan.
- 7.1.2 The Contractor shall provide all the necessary equipment (with valid calibration certificates), tools and any other items required for the satisfactory completion of the tests and the recording results.
- 7.1.3 The test equipment will remain the property of the Contractor and will remain under his responsibility
- 7.1.4 The Contractor shall assign and provide a Test Director and Test Operators. The Purchaser and/or his delegated Representative will attend and witness testing.
- 7.1.5 The Purchaser will have the right to demand repetition of tests, proof of the validity of the test equipment calibration, and performance of reasonable additional tests to clarify doubtful or marginal results. The Contractor shall make available to the Purchaser, all facilities, information and assistance necessary to permit a valid interpretation of the test results.
- 7.1.6 The Test Environment will be under the control of the Purchaser during the testing period. Prior to the commencement of the tests, the Test Environment shall be the baseline and no changes to hardware, software, firmware and/or configuration shall be introduced by the Contractor unless explicitly authorised in writing by the Purchaser. Failure to do so by the Contractor shall render the complete testing null and void.
- 7.1.7 The test plan shall address the proposed test concepts, the schedule, and the approval concept.
- 7.1.8 The Contractor shall produce an **Acceptance Test Procedure** document, unique for all the Acceptance Tests, that shall describe the way the tests will be conducted, step by step, as well as a description of the Test Environment It shall also address in detail the proposed test concepts and approval procedures (also including templates for tests results).
- 7.1.8.1 A first version shall be submitted 4 weeks after EDC for Purchaser's review.

- 7.1.8.2 After the delivery of the document, the Purchaser will have 10 working days to provide his remarks to the Contractor.
- 7.1.8.3 The Contractor will then have 5 working days to provide the updated documentation to the Purchaser.
- 7.1.8.4 A final version shall be produced 2 weeks at least before the first Acceptance Tests. The review of the document shall be considered completed when:
- All Purchaser's comments, agreed between Parties, have been incorporated,
 - The updated document has been received by the Purchaser,
 - The Purchaser agrees to the updated document.
- 7.1.8.5 Any meetings hold during the review of this document shall be done in accordance with PPRM (Project Progress Report Meetings) meetings (see Section 4.5).

7.2 **Acceptance Tests**

- 7.2.1 The Contractor shall conduct the Acceptance Tests at the Contractor's facility.
- 7.2.2 The Contractor shall conduct a Test Readiness Review with the Purchaser, in the form of a matrix checklist, prior to the execution of the Acceptance Tests as a prerequisite. No Test can start without the below conditions being fulfilled and without the Test procedures being approved by the Purchaser:
- 7.2.2.1 System test documentation delivered and approved by the Purchaser. This includes in particular: up-to-date Test and Acceptance Plan, up-to-date Acceptance Test Procedure, up-to-date Requirements Traceability Matrix.
- 7.2.2.2 ILS documentation properly delivered, mainly, but not limited to, Packing Lists and Material Data Sheets.
- 7.2.2.3 The hardware, software, test equipment, instrumentation, supplies, facilities, and personnel are available and in place to conduct the test session.
- 7.2.2.4 Test support tools are available.
- 7.2.2.5 The Test Environment is well documented.
- 7.2.3 The Acceptance Tests shall be performed in different stages according to a previously approved Test and Acceptance Plan.

- 7.2.4 The tests shall comprise at least Power-On Self Tests and IOS/Firmware reviews for the Networking equipment (gateways, routers, switches and firewall) and a Power-On Self Tests and Firmware Reviews/Upgrades for the IP Phones (normal and modified ones).
- 7.2.5 Each of the Acceptance Tests shall conclude with a closure meeting where the test results and any relevant facts will be reviewed, as a previous step for the elaboration of the Acceptance Test Reports.
- 7.2.6 Acceptance Test Report
- 7.2.6.1 The documents listed below comprise the Acceptance Test Reports (associated requirements are defined in Section 9) which shall be prepared for each individual Acceptance Test (AT) by the Contractor:
 - 7.2.6.1.1 Certificates of Conformity that the equipment offered conforms to the contractual standards and is in Conformance with the National codes, laws, regulations and local rules and practices of the Country of installation.
 - 7.2.6.1.2 COTS Warranty statement.
 - 7.2.6.1.3 COTS manuals.
 - 7.2.6.1.4 Licence Agreements.
 - 7.2.6.1.5 Deficiency Summary Sheets which shall list all outstanding Deficiencies. A Remarks column shall briefly record the technical or operational significance and a decision column shall record the Policy Decision taken in respect of each Deficiency. A clearance date column and a signature column are also required.
 - 7.2.6.1.6 An Inventory of provided Supplies which shall detail all the deliverables furnished by the Contractor to meet the terms of the contract for the relevant Acceptance Tests; the inventory shall include all Licence identifiers and keys.
 - 7.2.6.1.7 A QA Report provided by the Contractor's QA Organisation.
 - 7.2.6.1.8 All other documentation as required by the Contract, and specifically as listed in the CDRL (SOW section 9.4).
 - 7.2.6.2 The Contractor shall distribute the Acceptance Reports in accordance with the instructions of the Purchaser.

Section 8 TECHNICAL REQUIREMENTS

8.1 Equipment to be delivered

8.1.1 The Contractor shall delivery the following items, in accordance with the specifications herein:

8.2 CED (Customer Edge Device)

Each of the delivered CED (Customer Edge Device) shall be supplied as an ALCATEL 7705 Service Aggregation Router with the following configuration:

CODE / PN	MNEM	PRODUCT / DESCRIPTION	PRODUCT LINE	RELEASE	Qty
3HE06791A A	SAR-8 SHELF V2	SAR-8 Shelf V2 that accepts redundant DC-power feeds and up to 2 CSMs (V1 or V2) and up to 6 interface cards. Fan Module must be version associated with this V2 shelf. 6 Blanking plates included.	7705 SAR	R5.0	1
3HE06792E A	Fan Module (SAR-8 Shelf V2) Ext Temp -48VDC	Fan Module with extended temperature Range. Installs into SAR-8 Shelf v2 (3HE06791AA). -48VDC	7705 SAR	R5.0	1
3HE02774A B	CONTROL SWITCH MODULE V2 (CSMV2)	SAR Control and Switch Module Version 2. One (1) required per SAR-8 shelf or up to two (2) per SAR-8 Shelf for CPU and fabric redundancy. -48/+24VDC	7705 SAR	R6.0	2
3HE05837B A	7705 AC power converter pigtail - O-ring	Used to connect 3HE05838AA 250W 120/240V AC power converter to SAR-8v2, SAR-A/F/M shelves and any other shelf supporting O-ring connectors	7705 SAR	R4.0	2
3HE05838A A	250W 120/240V AC power converter	250W power adapter brick converting 120/240V AC to -48V DC. Requires separate pigtail for specific 7705 products.	7705 SAR	R4.0	2
3HE03400A A	POWER CABLE (4M)	Power cable (4 meters) for -48 or +24 VDC input on the 7705 SAR-8 Shelf v1 (3HE02773AA). Requires quantity 2 for power feed redundancy. This is not applicable to the SAR-8 Shelf v2 (3HE06791AA)	7705 SAR	R1.0	2
3HE06151A C	8 PORT GE SFP CARD V3 (-48/+24 VDC)	8-port GigE SFP Enhanced Performance Ethernet Card v3 w. Large Tables, encryption capable and supporting Ethernet/VLAN services. Includes 8 SyncE capable GigE ports. SFPs sold separately. This card is supported in both -48 VDC and +24 VDC systems.	7705 SAR	R6.0	1
3HE00062C B	SFP - GIGE BASE-T RJ45 R6/6 DDM -40/85C	1-port 10/100/1000BASE-TX Small Form-Factor Pluggable (SFP) Copper Module, Cat5, RJ45 Connector, RoHS 6/6 compliant, Extended Temperature -40/85C	7750SR	R02.0	6
3HE00027C A	SFP - GIGE SX - LC ROHS 6/6 DDM -40/85C	1-port 1000BASE-SX Small Form-Factor Pluggable (SFP) Optics Module, Multimode Fiber (MMF), 550 meters, 850 nm, LC Connector, Digital Diagnostic Monitor (DDM), RoHS 6/6 compliant, Extended Temperature -40/85C	7750SR	R01.3	2
3HE00028C A	SFP - GIGE LX - LC ROHS 6/6 DDM -40/85C	1-port 1000BASE-LX Small Form-Factor Pluggable (SFP) Optics Module, Single Mode Fiber (SMF), 10 km, 1310 nm, LC Connector, Digital Diagnostic Monitor (DDM), RoHS 6/6 compliant, Extended Temperature -40/85C	7750SR	R01.3	2

3HE02784J A	SAR RELEASE 7.0 BASIC OS LICENSE	SAR Release 7.0 OS License. One (1) OS Upgrade is required for each SAR-8, SAR-F, SAR-M, SAR-A, SAR-W, SAR-Wx, SAR-H, SAR-Hc, SAR-X in the network. See the optional RTUs available for additional advanced features. This SW RTU license is intangible. Nothing physical is shipped. If a paper copy is required, a certificate document may be printed by following the process outlined in document code "SWSC-DEL-L4-10" found at http://libra.app.alcatel-lucent.com/ .	7705 SAR	R7.0	1
3HE08607E A	RTU - 7705 SAR-8 Basic IPSec LICENSE	RTU - SAR-8 Basic IPSec license. Including Encryption Throughput of 250 Mbps and Maximum of 50 IPSec Tunnels. One (1) OS License is required for each SAR-8 in the network.	7705 SAR	R6.1	1
3HE03603N A	5620 SAM-E/A/P R12 LICENSE - 7705 SAR-8	5620 SAM-E/A/P R12 License for 7705 SAR-8 Chassis with 2 MDA's and this could either be a Standard MDA, XMDA or Passive MDA. Customer/Account Team must request the correct MDA type (Standard, XMDA Passive) for licensing. Notes: (1) One License is required for each 7705 SAR-8 Chassis. (2) For additional 7705 SAR- 8/18 Standard MDA's order P/N# 3HE03605NA. (3) For additional 7705 SAR- 8/18 XMDA order P/N# 3HE06551NA. (4) For additional 7705 SAR - Passive MDA's, order P/N# 3HE07421NA This P/N is associated with a License Key.	5620 SAM- E/A/P	R12	1
3HE04125H A	5650 CPAM R8.0 ALU P/PE SM RT LIC (1-100)	5650 CPAM R8.0 Router license up to the first 100 'ALU P/PE Small' class Example - (7210 / 7250 / 7705 / MTU / Omni 68xx).Notes:(1) This license is installed with 5650 CPAM base installations.(2) Ordered per router; e.g.. 25 'ALU P/PE Small' routers requires 25 of this part.(3) Must be ordered prior to ordering (101-300) 'ALU P/PE Small' router licenses.		R8.0	1
3HE04128H A	5650 CPAM R8.0 RCIA ROUTER LIC. (1-100)	5650 CPAM R8.0 Root Cause & Impact Analysis (RCIA) Router license up to the first 100 RCIA Licenses. Notes: (1) Ordered per router; e.g.. 25 routers requires 25 of this part. (2) Must be ordered prior to ordering (101-300) router licenses.			1
3HE09219A A	Service Portal Essential Plus Bundle (v1.0)	Consists of: Base Service Portal Platform Inventory/Capacity Reports Bundle Statistics Reports Bundle Network Topology Map			1

8.3 BCR (Black Core Router)

Each of the delivered BCR (Black Core Router) shall be supplied as a CISCO 2951 with the following configuration:

1	C2951-CME-SRST/K9	1
1.0.1	CON-SNT-2951CMST	1
1.1	MEM-2951-512U1GB	1
1.2	FL-C2951-WAASX	1
1.3	MEM-CF-256U512MB	1
1.4	GLC-SX-MMD	1
1.5	PWR-2921-51-AC	1
1.6	CAB-ACE	1
1.7	SL-29-DATA-APP-K9	1
1.8	FL-CUBEE-5	2
1.9	WAAS-RTU-1300	1
1.10	FL-CME-SRST-25	1
1.11	HWIC-BLANK	3
1.12	ISR-CCP-EXP	1
1.13	SL-29-IPB-K9	1
1.14	SL-29-UC-K9	1
1.15	SM-S-BLANK	2
1.16	S2951UK9-15403M	1
1.17	SL-29-SEC-K9	1
1.18	SL-29-APP-K9	1
1.19	FL-SRST	1
1.20	FL-CME-SRST-25	2
1.21	EHWIC-1GE-SFP-CU	1
1.22	PVDM3-32U128	1

8.4 SAR (Service Access Router)

Each of the delivered SAR (Service Access Router) shall be supplied as a CISCO 3925 with the following configuration:

1	C3925E-CME-SRST/K9	1
1.0.1	CON-SNT-3925ECST	1
1.1	SL-39-SEC-K9	1
1.2	MEM-3900-1GU2GB	1
1.3	MEM-CF-256U512MB	1
1.4	GLC-SX-MMD	1
1.5	PWR-3900-AC	1
1.6	PWR-3900-AC/2	1
1.7	CAB-ACE	2
1.8	3900-FANASSY-NEBS	1
1.9	ISR-CCP-CD	1
1.10	FL-CME-SRST-25	1
1.11	FL-CUBEE-25	1
1.12	C3900-SPE200/K9	1
1.13	SL-39-IPB-K9	1
1.14	SL-39-UC-K9	1
1.15	HWIC-BLANK	3

1.16	SM-D-BLANK	1
1.17	SM-S-BLANK	2
1.18	S39EUK9-15403M	1
1.19	FL-SRST	1
1.20	FL-CME-SRST-100	2
1.21	SL-39-APP-K9	1
1.22	WAAS-RTU-2500	1
1.23	SL-39-DATA-APP-K9	1
1.24	PVDM3-64U128	1

8.5 19" Rack

Each of the 42U 19" Racks shall be supplied with at least the following configuration and shall have the sufficient depth and width suitable for the installation of the supplied equipment; CED, BCR, SAR, UPS, KVM and LAN Switch.

- 4 (four) Shelves
- 2 (two) Cooling Fans
- Side panels, Vented Front and Rear Doors
- 8 (eight) Power strip with Schuko CEE 7/4 outlets

8.6 UPS (Uninterruptable Power Supply)

Each of the UPS (Uninterruptable Power Supply) shall be rack mount and include:

- APC Smart-UPS RT 3000VA RM 230V – Part No. SURTD3000RMXLI
- UPS Network Management Card 2 – Part No. AP9630
- Power-cord (euro-plug).

8.7 KVM (Keyboard Video & Mouse) Switch

Each of the KVM (Keyboard Video & Mouse) Units shall be supplied with the following configuration:

- At least 15" Display
- US Keyboard layout with integrated mouse/mouse pad
- Interfaces and cabling for connection to the CED, BCR, SAR and LAN Switch units

8.8 AIS (Automated Information System) Workstation

Each of the delivered AIS (Automated Information System) Workstations shall be supplied with the following configuration:

Similar to HP EliteDesk 800 G2 Tower PC with the following technical specifications:

- Operating System - Windows 7 Enterprise x64 SP1
- CPU - Intel i7 6700, 3.40 GHz or above
- Memory - 8GB or above
- Hard Drive – 500 GB 7200 RPM SATA HDD with a removable and lockable hard disk cage
- Optical Drive – DVD RW Optical Drive
- Display - 23/24 inch Full HD (1920x1080) LCD monitor
- Graphics Card – AMD Radeon R9 350 or similar
- NIC – Allied Telesis AT-2911SX/LC Gigabit Fibre Ethernet
- Keyboard - QWERTY US
- Mouse – USB Mouse

8.9 **Printer/Scanner**

Each of the delivered MFP (Multi-Functional Printer) Printer/Scanners shall have at least the following characteristics:

- Enterprise Grade MFP with Print, Scan and Copy functionality
- A4 Paper Size
- Duplex printing and scanning capability
- Up to 1200 x 1200 optimised dpi black and 2400 x 1200 optimised dpi colour printing
- Up to 50 ppm single and up to 25 ppm duplex black and colour print speeds
- Up to 600 x 600 dpi flatbed Copy Function
- Up to 600 x 600 dpi Scanner Resolution with up to 40 ppm/40ipm scan speed
- Digital file formats to be supported; PDF, JPEG, TIFF, XPS
- Send to e-mail capability
- Gigabit Ethernet 10/100/1000 connectivity
- MS Windows 7 and above compatible
- IPv4/IPv6, SNMPv1/v2/v3, http, https, FTP, SFTP, IPP, Secure IPP support
- Security Management; Kerberos and LDAP Authentication, User PIN codes, Storage encryption (AES 256), Secure Erase, USB Port disablement, Encrypted PDF and e-mail (FIPS 140-2), SSL/TLS support
- Ethernet Embedded Print Server capability
- User replaceable print cartridges dedicated for black, cyan, magenta and yellow inks
- Two (2) sets of spare print cartridges for each colour shall also be supplied with each of the MFP Printer/Scanner units
- 100-240 VAC 50/60Hz with Schuko Power plug

8.10 LAN Switch

Each of the LAN Switches shall be 24 Port CISCO 3560 PoE (Power over Ethernet) Switch, which shall include the following configuration:

CISCO Cisco Catalyst 3650 24 Port PoE 4x1G Uplink IP Base		QTY
WS-C3650-24PS-S	CISCO Cisco Catalyst 3650 24 Port PoE 4x1G Uplink IP Base	1
S3650UK9-37E	CISCO CAT3650 Universal k9 image	1
PWR-C2-640WAC	CISCO 640W AC Config 2 Power Supply	1
PWR-C2-640WAC/2	CISCO 640W AC Config 2 Secondary Power Supply	1
CAB-TA-EU	CISCO Europe AC Type A Power Cable	1
Hardware Part #: WS-C3650-24PS-S CON-SNT-WSC3652S	CISCO SMARTNET 8X5XNBD Cisco Catalyst 3650 24 Port PoE 4x1G Upl	1
	Standard rack-mount kit	1

8.11 NGCS POP Interface

NGCS POP (NATO General Purpose Communications System Point of Presence) Interfaces will provide the additional interfaces required for the connection of the CEDs to the existing NGCS POPs. Each of the NGCS POP Interfaces shall be supplied with the following configuration:

CODE / PN	MNEM	PRODUCT / DESCRIPTION	PRODUCT LINE	RELEASE	Qty
3HE06151A C	8 PORT GE SFP CARD V3 (-48/+24 VDC)	8-port GigE SFP Enhanced Performance Ethernet Card v3 w. Large Tables, encryption capable and supporting Ethernet/VLAN services. Includes 8 SyncE capable GigE ports. SFPs sold separately. This card is supported in both -48 VDC and +24 VDC systems.	7705 SAR	R6.0	1
3HE00062C B	SFP - GIGE BASE-T RJ45 R6/6 DDM -40/85C	1-port 10/100/1000BASE-TX Small Form-Factor Pluggable (SFP) Copper Module, Cat5, RJ45 Connector, RoHS 6/6 compliant, Extended Temperature -40/85C	7750SR	R02.0	4
3HE00027C A	SFP - GIGE SX - LC ROHS 6/6 DDM -40/85C	1-port 1000BASE-SX Small Form-Factor Pluggable (SFP) Optics Module, Multimode Fiber (MMF), 550 meters, 850 nm, LC Connector, Digital Diagnostic Monitor (DDM), RoHS 6/6 compliant, Extended Temperature -40/85C	7750SR	R01.3	2
3HE00028C A	SFP - GIGE LX - LC ROHS 6/6 DDM -40/85C	1-port 1000BASE-LX Small Form-Factor Pluggable (SFP) Optics Module, Single Mode Fiber (SMF), 10 km, 1310 nm, LC Connector, Digital Diagnostic Monitor (DDM), RoHS 6/6 compliant, Extended Temperature -40/85C	7750SR	R01.3	2

3HE03605N A	5620 SAM-EAP R12 ADDL- 7705 SAR-8/18 MDA	5620 SAM-E/A/P R12 - Additional License for 7705 SAR-8/18 MDA's.	5620 SAM- E/A/P	R12	1
		The following MDAs are considered Standard MDA's:			
		All other SAR-18, SAR-8 MDAs			
		This P/N is associated with a License Key.			

8.12 **Ancillaries and Cabling**

The Purchaser will perform site surveys to identify the ancillaries and cabling requirements for the connectivity of the components at each site. Following completion of these site surveys, the Contractor will be required to provide a price proposal for the delivery of the required ancillaries and cabling under a Contract Amendment.

Should this information be available at the Pre-Award stage, the Purchaser will request provision of the relevant price proposal from the Prospective Contractor for inclusion in the Main Contract.

Section 9 DOCUMENTATION REQUIREMENTS

- 9.1 **General**
- 9.1.1 Each document shall be delivered in electronic version.
- 9.1.2 Project Website
- 9.1.2.1 The Contractor shall use the project website provided by the Purchaser to maintain all NATO UNCLASSIFIED documents.
- 9.1.2.2 The Purchaser will provide the necessary access rights to the Contractor.
- 9.1.2.3 The Contractor shall maintain on this website all unclassified documents, as soon as they are submitted in draft version to the Purchaser. This includes all project deliverables, presentation materials from all meetings, as well as the Contract SOW and SRS, and all applicable documents. More generally, the website shall include any document as deemed necessary by the Purchaser.
- 9.1.3 The "Delivery date" is the date of the working day at which the Purchaser received the item. In the case the item is delivered on Saturday, Sunday or other NATO's not working day, the "Deliver day" is the first following working day.
- 9.1.4 In order to be compatible with the Purchaser's software, all documents, worksheets, drawings, slides and schedules/plans shall be compatible with Microsoft Office.
- 9.1.5 Each deliverable document shall be written in English.
- 9.1.6 Documentation deliverables consist of documentation written in answer to the various contract requirements as well as readily available COTS documentation that includes user, administrator and maintenance handbooks and manuals. No specific format requirements do apply for existing COTS documentation. Any developed documentation as well as other contractual documentation, shall conform to a minimum set of format requirements as detailed in Section 9 .
- 9.1.7 Site deliverable documentation shall be made available for desktop review prior to the intended use and then during the acceptance activities.
- 9.1.8 The Contractor shall be responsible for providing all necessary corrections, additions and amendments to all deliverable documentation.

- 9.1.9 When the goods being provided are COTS and no electronic copy of the documentation can be obtained, the associated documentation can be accepted in hard copy only. The Purchaser shall be advised accordingly together with a proof that no electronic version exists. Each COTS equipment shall be accompanied by its respective documentation.
- 9.1.10 The Purchaser reserves the right to make additional copies of any documentation provided under this contract for his internal use.
- 9.1.11 The Contractor shall provide and update the status of each deliverable for the whole documentation related to the project. This information state shall be delivered for each meeting and presented in a chart format. It shall include for each document:
- The title.
 - The type of document (technical note, report, etc.).
 - The unique identifier.
 - The security classification.
 - The level of approval within the industrial organisation.
 - The contractually required, planned and achieved delivery date (only for deliverable documents).
 - Unambiguous configuration.
 - The state of the document (outline available, being written, draft, accepted, approval process etc.).

9.2 **Documentation Format requirements**

- 9.2.1 Header and Footer marking shall show the NATO classification, normally "NATO UNCLASSIFIED" or "NATO RESTRICTED".
- 9.2.2 The first page shall show the document title, project title, contract number as well as version number and issue date, if applicable, and which shall also be shown on each subsequent page bottom.
- 9.2.3 Developed documentation shall contain a Table of Contents. It shall be noted that depending on the type of document, a Table of Content might not be required. This shall be agreed between the Purchaser and Contractor beforehand.
- 9.2.4 All developed documentation delivered to the purchaser shall be delivered in two formats with identical content:
- 9.2.4.1 Native version editable format.
 - 9.2.4.2 Digitally signed pdf "contractual reference" version.

9.3 CONTRACT DOCUMENT REQUIREMENT LIST (CDRL)

- 9.3.1 The Contractor shall maintain and provide to the Purchaser a Contract Document Requirements List (CDRL, as part of the Project Progress Report. The CDRL shall contain the status of all documentation to be provided under the Contract: Title, reference, quantity and status (i.e. draft, approved, revision level. etc.). A final version of the CDRL shall be delivered to the Purchaser prior to final System Acceptance.
- 9.3.2 Delivery of Documentation: The Contractor shall deliver the documents listed below (collected also in the SSS document) and shall remain responsible for producing any required changes to the documentation during the warranty period. These shall always be in the form of change pages; pen and ink corrections shall not be acceptable.

CONTRACT DOCUMENT REQUIREMENTS LIST

Serial	DOCUMENT NAME	REF.	Schedule
	CDRL		
1.	Project Implementation Plan (PIP), including: Project Master Schedule Management and Programme control Communications plan Risk Assessment/Risk Log Manpower assurance Quality assurance plan Test and Acceptance plan	4.4	Final PIP : EDC + 3 weeks
2.	Project Highlight Reports	4.5	NLT 5 working days before the PPM
3.	Project Review Meeting Minutes	4.5	Within one week after the PPM
4.	ILSP	5.1.1	EDC + 3 Weeks
5.	Material Data Sheet (MDS)	5.4.1	As per SOW
6.	Final System Inventory	5.4.1.2	2 weeks before last Acceptance Test
7.	Logistics movement documentation, including Notices of Shipment, Packing lists and requests for 302 forms	5.5	As per SOW
8.	Acceptance Test Procedure	7.1.8	Within 2 weeks before the tests
9.	Acceptance Test Report	7.2.6	Within 1 week after the completion of the test

Section 10 ABBREVIATIONS

AC	Alternating Current
AIL	Action Items List
BIT	Built-In Test
CLIN	Contract Line
COTS	Commercial Off The Shelf
DVD	Digital Versatile Disc
EDC	Effective Date of Contract
FC	Fiber Channel
FSA	Final System Acceptance
GB	Gigabyte
HW	Hardware
iLO	Integrated Lights Out
IP	Internet Protocol
LAN	Local Area Network
MFP	Multi-Functional Printer
MOTS	Military Off The Shelf
MS	Microsoft
MTBF	Mean Time Between Failure
NAF	NATO Architecture Framework
NATO	North Atlantic Treaty Organisation
NCIA	NATO Communications and Information Agency
NDI	Non-Developmental Item
NCSA	NATO Communications and Information System Services Agency
NS network	NATO Secret Network
O&M	Operations and Maintenance
OEM	Original Equipment Manufacturer
PCI	Peripheral Component Interconnect
PDF	Portable Document Format
PFE	Purchaser Furnished Equipment
PFI	Purchaser Furnished Item
PIP	Project Implementation Plan
PM	Project Manager

PMO	Project Management Office
POC	Point Of Contact
PMS	Project Master Schedule
PPRM	Project Progress Review Meeting
PWP	Project Work Package
RAID	Redundant Array of Independent Disks
RC	Regional Command
RFD	Requests for Deviation
RFW	Requests for Waiver
ROM	Read-only Memory
SAN	Storage Area Network
SAT	Site Acceptance Test
SATA	Serial AT Attachment
SIS	System Installation Specification
SOP	Standard Operating Procedure
SOW	Statement of Work
SQL	Structured Query Language
SSS	Schedule of Supplies and Services
STANAG	Standardization Agreement
SW	Software
TB	Terabyte
UPS	Uninterruptible Power Supply
WAN	Wide Area Network
WBS	Work Breakdown Structure
WP	Work Package