

CO-14553-ITM-M

**PROVIDE EQUIPMENT AND SERVICES FOR ITM
MITIGATION Horizon 3**

**Procurement of Hardware and Software
Standard User Equipment**

PART IV

STATEMENT OF WORK (SOW)

Amendment 2

1 APPLICABLE REFERENCES

- 1.1 AQAP 160; NATO Integrated Quality Requirements for Software throughout the Life Cycle; dated Jul 2001.
- 1.2 AQAP 169; NATO Guidance on the use of AQAP-160 Edition 1; dated Jul 2001.
- 1.3 AQAP 2000; NATO Policy on an Integrated Systems Approach to Quality Through the Life Cycle Edition 3; dated Nov 2009.
- 1.4 AQAP 2009; Guidance on the use of the AQAP 2000 Series Edition 3; dated March 2010.
- 1.5 AQAP 2070; NATO Mutual Government Quality Assurance (GQA); Edition B Version 3; dated Aug 2015.
- 1.6 STANAG 4107; Mutual Acceptance of Government Quality Assurance and Usage of the Allied Quality Assurance Publications (AQAP); Edition 9; dated 24 Jun 2016.
- 1.7 STANAG 6001; Language Proficiency Levels Edition 5; dated 11 Dec 2014
- 1.8 NATO Information Assurance Product Catalogue -<https://www.ia.nato.int/niapc>
- 1.9 IEEE 802.3-2015 - Physical layer and data link layer's media access control (MAC) of wired Ethernet
- 1.10 IEEE 802.11-2012 + 802.11ac - Wireless local area network (WLAN) computer communication in the 2.4 and 5 GHz frequency bands
- 1.11 Windows Hardware Compatibility database
(<http://www.microsoft.com/hardware/en-us/support/compatibility>)
- 1.12 TCG Trusted Platform Module 1.2 (ISO/IEC standard 11889:2009) and 2.0
(http://www.trustedcomputinggroup.org/resources/tpm_main_specification)
- 1.13 TCG Storage Work Group Storage Security Subsystem Class: Opal
(http://www.trustedcomputinggroup.org/resources/storage_work_group_storage_security_subsystem_class_opal)
- 1.14 IEEE 1667 - Standard Protocol for Authentication in Host Attachments of Transient Storage Devices
- 1.15 Microsoft – Factory Encrypted Drives (<https://technet.microsoft.com/en-us/library/hh825213.aspx>)
- 1.16 IEC 61966-2-1:1999 - Specification of the sRGB colourspace

2 INTRODUCTION

- 2.1 This document details the Contractor's obligations with respect to the delivery of equipment and services under the Contract.
- 2.2 The purpose of this Statement of Work (SOW) is to describe the requirements for Information Technology (IT) equipment to be provided through a framework contract that facilitates the central procurement and replacement of IT equipment up until the IT Modernization project takes over the provision of modern IT capabilities at each command location.
- 2.3 NATO is in the process of increasing the efficiency and effectiveness of NATO's Information Technology through projects in the IT Modernisation (ITM) Programme as part of Capability Package (CP) 9C0150 for Core Information Services for Command and Control.
- 2.4 The scale and sequencing of the ITM Programme means a portion of the currently operational IT equipment will reach the end of its serviceable life before the ITM project is able to replace it with modern solutions.
- 2.5 This "IT Modernization Mitigation Horizon 3" (ITM-M) project puts in place measures to enable the lifecycle replacement of IT equipment which has reached the end of its serviceable life and is unable to effectively meet demands for service availability, capacity and performance.
- 2.6 The ITM-M project is targeted mainly at the NATO Command Structure (NCS) but will also encompass other NATO Agencies and entities that require replacement of IT equipment or have new capabilities implemented ahead of IT Modernization.
- 2.7 The Contract consists of a firm fixed-price framework for quantities of equipment and services. Equipment and services will be delivered in accordance with Final Task Orders as agreed between the parties as detailed in the Contract Special Provisions Clause 5.

3 SCOPE

- 3.1 The locations identified for equipment deliveries for this contract are:
 - a. SHAPE (Mons, BEL)
 - b. JFC Naples (Lago Patria, ITA)
 - c. ACT (Norfolk, USA)
 - d. MARCOM (Northwood, GBR)
 - e. LANDCOM (Izmir, TUR)
 - f. NCI Agency CSSC / JFC (Brunssum, NLD)
 - g. JWC (Stavanger, NOR)
 - h. JFTC (Bydgoszcz, POL)
 - i. JALLC (Lisbon, POR)
 - j. CAOC (Uedem, GER)
 - k. CAOC (Torrejon, ESP)

- l. DACCC (Poggio Renatico, ITA)
- m. NATO Signal Battalion (Wesel, GER)
- n. NATO Signal Battalion (Grazzanise, ITA)
- o. NATO Signal Battalion (Bydgoszcz, POL)
- p. Deployable CIS Module (Blandford/Stratford, GBR)
- q. Deployable CIS Module (Haderslev, DNK)
- r. Deployable CIS Module (Pleso, HRV)
- s. Deployable CIS Module (Bucharest, ROU)
- t. Deployable CIS Module (Gorna Malina, BGR)
- u. Deployable CIS Module (Lipnik nad Becvou, CZE)
- v. Deployable CIS Module (Ruzomberok, SVK)
- w. Deployable CIS Module (Izmir, TUR)
- x. Deployable CIS Module (Szekesfehervar, HUN)
- y. Deployable CIS Module (Vilnius, LTU)

3.2 Additionally the following NATO locations will take delivery of equipment in order for use, to provide services to the command locations listed above or for logistical purposes:

- a. NCI Agency (The Hague, NLD)
- b. NCI Agency (Brussels, BEL)
- c. NCI Agency, CIS Sustainment Centre (CSSC) (Brunssum, NLD)¹

3.3 With the exception of some *Standard User Equipment* items the project will perform like-for-like replacement of branded equipment where there is a need to maximize the homogeneity of existing holdings, leverage existing skills, support and logistics arrangements and eliminate the need for retraining.

4 CONTRACTOR TASKS

4.1 The Contractor shall deliver all hardware, software and services as specified in Annex A to this SOW and in the Schedule of Supplies and Services (SSS) and Final Task Orders (TO) to the specified destination.

4.2 The Contractor shall assemble components and preconfigure NATO software baseline and settings (provided by the Purchaser as PFE at Contract award) at their facility in order to streamline the installation of the following *Standard User Equipment* before delivery:

- a. Desktop PC
- b. Workstation
- c. Laptop

4.3 Where requested, the Contractor shall ensure that certified installation and professional services engineers with a NATO security clearance (NS) are used

¹ Default delivery destination

from the equipment manufacturer/vendor support organisation to install and commission equipment to comply with support/warranty requirements.

- 4.4 The Contractor shall ensure that all other personnel who are required to work unescorted in classified areas are in possession of a NATO security clearance.
- 4.5 The Contractor shall ensure that the Contractor personnel is able to communicate in English meeting the 4343 level as per ref. 1.7.
- 4.6 The Purchaser's Project Manager will be the primary interface between the Contractor and the Purchaser for technical matters, the Purchaser's Contracting Officer remains the overall Purchaser representative.
- 4.7 The Purchaser's Project Manager will be supported by specialists in certain areas who may, from time to time, be delegated to work with the Contractor on the Project Manager's behalf in their area of expertise.
- 4.8 The Contractor shall perform all other tasks specified in this Contract.

5 PROJECT SCHEDULE

- 5.1 The Contractor shall supply all equipment to the specified location in accordance with the SSS or Final Task Order.
- 5.2 Where requested, the Contractor shall provide qualified and experienced engineers at specified locations to support installation and migration activities under the direction of NCI Agency in accordance with the SSS or Final Task Order.
- 5.3 All equipment is to be delivered as specified in the Final Task Order.
- 5.4 The Contractor shall every week provide status updates on all current Task Orders via e-mail to the Purchaser's Project Manager and shall be available to meet or discuss project performance with the Purchaser's Project Team within 24 hours of notification.

6 TECHNICAL REQUIREMENTS

- 6.1 The technical requirements of the hardware, software and services to be provided under this Contract are described in Annex A to this SOW.

7 INTEGRATED LOGISTIC SUPPORT

7.1 INTRODUCTION

- 7.1.1 This Integrated Logistics Support (ILS) section outlines the general ILS requirements of this Contract.

7.2 SHIPPING AND TRANSPORTATION

- 7.2.1 All goods delivered under each Task Order shall be delivered to the destination detailed in the Task Order. The items being returned after warranty repair shall be shipped to CSSC Brunssum at no additional cost.
- 7.2.2 All materials covered under the Contract, including items being returned after warranty repair, shall be shipped Delivered Duty Paid (DDP) to the addresses specified in accordance with current INCOTERMS published by the International Chamber of Commerce.
- 7.2.3 The Purchaser shall not be liable for any storage, damage or any other charges involved in such transportation of supplies prior to the actual acceptance of such supplies at destination.
- 7.2.4 The Purchaser will not accept responsibility and/or ownership of the equipment before acceptance is complete.
- 7.2.5 The Purchaser's Point of Contact (POC) for all shipment instruction and shipment requests is:
 - Mr. Heinz Mueller-Nordmann (NCI Agency)/ILS Office
 - Tel: + 32 6 544 6160
 - Fax: + 32 6 544 7609
 - E-mail: Heinz.Mueller-Nordmann@ncia.nato.int
- 7.2.6 Each shipment shall be composed of one batch of one or more pallets. A pallet shall be defined as the standard Euro-pallet (EUR/EPAL; 1200mm x 800mm), packed to a height as close as practicable to a total maximum height of 1800mm, and not exceeding a total weight of 1000 Kg.

7.3 PRESERVATION AND PACKAGING

- 7.3.1 The Contractor shall, for the purpose of transportation, package, crate or otherwise prepare the various deliverables in accordance with the best commercial practices for the types of deliverables involved, giving due consideration to shipping and other hazards associated with the transportation of consignments overseas.
- 7.3.2 The Contractor shall establish the packing lists in such a way to permit easy identification. These packing lists shall accompany the shipment. Each individual container/box from a consignment shall have a packing list in a weatherproof envelope attached to the outside of each container/box detailing its contents. A second copy of the list is required inside each container/box.
- 7.3.3 The packing list shall include the following information as a minimum:

Serial	Requirement
1	The Shipping Address
2	Package Number
3	Contract Number
4	CLIN Number as per Schedule of Supply and Services
5	Item Description
6	Part Number
7	Serial Number
8	Quantity

Serial	Requirement
9	Weight and Volume details
10	Box number and number of boxes in the consignment
11	Name and address of the Contractor, Purchaser and Consignor

7.4 CUSTOMS FORMS 302

7.4.1 The Contractor shall be responsible for the timely request of Custom Forms 302, which may facilitate duty free import/export of supplies between EU and Non-EU countries.

7.4.2 The written request for a 302 form shall contain the following information:

Serial	Requirement
1	Purchaser Contract Number
2	Contract Line Item Number (CLIN), designation and quantities
3	Destination
4	Number and gross weight
5	Consignor's and Consignee's name and address.
6	Method of shipment, i.e. road, air, sea, etc.
7	Name and address of the freight forwarder
8	POC to receive the Form 302

7.4.3 The Contractor shall ensure that forwarding agents are informed of the availability of Form 302 and how this form is utilised to avoid the payment of Customs Duties. Form 302 must be added to the shipment documents to be provided to the carrier.

7.4.4 Following receipt of the request by the Purchaser, normally ten (10) working days are required for the issue of the form.

7.4.5 These forms shall be originals and must be mailed or delivered by mail/express courier.

7.4.6 If an express courier has to be used by the Purchaser to ensure that the form is available on time before shipment, all associated costs shall be reimbursed by the Contractor.

7.4.7 If a Country refuses to accept the Form 302 and requires the payment of custom duties, the Contractor shall immediately inform the Purchaser by the fastest means available and obtain from the Custom Officer a written statement establishing that its country refuses to accept the Custom Form 302.

7.4.8 Only after having received Purchaser's approval, the Contractor shall pay these customs duties and shall claim reimbursement from the Purchaser.

7.4.9 The carrier shall be fully conversant with the application and use of Custom Form 302.

7.4.10 The Contractor shall add the Custom Form 302 to the shipping documentation.

7.4.11 It shall be noted that documents have to be originals which need to be available for the goods to cross Customs.

7.5 NOTICE OF SHIPMENT

7.5.1 One (1) week prior to the delivery of any shipment of supplies, the Contractor shall provide Notice of Shipment to the Purchaser's ILS Office and to such other persons as are designated, in accordance with the instruction of the Purchaser. This notice shall be provided electronically and shall include the following information:

Serial	Requirement
1	Purchaser Contract Number
2	Contract line Item Number (CLIN), designation and quantities
3	Items Description, Quantity and Manufacturer Part Number
4	Destination
5	Number of packages/containers, dimensions and gross weight
6	Consignor's and Consignee's name and address
7	Mode of shipment, e.g., road, air sea, etc.
8	Date of shipment
9	Number of the Form 302 used (if required)

7.6 INVENTORY

7.6.1 The Contractor shall provide the full and complete inventory/Material Data Sheet (MDS) of all items and documents to be delivered under this contract at least ten (10) (preferably twenty (20) working days before shipment. It shall contain the following information:

Field	Description
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.
Nomenclature	Short Item Description (text- 35 digits). Should always start with the main item name followed if possible by a technical specification, followed by the next higher assembly names in hierarchical order, separated by commas. E.g. for a coax connector of a television cable the nomenclature should read: CONNECTOR, COAX, CABLE, TELEVISION.
EQRE (XB/ND)	Code (text-2 digits). Defines whether an item is repairable (ND) or not (XB) from a technical point of view.
True Manufacturer Part Number	True Manufacturer P/N (text-32 digits). Part Number given to this item by the original manufacturer.
True Manufacturer Code (or complete name and address)	True Manufacturer Code (text-5 digits). Code of the Company that has manufactured this item. This is an internationally recognized 5-digit code which is unique to that company. It corresponds to the "cage code" in the USA. Manufacturer Codes and Cage Codes are obtainable from the national governmental authorities or, if it already exists, from the "NATO Master Cross-Reference List" (NMCRL) obtainable from NAMSA. In case the code cannot be obtained, it will be sufficient to enter the complete name and address information of the true manufacturer.

Field	Description
Vendor/Contractor Code (or complete name and address)	Vendor (Contractor) (text-5 digits). Company which sells the item or the complete system to which this item belongs. The vendor is the company with which the contract is placed but is not necessarily the true manufacturer of the item. If the vendor company has also designed and integrated the complete system it is also known as Original Equipment Manufacturer (OEM). The company code is an internationally recognized 5-digit code which is unique to that company. It corresponds to the "cage code" in the USA. Manufacturer Codes and Cage Codes are obtainable from the national governmental authorities or, if it already exists, from the "NATO Master Cross-Reference List" (NMCRL) obtainable from NAMSA. In case the code cannot be obtained, it will be sufficient to enter the complete name and address information.
Vendor/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.
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.
Order Unit	Order Unit (text-2 digits). Unit under which the item is sold, e.g. each, set, meter, etc.
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".
Serial Number	Serial Number. If Serialized Item Tag is "Y" (yes) then add serial number here. (1 serial number per line). If system is already installed, then the Contractor shall indicate here the serial numbers installed at user site. For items to be delivered to depots the Contractor may not know the serial number in advance, in that case it will be completed by the receiving site.
Serial Number Software Revision Level	Software Revision Level (text- 30 digits but can be expanded as necessary) If item carries a serial number and field "serial number" is completed, add SW revision level / version here if appropriate.
Serial Number Hardware Revision Level	Hardware Revision Level (text- 30 digits but can be expanded as necessary) If item carries a serial number and field "serial number" is completed, add HW revision level / version here if appropriate.
Other Serial Number attributes	Other Serial Number Attributes (text-to be defined). This field will be used and defined on a case by case basis to be decided by NCIA System Manager, NCIA and the Contractor for other attributes which might be required for a particular system.

Field	Description
Subject to Property Accounting	NDSS-MRCS (text-1 digit). NCIA will decide whether or not item is subject to property accounting and is to appear on the customer balance lists. This field will be completed Y or N by NCIA.
Currency	Currency (text-3 digits). International 3-digit code (ISO) representing the currency in which the item purchase price (or the estimated value) is expressed.
Price	Item Price (number-11 digits). Unit price with 2 decimals.
Warranty Expiration Date	Warranty Expiration Date (date: DD/MM/YY). Shows the date on which the warranty of this item expires, which is usually N days after delivery of the item. If delivery is scheduled for a certain date, warranty expiration date = delivery date + warranty period in days.
Receiving / Inspection Depot	Receiving / Inspection Depot (TXT-2 digits). Information will be provided to Contractor by the Purchaser's ILS Officer. This is the depot to where the vendor ships the material. Normally this depot will receive, inspect and put the material in stock against Dues-In to be created in accordance with Qty in column "Qty Ordered". In case of a deviation from this rule, the Purchaser will inform the Contractor of the correct final Depot and through which depot the items shall have to transit.
Issue to customer	Customer Code (text-4 digits - to be completed by NCIA). Code representing the customer to which the item(s) shall be shipped by the receiving/ inspecting depot.
Extended Line Item Description	Extended Line Item Description (text-no limit). Any additional information concerning this item shall be entered here, e.g. technical specifications, configuration, reference to technical drawings or manuals etc....
Part Number of next higher assembly	Part-Number of Next Higher Assembly (text-32 digits) If item is built-in another assembly, indicate part number of that assembly here.
Qty in next higher assembly	Quantity in Next Higher Assembly (number-3 digits max). This field shows the built-in quantity of the item in the next higher assembly. This information shall be provided for configuration control purposes.
Qty installed at Operating Unit (Customer Site)	Quantity installed. This field is only applicable when the delivery is direct to an operating unit (customer site). However in that case it is mandatory. For non-serialized items it shows total quantity installed. For serialized items quantity shall only be one per serial number. Use a new line for each serial number.

7.6.2 The Contractor may request an electronic version of the MDS to be provided by the Purchaser at EDC

7.7 TECHNICAL DOCUMENTATION

7.7.1 Each deliverable shall be accompanied with its COTS documentation. This documentation shall be identified in the inventory.

7.7.2 All documentation shall be in the English language.

7.8 WARRANTY & SUPPORT

- 7.8.1 The Contractor shall cover all devices procured under this contract with a 3 years on-site warranty with Next Business Day replacement service.
- 7.8.2 The Warranty shall start at the date of Purchaser acceptance of the equipment at the destination sites.
- 7.8.3 The support/warranty shall include cost of parts, travel and per diem and shall not attract extra cost to the Purchaser. This support shall be available to the location stated in the Schedule of Supplies and Services.
- 7.8.4 The Contractor shall provide detailed handling instructions, including help-desk or other Point of Contact information, to be contacted in case of a warranty claim. The warranty shall include standard technical telephone and email support.
- 7.8.5 The Contractor shall provide shipment address for faulty equipment to the Purchaser. The shipment of faulty equipment to the Contractor is at the expense of the Purchaser. The shipment of repaired or replaced equipment from the Contractor to the Purchaser's place of origin shall be at the expense of the Contractor.
- 7.8.6 The Contractor shall be aware that, due to NATO security constraints, all failed hard disks/ drives and memory can only be repaired or replaced on-site and cannot be removed and/ or returned to the Contractor for repair/ exchange. Failed hard disks/ drives and memory will be destroyed on-site by the Purchaser. Failed hard disks/ drives and memory shall therefore be replaced by the Contractor, at no extra cost to the Purchaser.
- 7.8.7 The Contractor shall further be responsible for the provision of any alternatives or superseding items should the original part be no longer available during the Warranty period, ensuring form, fit and functional requirements.

7.9 LABELLING AND MARKING

- 7.9.1 Labelling and marking shall be compliant with STANAG 4281 "NATO Standard Marking for Shipment and Storage" unless specified differently in the requirements of this Contract.
- 7.9.2 The Contractor shall produce labels and label all items furnished under the Contract with the true manufacturer's name (CAGE code), part number and serial number to ensure proper and quick identification of delivered items.
- 7.9.3 All labels shall also contain a machine readable barcode compliant with STANAG 4329 Barcode Standard 128 and in accordance with the Purchaser's coding schema. A coding schema will be provided by the Purchaser at Contract Award. In any case, The Purchaser reserves the right to determine at any time what will be printed on a label. The Purchaser reserves the right to affix its own labels to any item delivered.
- 7.9.4 If instead the Purchaser provides its labels to the Contractor, the Contractor shall affix these labels on the items designated by the Purchaser.
- 7.9.5 The Contractor shall affix Purchaser provided labels at the Contractor's facility, prior to shipment of items.

7.9.6 The Contractor shall allow the Purchaser to supervise the labelling, if so desired by the Purchaser.

8 QUALITY ASSURANCE

8.1.1 Upon Purchaser request, the Contractor shall provide evidence that the QA/QC organization in his company has sufficient inherent authority and visibility in the overall corporate structure to properly execute the QA Management of a project of this size.

8.1.2 Upon Purchaser request, the Contractor shall address the QA/QC he applies to this project and shall describe its internal process for the quality review of the deliverables before their release to the Purchaser.

8.1.3 The Contractor shall ensure that the goods meet the following level of quality:

8.1.3.1 All delivered supplies are compliant with the approved technical specifications;

8.1.3.2 All delivered supplies are of the requested type and quantity;

8.1.3.3 All delivered goods are not damaged or defective.

8.1.4 The Contractor shall undertake quality control of each batch of equipment prior to shipment and present the report of the checks in a written form together with the shipment of goods.

9 SUPPLY CHAIN SECURITY

9.1.1 The Contractor shall warrant that all supplies furnished under this Contract are genuine and free of malicious components, firmware and software.

9.1.2 The Contractor shall ensure that all equipment to be delivered are protected from malicious tampering during storage and transportation up to the point of delivery.

9.1.3 The Contractor shall confirm in the MDS, per item, that the items to be delivered have been checked for technical integrity and protected from malicious tampering.

9.1.4 The Contractor shall also identify in the MDS, per item, the identity of the supplier of the item and the identities of suppliers of major components thereof.

9.1.5 The Contractor shall allow and support ad-hoc spot checks and audits by the Purchaser of any of his supply chain security measures at any of the Contractor's locations and facilities used in the Contractor's supply chain relevant to this Contract.

9.1.6 The Purchaser reserves the right to reject any equipment delivered which does not conform to the description provided in the MDS or shows evidence of tampering. The Contractor shall replace such rejected goods at no cost to the Purchaser.

ANNEX A: TECHNICAL SPECIFICATIONS

- TS-1 The equipment delivered under this Contract shall meet or exceed the specifications provided in this Annex. The equipment comprises Standard User Equipment and accessories.
- TS-2 Where the specification does not identify branded equipment or is generic, then equipment from mainstream brand manufacturers shall be offered.
- TS-3 All devices used in the ITM environment shall be optimized for energy efficiency. The products should carry the Energy Star 5.0 qualification to confirm sufficient energy efficiency.
- TS-4 All equipment shall meet the RoHS EU directives: 2002/95/EC, 2011/65/EU and 2015/863.
- TS-5 All client equipment and accessories shall conform to CE and/or FCC standards.
- TS-6 Equipment shall not emit continuous noise exceeding LpAm = 35 dBA.
- TS-7 All primary power cables shall have a minimum length of 3 meters (plug to device).
- TS-8 Commercial Off-The-Shelf (COTS) products shall be used for all equipment and accessories.
- TS-9 The components in the Contractor’s solution that perform the same functions shall be of the same brand and model. Respectively all products should be single type and uniform for each CLIN.
- TS-10 All physical interfaces shall be based on open industry standards.
- TS-11 All equipment shall have a Mean Time between Failure (MTBF) that exceeds the life span articulated below:

<u>Service component</u>	<u>Life expectancy</u>
Desktop PC	5 Years
Workstations	5 Years
Laptop	3 Years
Software	10 Years

The Purchaser plans to replace equipment once the life span has expired.

TS-12 The Contractor shall use a standard approach to measuring overall real world compute to set a universally applicable benchmark on to systems that may vary in component architecture.

TS-13 The Contractor shall ensure that devices delivered under the Contract are “Compatible with Windows 7”.

TS-14 The Contractor shall ensure that all of the components used in the devices which interact with the operating system are listed in the Microsoft Windows Compatible Products List (<http://sysdev.microsoft.com/en-GB/hardware/lpl/>) as “Windows 7” certification.

TS-15 The Contractor shall ensure that devices delivered under the Contract are “Windows 10 Compatible”.

TS-16 The Contractor shall ensure that all of the components used in the devices which interact with the operating system are listed in the Microsoft Windows Compatible Products List (<http://sysdev.microsoft.com/en-GB/hardware/lpl/>) as “Certified for Microsoft Windows 10 Client family x86 / x64”.

TS-17 In the event of any device failing or performing below the specified level due to lack of sufficient compatibility with the operating system the Contractor shall replace that device with another one meeting that requirement at no additional cost.

TS-18 The Contractor shall provide connection cables fit for use at each of local sites – by default: CEE 7/7 for power supply, with the exception of:

No.	Site	Power plug
1	ACT (Norfolk, USA)	NEMA 5-15
2	MARCOM (Northwood, GBR)	BS 1363 (Type G, with a fuse)

TS-19 Local keyboard layouts - By default the Contractor shall provide devices equipped with keyboards using US layout. Should there be a need for an alternative keyboard layout, the Purchaser will request it in the respective Purchase Order.

TS-20 The Contractor shall provide devices with the requested alternative keyboard layout at no additional cost if requested. The Purchaser will limit its requirement to alternative layouts used by the NATO member nations only.

TS-21 The Contractor shall ship the devices with the software required for them to operate along with required software licences at no additional cost.

A.1 Standard User Equipment

TS-22 The equipment in this category includes:

1. Desktop PC
2. Workstation
3. Laptop
4. Monitor
5. Network Scanner
6. Multi-Function Device
7. Plotter
8. DVD Robot

TS-23 The equipment in this category shall be sourced from mainstream brand manufacturers that have support and warranty channels that cover the geographical scope of this Contract and include, but are not limited to: HP, Dell, Lenovo, Allied Telesys etc. in order to replace existing branded equipment.

A.1.1 Desktop PC

#	Item	Specification
1.	Form Factor	Small Form Factor
2.	Performance	BAPCo SysMark 2014, Office Productivity of 1540
3.	Processor	Processing Cores: 4, including: 64bit OS support (CMPXCHG16b, PrefetchW and LAHF/SAHF)
4.	Security	Trusted Platform Module (TPM) 2.0 (or later) chip on the motherboard AES New Instructions (AES-NI), SecureKey, BIOS Guard, OS Guard or equivalent PnP and BIOS setup/boot password/system configuration protection Kensington lock slot Chassis lock with a master key
5.	Graphics	Performance: at least 850 @ 1024x600 in ComputeMark v2.1; Triple Display Capable (1920x1200@60Hz on each display minimum); Compatible with DirectX 12 (Feature Level 12.0) and OpenGL 4.4 ; Hardware-accelerated decoding of media using HEVC, H264, VP9; (mini)Display Port or HDMI 1.4HDMI 2.0 video output for external display
6.	Memory	8GB expandable to 16GB
7.	Storage	Solid State capacity: 240 GB, performance: 450MB/sec sequential read and 250MB/sec sequential write, durability: 72TBW, supported functions: TCG Opal, IEEE-1667, FDE AES-256
8.	I/O Ports	2x USB 3.0 ports and 4x USB 2.0 ports (minimum 2x USB ports shall be accessible from the front), 2x DisplayPort 1.2 ports (Dual monitor support, modes of operation

#	Item	Specification
		including multi-monitor clone and span), 1x Audio line-in / microphone port, 1x Audio line-out / headphone port both accessible from the front
9.	Network	On-board Gigabit Ethernet controller 1000Base-T (RJ-45 interface port), and 100Base-FX or 1000Base-SX, LC connector, Wake-On-LAN, PXE
10.	Appearance	Neutral colour (black, carbon, silver, gray, beige)
11.	Sound	Integrated full duplex sound card
12.	Power supply and cords	1x Power adapter and cord (according to local requirements)
13.	Drive Bays	1x internal 2.5-inch bay, 1x ready to use external 3.5-inch or 1 x 5.25-inch bay
14.	Expansion Slots	Internal 1x PCIe x16 Gen3 slot, 1x PCIe x4 Gen2 slot, low profile
15.	Keyboard	HP USB English Keyboard Qwerty US with Euro Key
16.	Mouse	HP USB 1000dpi Laser Mouse
17.	Security	Trusted Platform Module (TPM) 2.0 chip on the motherboard AES New Instructions (AES-NI), SecureKey, BIOS Guard, OS Guard or equivalent PnP and BIOS setup/boot password/system configuration protection Kensington lock slot Chassis lock
18.	OS	Microsoft Windows 10 Pro OEM
19.	ILS	Transport, configuration, testing and installing NCIA software image plus reporting
20.	Weight	7kg
21.	Dimension	Height: 15cm, Width: 30cm, Depth: 40cm
<i>Options:</i>		
22.	Drive cage	SSD Cage with Lock for 2,5" SATA Disk

A.1.2 Workstation

#	Item	Specification
1.	Form Factor	Tower Form Factor
2.	Performance	BAPCo SysMark 2014, Office Productivity of 1700
3.	Processor	Processing Cores: 4 or more Threads: 8 or more Including: 64bit OS support (CMPXCHG16b, PrefetchW and LAHF/SAHF)
4.	Security	Trusted Platform Module (TPM) 2.0 (or later) chip on the motherboard AES New Instructions (AES-NI), SecureKey, BIOS Guard, OS Guard or equivalent PnP and BIOS setup/boot password/system configuration protection Kensington lock slot
5.	Remote management	UEFI v2.3.1 or higher, Active Management Technology
6.	Graphics	GPU compliant to DirectX 12 Feature Level 12_0/ OpenGL 4.4, Floating-point performance: 2.3 TFlops/sec for single precision Triple Display Capable (1920x1080 Full HD at 60Hz on each display) DVI and DisplayPort 1.2 / HDMI video outputs sRGB coverage of >=70% Performance of 40 in CompuBench 1.5 Face Detection
7.	Memory	16GB expandable to at least 64GB
8.	Storage	Solid State capacity: 240 GB, performance: 450MB/sec sequential read and 250MB/sec sequential write, durability: 180TBW, supported functions: TCG Opal, IEEE-1667, FDE AES-256
9.	I/O Ports	2x front and 4x back USB 3.x ports
10.	Network	On-board Gigabit Ethernet controller 1000Base-T (RJ-45 interface port), and 100Base-FX or ⁱⁱ 1000Base-SX, LC connector, Wake-On-LAN, PXE
11.	Appearance	Neutral colour (black, carbon, silver, gray, beige)
12.	Sound	Integrated full duplex sound card
13.	Power supply and cords	1x Power adapter and cord (according to local requirements)
14.	Keyboard	USB English Keyboard Qwerty US with Euro Key
15.	Mouse	USB Laser Mouse
16.	OS	MS Windows 10 Pro OEM
17.	ILS	Transport, configuration, testing and installing NCIA software image plus reporting
18.	Weight	10kg
19.	Dimension	Height: 45cm, Width: 20cm, Depth: 40cm

Options:

20.	Drive cage	SSD Cage with Lock for 2,5" SATA Disk
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A.1.3 Laptop

#	Item	Specification
1.	Form Factor	Clamshell Ultrabook Laptop (Intel Ultrabook certified)
2.	Performance	BAPCo MobileMark 2014, Office Productivity of 1540 BAPCo MobileMark 2014; Battery life of 480
3.	Processor	Processing Cores: 2 or more Including: 64bit OS support (CMPXCHG16b, PrefetchW and LAHF/SAHF)
4.	Security	Trusted Platform Module (TPM) 2.0 chip on the motherboard AES New Instructions (AES-NI), SecureKey, BIOS Guard, OS Guard or equivalent PnP and BIOS setup/boot password/system configuration protection Kensington lock socket
5.	Memory	8GB, expandable to 16GB
6.	Storage	Solid State capacity: 240 GB, performance: 450MB/sec sequential read and 250MB/sec sequential write, durability: 72TBW, supported functions: TCG Opal, IEEE-1667, FDE AES-256, HIPM+DIPM and DevSleep
7.	Graphics	Performance: at least 850 @ 1024x600 in ComputeMark v2.1; Triple Display Capable (1920x1200@60Hz on each display minimum); Compatible with DirectX 12 (Feature Level 12.0) and OpenGL 4.4 ; Hardware-accelerated decoding of media using HEVC, H264, VP9; (mini)Display Port or HDMI 1.4 video output for external display; Wireless Display / Miracast support for up to 1080p30.
8.	Display	13.3" to 14" diagonal size; 1920 x 1080 Full HD; 10-point multi-touch screen; Contrast 700:1; Brightness 300 nits (auto adjustable); sRGB coverage of >=70%.
9.	Camera	Built-in HD WebCam (light sensitive) 720p resolution with microphone and noise cancellation
10.	Ports	3x USB 3.x ports Integrated Smartcard reader (PIV compliant) TRRS 3.5mm mini-jack connector Integrated physical switch for radios (e.g., WIFI, Bluetooth)
11.	Network	On-board 1000Base-T (10/100/1000 NIC) RJ-45 interface port, PXE support
12.	Wireless Connectivity	Wireless LAN adapter 802.11a/b/g/n/ac 2x2 MU-MIMO;

#	Item	Specification
		integrated Bluetooth 4.2 LE Wireless Card
13.	Keyboard	Integrated spill-resistant keyboard QWERTY US layout with EURO key and low-profile keys, back-lit
14.	Touchpad	Integrated touch pad with multi-touch control and scroll functions, supports Microsoft Windows Precision Touchpad Implementation
15.	OS	Microsoft Windows 10 Pro OEM
16.	Appearance	Neutral colour (black, carbon, silver, gray, beige)
17.	Case	1x Notebook sleeve
18.	Power	2x Power adapter and cord (auto sensing 110/230V)
19.	ILS	Transport, configuration, testing plus reporting
20.	Weight	1.8kg with primary battery
21.	Dimension	Height: 2.4cm, Width: 34cm, Depth: 24cm

Options:

22.	Docking Station	<p>Interface to Client Device: USB 3.1 (Type C) with Power Delivery</p> <p>Display Interfaces: 2x Display outputs (DisplayPort 1.2 or HDMI 1.4)</p> <p>Other Interfaces:</p> <ul style="list-style-type: none"> • 1 x TRRS 3.5mm mini-jack connector • 1x RJ45 port • 3x additional USB 3.x ports • 1x USB <p>Weight: 1.5 Kg without power supply</p> <p>Dimensions: 30cm x 8cm x 30cm</p>
23.	Mobile Data Transmission	<p>3GPP Release 10-compatible modem supporting:</p> <ul style="list-style-type: none"> • UMTS (HSPA+, DC-HSPA) - 850/900/1700/1900/2100 MHz, • LTE-A (Cat. 4) - FDD Band 1-5/7/8/17/20
24.	Media Converter to 100Base-FX	Media convertor 10/100/1000Base-T RJ45 to 100Base-FX SC, switching power adapter
25.	Media Converter to 1000Base-SX	Media convertor 10/100/1000Base-T RJ45 to 1000Base-SX LC, switching power adapter, chassis mountable

A.1.4 Monitor

#	Item	Specification
1.	Form Factor	24 inch LCD monitor
2.	Aspect Ratio	16:10 Widescreen
3.	Panel Type	IPS (In-Plane Switching) or PLS
4.	Surface	Anti-Glare with 3H hardness hard coating
5.	Display	1920 x 1200 native resolution, response time 8ms, pixel pitch 0,27mm x 0,27mm, brightness 250 cd/m2, contrast ratio 300:1, displayable colours 16.7 million

#	Item	Specification
6.	Video Connectivity	1x Digital Visual Interface connector (DVI-D) with HDCP, 1x DisplayPort (DP) 1.2 port with HDCP 1.4, 1x Video Graphics Array (VGA)
7.	Build-in USB Hub	1x USB 2.0 upstream port, 2x USB 2.0 downstream ports accessible from the bottom and 2x USB 2.0 downstream ports accessible from the side
8.	Sound	Detachable multimedia Sound-bar mount option (sound bar not provided)
9.	Stand and mount	Height-adjustable stand, pivot rotation 90 degree, tilt and swivel option, VESA mount compatible
10.	Cables	DisplayPort to DisplayPort 3m cable HBR2 Power supply cable
11.	Security	Security lock slot
12.	ILS	Transport, configuration, testing plus reporting

A.1.5 Network Scanner

#	Item	Specification
1.	Type	A0 Colour Scanner
2.	Resolution	Optical resolution: 508dpi Max resolution: 9600dpi
3.	Scanning size	Scan width: 54 inch (1372-1067 mm)
4.	Accuracy	0.1% +/- 1 pixel
5.	Graytone and B/W Speed	At 200dpi - 30,48cm/sec
6.	RGB (24bit)	At 200dpi - 7,62cm/sec
7.	Drivers	TWAIN / Windows 7/10
8.	File formats	TIF, JPG, PDF, DWF, CALS, BMP, JPEG-2000(JP2), JPEG2000 Extended(JPX), TIF-G3, TIF-G4
9.	Network	TCP/IP/SMP,LPD,SNMP support
10.	Interfaces	1000Base-T RJ45
11.	Included Options	- Scan and archive software - Floor Stand

A.1.6 Multi-Function Device

#	Item	Specification
1.	Type	Multi-Function Device – printing, scanning, copying

#	Item	Specification
2.	Scan resolution	Colour: Up to 600x1200 x 1200x600 dpi
3.	Printing and scanning size	A3 (printing), A4 (scanning)
4.	Print resolution	Colour: Up to 1200 x 1200 dpi
5.	Paper capacity	3 x trays supporting A3 and A4, 500 sheets each
6.	PDL	PCL5E/C, PCL6, XPS, PostScript
7.	Fonts	PCL/PS
8.	Speed	A3 colour: Up to 22 ppm A4 duplex: Up to 43 ppm
9.	Network	1 x Gigabit Ethernet 10/100/1000T; TCP/IP/SMP,LPD,SNMP support
10.	Features	<ul style="list-style-type: none"> - Single pass - Scan to email - Multi-copy feature - Auto duplex - Access Control at Printer

A.1.7 Plotter

#	Item	Specification
1.	Printing size	A0 Plotter, supporting 11-44inch rolls
2.	Print resolution	2400x1200 optimized
3.	Paper capacity	2 rolls/smart roll switching
4.	PDL	PostScript/Tiff/JPEG/CALS/PCL
5.	Fonts	PCL/PS
6.	Speed	570ft/hour
7.	Interfaces	1000Base-T RJ45, USB 2.0
8.	Features	Finished output handling

A.1.8 DVD Robot – R-QUEST Technologies NS2100i

#	Item	Specification
1.	Features	Bulk CD/DVD burning and printing labels is an automated way through, the set comprises: <ul style="list-style-type: none"> • NS2100i

#	Item	Specification
		<ul style="list-style-type: none"> • 5 simultaneous users license • Ink-Print Cartridges (CMYK) • Power Supply • Network Cable
2.	Disc Capacity	150
3.	Number of Drives	2
4.	Disc Recorders	DVD±R/CD-R
5.	Recordable Formats	CD: CD-R, CD-RW, CD-Audio (CD-DA), Video-CD , MP3 to CD-Audio and most other industry-standard CD formats DVD: DVD±R, DVD±RW, DVD±DL
6.	Print Method	Thermal inkjet
7-6.	Print Resolution	4800-400 dpi
8-7.	Data Interface	1000Base-T, RJ45
9-8.	Power	100-240VAC

A.2 Staging Services

TS-24 The Contractor shall perform staging services for the ordered equipment at his premises according to the services when requested through a Task Order.

TS-25 The Contractor shall guarantee that changes made to the subject equipment do not invalidate the manufacturer’s warranty.

A.2.1 Labelling with Purchaser asset tags using provided ranges only

TS-26 Within 5 business days from placing a task order the Contractor shall request from the Purchaser:

- a. an asset tag example,
- b. guidelines on placing the asset tags and
- c. the ranges of identification numbers per type of equipment.

The Purchaser will provide this information within 5 business days.

TS-27 The Contractor shall produce the asset tags using the example and the ranges provided and place them on the subject equipment in line with the guidelines provided.

TS-28 The Contractor shall submit the MDS document with equipment serial numbers associated to asset tag numbers ahead of delivery.

A.2.2 Setting up BIOS/UEFI

TS-29 Within 5 business days from placing a task order for Desktop PCs or Laptops the Contractor shall provide the Purchaser with a complete list of the device's BIOS/UEFI settings and request from the Purchaser a list of settings to be pre-configured on these devices. The Purchaser will provide this information within 5 business days.

TS-30 The Contractor shall deploy the agreed BIOS/UEFI on the subject computers.

TS-31 The Contractor shall submit the MDS document with equipment serial numbers and clear confirmation for each computer that the agreed BIOS/UEFI settings have been deployed.

A.2.3 Power-on test

TS-32 The Contractor shall connect and power the device on to verify whether it operates correctly at his facilities.

TS-33 If a computer is to be equipped with an OS-image then the power on test shall be prior to software deployment.

TS-34 Should the tested equipment fail the power on test, the Contractor shall replace the equipment with new equipment at no additional cost.

TS-35 The Contractor shall submit the MDS document with equipment serial numbers and clear confirmation for each device confirming that the power on test was passed.

A.2.4 Deploying Purchaser-provided OS image

TS-36 Within 5 business days from placing a task order for Desktop PCs or Laptops the Contractor shall request from the Purchaser an OS image to be deployed on these devices. The Purchaser will provide this material within 5 business days.

TS-37 The Contractor shall deploy the provided image and perform preparation activities using Contractor-furnished tools on the subject computers.

TS-38 The Contractor shall submit the MDS document with equipment serial numbers and clear confirmation for each computer that the OS image has been deployed.

A.2.5 Installation of additional options in Desktop PC (NIC, Drive Cage~~Disk-tray~~)

TS-39 The Contractor shall install the Network Interface Card selected in the Task Order in the Desktop PCs ordered at no additional cost.

TS-40 If the Drive Cage option has been ordered, the Contractor shall install the Drive Cage in the Desktop PC Chassis, put the internal disk in that cage and test the Desktop PC to confirm that it operates correctly.

TS-41 The Contractor shall submit the MDS document with equipment serial numbers and clear confirmation for each computer that the OS image has been deployed.

A.2.6 Securing equipment in transport using seals on boxes

TS-42 The Contractor shall secure all parcels with appropriate seals preventing unauthorised access or tampering with the equipment being shipped to Purchaser facilities.

TS-43 The Contractor shall inspect these seals at the delivery destination and present an inspection protocol to Purchaser confirming that the seals have not been broken.

TS-44 If the seals are broken in transport the Contractor shall inspect the equipment and provide evidence to Purchaser that the equipment has not been tampered with.

TS-45 If the equipment has been tampered with the Contractor shall replace this equipment with new equipment at no additional cost within 14 days from the original shipment.

ⁱ The type of interface to be used will be indicated in the Purchase Order

ⁱ The type of interface to be used will be indicated in the Purchase Order