

# **RFQ-CO-115062-BITR**

## **Provision of Client Devices for Balkans IT Refresh**



### **BOOK II, PART IV – STATEMENT OF WORK**

## **PART IV – STATEMENT OF WORK**

### **1. INTRODUCTION**

**1.1.** This document details Contractor's obligations with respect to the delivery of hardware under this Contract.

**1.2.** The purpose of this Statement of Work (SOW) is to describe the requirements for Balkans IT Refresh equipment to be provided.

**1.3.** The contract consists of a firm fixed-price framework for quantities of hardware.

### **2. SCOPE**

**2.1.** This Contract covers the provision and delivery of all items detailed in the Statement of Work and the SSS in accordance with the terms and conditions of the Contract.

**2.2.** The locations identified for equipment deliveries for this contract is: KFOR Film City (Pristina, Kosovo) and NATO HQ Sa (Sarajevo, Bosnia).

### **3. CONTRACTOR TASKS**

**3.1.** The Contractor shall deliver all hardware as specified in Annex A System Requirements Specifications(SRS) to this SOW and in the Schedule of Supplies and Services (SSS) to the specified destination.

**3.2.** 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. PROJECT SCHEDULE**

**4.1.** The contractor shall supply all items to the specified location in accordance with the SSS and the SOW.

### **5. TECHNICAL REQUIREMENTS**

**5.1.** The technical requirements of the hardware to be provided under this Contract are described in Annex A SRS.

#### **5.2. Technical Specifications (datasheets)**

**5.2.1.** The Contractor shall produce technical specifications of all equipment to be furnished under the Contract.

**5.2.2.** The technical specifications shall be provided in tabular form in Excel Workbook files, one for each type of equipment, and

shall state at minimum all characteristics listed in paragraph 9 for the given type.

5.2.3. The manufactures/vendor datasheets that describe the technical specifications shall be provided as PDF files, one for each type of equipment, and shall state at minimum all characteristics listed in 9 ANNEX A SRS for the given type.

### **5.3. COTS Manuals**

5.3.1. 2 weeks prior any equipment is delivered the Contractor shall deliver an electronic copy of all COTS manuals for each type of equipment or accessory to be provided under the Contract, via email to the Purchaser's POC's.

5.3.2. Upon a change of a product model or a software upgrade the Contractor shall re-submit an updated COTS documentation package.

5.3.3. When COTS manuals are updated, the Contractor shall provide the relevant update for each manual delivered under the Contract.

### **5.4. Quick Start Guides**

5.4.1. Quick start guides will be required for users receiveing new devices to enable the users to connect them, power them up, engage with the operating system, maintain (e.g., keep the keyboard, screen clean) and re-charge.

5.4.2. The Contractor shall provide a quick start guide in hard copy for each piece of equipment delivered explaining how to handle the equipment (basic introduction to the physical characteristics of the device).

### **5.5. Generic Technology Requirements**

5.5.1. *Generic technology requirements in this section apply to all client equipment and accessories.*

5.5.2. Environmental and Green IT

5.5.2.1. All devices proposed by the Contractor shall be optimized for energy efficiency. The products should carry the Energy Star 5.0 qualification to confirm sufficient energy efficiency.

5.5.3. All equipment shall meet EU Restriction of Hazardous Substances (RoHS 2) directives, 2011/65/EU and 2015/863 (ROHS 2 amendment).

5.5.4. Standards

5.5.5. All client equipment and accessories delivered by the Contractor shall conform to CE and / or FCC standards.

5.5.6. Equipment shall not emit continuous noise exceeding LpAm = 35 dBA.

5.5.7. All primary power cables shall have a minimum length of 3 meters (plug to device).

**5.6. This paragraph has intentionally been left blank**

**5.7. Standardisation and Interoperability**

- 5.7.1. The components in the Contractor's solution that perform the same functions shall be of the same brand and model.
- 5.7.2. All physical interfaces shall be based on open industry standards.
- 5.7.3. Any proprietary systems shall include fully compatible open standard interfaces with the exception of the Smart Card Reader
- 5.7.4. As a part of the verification step the Purchaser will check if the provided equipment is certified against:
- 5.7.5. SDIP 27/2 appropriate level (applicable to TEMPEST equipment);
- 5.7.6. The verification will review a written certificate issued for a device or a series of the given type of a device along by the relevant NATO member national certification authority with seals status check-up.
- 5.7.7. The systems delivered by the Contractor shall be Microsoft Windows 10 OS compatible (applicable to computers);
- 5.7.8. The verification will review a written statement of the equipment manufacturer confirming the achievement of the compatibility qualification from the operating system provider (e.g. Windows 10 compatible qualification by Microsoft).
- 5.7.9. The equipment provided by the Contractor shall pass the Benchmarking tools tests as described in Annex A SRS (applicable to computers).
- 5.7.10. After the delivery of the equipment the Purchaser will verify the performance of sample computers in end use environment.
- 5.7.11. In event the Purchaser's verification proves that the equipment provided under this Contract does not meet the required certification(e.g TEMPEST) the Contractor shall replace it with a certified one at no additional cost to the Purchaser.

**6. INTEGRATED LOGISTIC SUPPORT****6.1. INTRODUCTION**

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

**6.2. SHIPPING AND TRANSPORTATION**

- 6.2.1. All goods covered under the Contract, including items being returned after warranty repair, shall be shipped to KFOR Film City (Pristina, Kosovo) and NATO HQ Sa (Sarajevo, Bosnia) at the cost of the Contractor.
- 6.2.2. All goods covered under the Contract, including items being returned after warranty repair, shall be shipped at the expense of the Contractor Delivered Duty Paid (DDP) to the address specified

by the Purchaser in accordance with current INCOTERMS published by the International Chamber of Commerce.

6.2.3. Prior to shipments containing Lithium cells or batteries, the Contractor shall obtain a test summary/certificate in accordance with the test procedure described in the "UN Manual of Tests and Criteria, (Sub-Section 38.3)".

6.2.4. A copy of the test summary/certificate shall be provided together with the Notice of Shipment as laid out in 6.5.

6.2.5. The Contractor shall be liable for any storage, damage or any other charges involved in such transportation of goods prior to the actual acceptance of such supplies at destination.

6.2.6. The Purchaser will not accept responsibility and/or ownership of the goods before successful inspection and acceptance is complete.

6.2.7. All shipments shall be executed in close co-ordination with the Purchaser's PoC for logistics and the Purchaser's PoC for delivery acceptance at final destination.

6.2.8. The NCIA Point of Contact (PoC) for all shipment instruction and shipment requests is:

Mr. Heinz Mueller-Nordmann (NCIA Mons)/ILS Office

Email: [Heinz.Mueller-Nordmann@ncia.nato.int](mailto:Heinz.Mueller-Nordmann@ncia.nato.int)

Phone: +32 655446160

6.2.9. 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.

6.2.10. The Contractor shall nominate a PoC in charge of logistics that will be required to liaise and inform the Purchaser's PoC on all matters concerning the orders.

6.2.11. The Contractor shall be responsible for all handling of pallets until the delivery is handed over and accepted by the Purchaser, without prejudice to Purchaser's inspection and acceptance process

6.2.12. The Contractor shall organise and operate any handling equipment required to unload the equipment in the Purchaser warehouse or building.

6.2.13. The Contractor PoC shall coordinate with the Purchaser PoC for the access to the site where equipment will be delivered.

### **6.3. PRESERVATION AND PACKAGING**

6.3.1. 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.

6.3.2. 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.

6.3.3. 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
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

#### 6.4. CUSTOMS FORMS 302

6.4.1. 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. A template of a 302 request and handling instructions can be obtained from the Purchaser.

6.4.2. 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

6.4.3. 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.

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

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

6.4.6. 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.

6.4.7. 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.

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

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

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

6.4.11. It shall be noted that the customs 302 documents have to be originals duly signed and stamped by the NCI Agency. The 302 is a customs declaration to enable applicable authorities to permit the import or export of NATO consignments free of duties, taxes and excise charges.

6.4.12. Upon delivery of the equipment the Contractor shall return one copy (copy nr.2) of the original 302 customs form with the field "Certificat de Reception" duly signed and stamped by the receiver. The POCs to return this copy is stated on the 302 form.

## **6.5. NOTICE OF SHIPMENT**

6.5.1. Two (2) weeks prior to the delivery of any shipment of supplies, the Contractor shall provide a Notice of Shipment to the Purchaser's ILS Office and to such other persons 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)

## **6.6. INVENTORY**

6.6.1. The Contractor shall provide the full and complete inventory/Communications and Information System Data Sheet (CIDS) former called (Material Data Sheet (MDS)) of all items



(hardware, software and licences) 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.
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". Serialised items shall only have a quantity of 1.
Order Unit	Order Unit (text-2 digits). Unit under which the item is sold, e.g. each, set, meter, etc.
Serialized Item 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.
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.
Technical integrity and protection from malicious tampering (see 8.3)	In this field, the Contractor shall confirm per item, that the items to be delivered have been checked for technical integrity and protected from malicious tampering.
Supplier identity (see 8.4)	The Contractor shall identify per item, the identity of the supplier of the item and the identities of suppliers of major components thereof.

6.6.2. The Contractor may request an electronic version of the CIDS (former MDS) template to be provided by the Purchaser at EDC.

## **6.7. TECHNICAL DOCUMENTATION**

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

6.7.2. Each deliverable shall be accompanied with its appropriate TEMPEST level certificate. The certificate shall be issued by: either the National Security Authority (NSA) or a SDIP-55 certified TEMPEST testing body accredited by the NSA

6.7.3. All documentation shall be in the English language.

## **6.8. WARRANTY & SUPPORT**

6.8.1. The Contractor shall cover all devices procured under this contract with a minimum warranty of 1 (one) year.

6.8.2. The Warranty shall start at the date of Purchaser acceptance of the equipment at the destination sites.

6.8.3. The support/warranty shall include cost of parts and repair or exchange labor.

6.8.4. The Contractor shall provide a Warranty Guide document detailing warranty processes, handling instructions, including help-desk or other Point of Contact information, to be contacted in case of a warranty claim for Purchaser approval at least 1 (one) month prior to the start of any deliveries. The warranty shall include standard technical telephone and email support provided directly by the Contractor. The Purchaser may contact the OEMs directly, but overall responsibility for the successful execution of the warranty shall belong to the Contractor. Therefore, Contractor shall have the support PoCs available within their organization for all the warranty

requests regarding all types of hardware, software and workmanship provided under this contract.

6.8.5. 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.

6.8.6. 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. The Contractor shall cascade this requirement to their suppliers to ensure that during warranty execution all parties involved are sufficiently informed.

6.8.7. 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. The Contractor shall propose such items for Purchaser approval to ensure the quality standards and only upon approval they shall provide the alternatives.

## **6.9. LABELLING AND MARKING**

6.9.1. Labelling and marking shall be compliant with STANAG 2290 "NATO Unique Identification of items" and STANAG 4281 "NATO Standard Marking for Shipment and Storage" unless specified differently in the requirements of this Contract.

6.9.2. The Contractor shall produce labels and label all items furnished under the Contract with the true manufacturer's: Enterprise Identifier (CAGE or NCAGE code), part number and serial number to ensure proper and quick identification of delivered items.

6.9.3. Markings shall be applied by a method that provides a legible, durable and non-fading result capable of withstanding normal exposure to the environment and envisaged handling.

6.9.4. Whenever practicable, the label shall be applied in such a manner which allows it to be visible after installation.

## **7. QUALITY ASSURANCE**

7.1. The Bidder 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.

**7.2.** The Contractor shall ensure that the goods meet the following level of quality:

- All delivered supplies are compliant with the approved technical specifications as per Annex A SRS;
- All delivered supplies are of the requested type and quantity;
- All delivered goods are not damaged or defective.

**7.3.** 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.

## **8. SUPPLY CHAIN SECURITY**

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

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

**8.3.** The Contractor shall confirm in the CIDS (former MDS), per item, that the items to be delivered have been checked for technical integrity and protected from malicious tampering.

**8.4.** The Contractor shall also identify in the CIDS (former MDS), per item, the identity of the supplier of the item and the identities of suppliers of major components thereof.

**8.5.** 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.

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

**8.7.** If requested, the Contractor shall provide a Supply Chain Security document to explain their end-to-end supply chain processes and all parties involved in the supply chain from original manufacturer until the delivery at Purchaser facility.

## **9. Annex A System Requirements Specifications(SRS)**

### **9.1. General**

9.1.1. The equipment provided under this Contract shall meet or exceed the requirements identified herein for each respective Contract Line Item.

9.1.2. The small items (connection cables, power cables or any type of connectors used in the assembly) and additional elements which were not asked specifically by the Purchaser but required for the consistency of the solution will be provided by the Contractor. The type and short description of these additional proposed units will be summarized in the relevant column for each main hardware component. The cost of these items will be accordingly rolled to the Unit Price column of main component.

9.1.3. All computer equipment provided under this Contract shall meet or exceed the following common requirements:

9.1.4. Be identified on the Microsoft Hardware Compatibility List and where possible display a "Designed for Windows" logo.

9.1.5. Be equipped with dual auto-sensing (100-240VAC), hot pluggable power supplies and local power cords.

9.1.6. Client equipment shall have the boot from CD/DVD, USB or Floppy Disk (FDD) disabled.

9.1.7. All equipment provided as part of the contract and marked as "TEMPEST Level C and B" shall conform TEMPEST Level C and B standards as specified in the NATO TEMPEST Standard SDIP-27/2. The Contractor shall provide the "SDIP-27 Level C and B TEMPEST" Certificate for each of the specified items. The certificate shall be issued by: either the National Security Authority (NSA) or a SDIP-55 certified TEMPEST testing body accredited by the NSA, in which case documentation shall be provided with the technical proposal proving that the testing body (the Contractor or a clearly identified subcontractor) has the authority from the National Security Authority to provide this specific TEMPEST certification. Furthermore, the equipment may be subject to testing to validate the manufacturer's specifications.

9.1.8. Equipment shall not emit continuous noise exceeding  $L_{pAm} = 35$  dBA.

9.1.9. All primary power cables shall have a minimum length of 3 meters (plug to device).

9.1.10. All physical interfaces shall be based on open industry standards.

9.1.11. All equipment shall have a Mean Time between Failure (MTBF) that exceeds 5 years life span.

9.1.12. The Equipment shall be provided with connection cables fit for use at each of local sites – by default: CEE 7/7 for power supply.

9.1.13. Local keyboard layouts - By default the keyboard layouts shall be provided with US layout. Should there be a need for an alternative keyboard layout, the Purchaser will request it in the respective Purchase Order.

9.1.14. All computer equipment provided shall meet or exceed the following common requirements:

9.1.15. The devices delivered shall be “Windows 10 Compatible”.

9.1.16. All the components used in the devices which interact with the operating system shall be 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”.

9.1.17. In the event of any device failing or performing below the specified level due to lack of sufficient compatibility with the operating system during Warranty, they shall be replaced with another one meeting that requirement at no additional cost.

9.1.18. The Client equipment and accessories shall be furnished to conform to the technical specifications described in the whole of section 9.

9.1.19. The List of equipment (with detailed requirements stated in paragraphs 9.2.1 to 9.2.6)

#### 9.2.1. Standard workstation (Tempest C):

Item	Minimum Requirements
<b>Performance</b>	BAPCo SysMark 2014, Office Productivity of 1700
<b>Processor</b>	Processing Cores: 4 Threads: 8 64bit OS support (CMPXCHG16b, PrefetchW and LAHF/SAHF)
<b>Security</b>	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
<b>Management</b>	UEFI v2.3.1 or higher, Active Management Technology
<b>Memory</b>	16GB expandable to 64GB
<b>Storage</b>	Solid State capacity: 256 GB, performance: 450MB/sec sequential read and 250MB/sec sequential write, durability: 180TBW, supported functions: TCG Opal, IEEE-1667, FDE AES-256 All drives in removable cages with a key lock
<b>Graphics</b>	Dedicated Graphics card with GPU compliant to DirectX 12 Feature Level 12_0/ OpenGL 4.4, Minimum 2 Gb GDDR3 RAM Dual Display Capable (1920x1080 Full HD at 60Hz on each display) DisplayPort 1.2 / HDMI video outputs sRGB coverage of >=70%
<b>NIC</b>	2711FX-SC-001 100Mbps Fast Ethernet PCI-Express Fiber Adapter Card SC connector with PXE support

Item	Minimum Requirements
	2914SX/SC-001 1000Mbps PCI-Express Fiber Adapter Card SC connector with PXE support 3 meter fiber patch lead ST to SCmulti mode 62.5/125
<b>External bays</b>	Case with an externally accessible bay (removable storage)
<b>Appearance</b>	Tower form factor Neutral colour (black, carbon, silver, gray, beige)
<b>Sound</b>	Integrated full duplex sound card
<b>Power supply and cords</b>	1x Power adapter and cord (according to local requirements in Bosnia and Kosovo) Tempest C UPS with output power capacity 330Watts/550VA minimum
<b>Ports</b>	Front: <ul style="list-style-type: none"> <li>• 2x USB 3.0, 2x USB 2.0</li> <li>• 1x Microphone</li> <li>• 1x Headphone</li> </ul> Rear: <ul style="list-style-type: none"> <li>• 4x USB 3.0, 2x USB 2.0</li> <li>• 1x Audio Line in/Microphone</li> <li>• 1x Audio Line out</li> </ul>
<b>Lock</b>	Kensington lock socket
<b>Mouse</b>	USB wired (1.5m) Optical/laser scroll mouse (5 button minimum)
<b>Keyboard</b>	Wired (1.5 m) USB US QWERTY keyboard
<b>Associated documents</b>	COTS manuals, data sheets, quick start guide
<b>TEMPEST Testing</b>	SDIP-27/2 Level C TEMPEST Certificate of compliance for all devices in the bundle

### 9.2.2. Standard monitor (Tempest C)

Item	Minimum Requirements
<b>Size – diagonal</b>	24" screen, thin bezel
<b>Contrast</b>	1000:1
<b>Brightness</b>	250 nits
<b>Standards</b>	TCO 05
<b>Connections</b>	Dual digital input (using DP 1.2, HDMI or DVI with adapters to the ones not present on the device) <sup>1</sup>
<b>Native refresh rate</b>	60Hz
<b>Horizontal/vertical viewing angle</b>	120 degrees horizontally and vertically
<b>Native resolution</b>	1920x1080 (Full HD minimum) sRGB coverage of >=70% HDCP
<b>Speakers</b>	1W integrated speakers
<b>Tilt and Swivel</b>	Height adjustable stand VESA mount compatible Tilt: +25deg/-5deg minimum

<sup>1</sup> E.g. If the monitor has one HDMI port and one DVI port, it should come with an adapter from HDMI to DisplayPort.



Item	Minimum Requirements
	Swivel: 180deg minimum
<b>Appearance</b>	Neutral colour (black, carbon, silver, gray, beige)
<b>Power supply and cords</b>	1x Power adapter and cord (according to local requirements)
<b>Cabling</b>	1x signal cable to DisplayPort (cable length 1.8m)
<b>Lock</b>	Kensington lock socket
<b>Manuals</b>	COTS manuals as delivered by manufacturer
<b>TEMPEST Testing</b>	SDIP-27/2 Level C TEMPEST Certificate of compliance for all devices in the bundle

### 9.2.3. Cartographic workstation (TEMPEST C)

Item	Minimum Requirements
<b>Performance</b>	BAPCo SysMark 2014, Office Productivity of 1700
<b>Processor</b>	Processing Cores: 10 Including: 64bit OS support (CMPXCHG16b, PrefetchW and LAHF/SAHF)
<b>Security</b>	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
<b>Management</b>	UEFI v2.3.1 or higher, Active Management Technology
<b>Memory</b>	32GB RAM DDR 4, 3200 MHz expandable to 64GB
<b>Storage</b>	Drive 1: Solid State capacity: minimum 256 GB, performance: 450MB/sec sequential read and 250MB/sec sequential write, durability: 180TBW, supported functions: TCG Opal, IEEE-1667, FDE AES-256, NVMe SSD M.2 Drive 2: Solid State capacity: minimum 1 TB, performance: 450MB/sec sequential read and 250MB/sec sequential write, durability: 180TBW, supported functions: TCG Opal, IEEE-1667, FDE AES-256, All drives mounted in removable cages with a key lock
<b>Graphics</b>	Dedicated Graphics card with GPU compliant to DirectX 12 Feature Level 12_0/ OpenGL 4.4, Triple Display Capable (1920x1080 Full HD at 60Hz on each display) DisplayPort 1.2 / HDMI video outputs 4 Gb GDDR 5 RAM sRGB coverage of >=70%
<b>NIC</b>	1000Base-T Ethernet 10000Base-SX(10 Gbps interface) with SC connector Both with PXE support 3 meter fiber patch lead ST to SCmulti mode 62.5/125
<b>External bays</b>	Case with an externally accessible bay (removable storage)
<b>Appearance</b>	Tower, Neutral colour (black, carbon, silver, gray, beige) 2 x External bays 2.5' or 3.5' removable disk trays
<b>Sound</b>	Integrated full duplex sound card
<b>Power supply and cords</b>	1x Power adapter and cord (according to local requirements) Tempest C UPS with output power capacity 330Watts/550VA minimum
<b>Ports</b>	Front:

Item	Minimum Requirements
	<ul style="list-style-type: none"> <li>• 2x front and 4x back 2x USB 3.0, 2x USB 2.0</li> <li>• 1x Microphone</li> <li>• 1x Headphone</li> </ul> Rear: <ul style="list-style-type: none"> <li>• 4x USB 3.0, 2x USB 2.0</li> <li>• 1x Audio Line in/Microphone</li> <li>• 1x Audio Line out</li> </ul>
<b>Lock</b>	Kensington lock socket
<b>Mouse</b>	USB wired (1.5m) Optical/laser scroll mouse (5 button minimum)
<b>Keyboard</b>	Wired (1.5 m) USB US QWERTY keyboard
<b>Manuals</b>	COTS manuals as delivered by manufacturer
<b>TEMPEST Testing</b>	SDIP-27/2 Level C TEMPEST Certificate of compliance for all devices in the bundle

#### 9.2.4. Cartographic monitor (TEMPEST C)

Item	Minimum Requirements
<b>Size – diagonal</b>	27" screen, thin bezel
<b>Contrast</b>	1000:1
<b>Brightness</b>	250 nits
<b>Standards</b>	TCO 05
<b>Connections</b>	Dual digital input (using DP 1.2, HDMI or DVI with adapters to the ones not present on the device) <sup>2</sup>
<b>Native refresh rate</b>	60Hz
<b>Horizontal/vertical viewing angle</b>	120 degrees horizontally and vertically
<b>Native resolution</b>	QHD/WQHD 2560 × 1440 pixels minimum sRGB coverage of ≥70% HDCP
<b>Speakers</b>	1W integrated speakers
<b>Tilt and Swivel</b>	<ul style="list-style-type: none"> <li>• Height-adjustable stand</li> <li>• Tilt: +25deg/-5deg minimum</li> <li>• Swivel: 180deg minimum</li> <li>• VESA mount compatible</li> </ul>
<b>Appearance</b>	Neutral colour (black, carbon, silver, gray, beige)
<b>Power supply and cords</b>	1x Power adapter and cord (according to local requirements)
<b>Cabling</b>	1x signal cable to DisplayPort (cable length 1.8m)
<b>Lock</b>	Kensington lock socket
<b>Manuals</b>	COTS manuals as delivered by manufacturer
<b>TEMPEST Testing</b>	SDIP-27/2 Level C TEMPEST Certificate for all devices in bundle

#### 9.2.5. Standard workstation (Tempest B):

<sup>2</sup> E.g. If the monitor has one HDMI port and one DVI port, it should come with an adapter from HDMI to DisplayPort.

Item	Minimum Requirements
<b>Performance</b>	BAPCo SysMark 2014, Office Productivity of 1700
<b>Processor</b>	Processing Cores: 4 Threads: 8 64bit OS support (CMPXCHG16b, PrefetchW and LAHF/SAHF)
<b>Security</b>	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
<b>Management</b>	UEFI v2.3.1 or higher, Active Management Technology
<b>Memory</b>	16GB expandable to 64GB
<b>Storage</b>	Solid State capacity: 256 GB, performance: 450MB/sec sequential read and 250MB/sec sequential write, durability: 180TBW, supported functions: TCG Opal, IEEE-1667, FDE AES-256 All drives in removable cages with a key lock
<b>Graphics</b>	Dedicated Graphics card with GPU compliant to DirectX 12 Feature Level 12_0/ OpenGL 4.4, Minimum 2 Gb GDDR3 RAM Dual Display Capable (1920x1080 Full HD at 60Hz on each display) DisplayPort 1.2 / HDMI video outputs sRGB coverage of >=70%
<b>NIC</b>	2711FX-SC-001 100Mbps Fast Ethernet PCI-Express Fiber Adapter Card SC connector with PXE support 2914SX/SC-001 1000Mbps PCI-Express Fiber Adapter Card SC connector with PXE support 3 meter fiber patch lead ST to SCmulti mode 62.5/125
<b>External bays</b>	Case with an externally accessible bay (removable storage)
<b>Appearance</b>	Tower form factor Neutral colour (black, carbon, silver, gray, beige)
<b>Sound</b>	Integrated full duplex sound card
<b>Power supply and cords</b>	1x Power adapter and cord (according to local requirements in Bosnia and Kosovo) Tempest C UPS with output power capacity 330Watts/550VA minimum
<b>Ports</b>	Front: <ul style="list-style-type: none"> <li>• 2x USB 3.0, 2x USB 2.0</li> <li>• 1x Microphone</li> <li>• 1x Headphone</li> </ul> Rear: <ul style="list-style-type: none"> <li>• 4x USB 3.0, 2x USB 2.0</li> <li>• 1x Audio Line in/Microphone</li> <li>• 1x Audio Line out</li> </ul>
<b>Lock</b>	Kensington lock socket
<b>Mouse</b>	USB wired (1.5m) Optical/laser scroll mouse (5 button minimum)
<b>Keyboard</b>	Wired (1.5 m) USB US QWERTY keyboard
<b>Manuals</b>	COTS manuals as delivered by manufacturer
<b>TEMPEST Testing</b>	SDIP-27/2 Level B TEMPEST Certificate of compliance for all devices in the bundle

## 9.2.6. Standard monitor (Tempest B)

Item	Minimum Requirements
<b>Size – diagonal</b>	24" screen, thin bezel
<b>Contrast</b>	1000:1
<b>Brightness</b>	250 nits
<b>Standards</b>	TCO 05
<b>Connections</b>	Dual digital input (using DP 1.2, HDMI or DVI with adapters to the ones not present on the device) <sup>3</sup>
<b>Native refresh rate</b>	60Hz
<b>Horizontal/vertical viewing angle</b>	120 degrees horizontally and vertically
<b>Native resolution</b>	1920x1080 (Full HD minimum) sRGB coverage of >=70% HDCP
<b>Speakers</b>	1W integrated speakers
<b>Tilt and Swivel</b>	<ul style="list-style-type: none"> <li>• Height-adjustable stand</li> <li>• Tilt: +25deg/-5deg minimum</li> <li>• Swivel: 180deg minimum</li> <li>• VESA mount compatible</li> </ul>
<b>Appearance</b>	Neutral colour (black, carbon, silver, gray, beige)
<b>Power supply and cords</b>	1x Power adapter and cord (according to local requirements)
<b>Cabling</b>	1x signal cable to DisplayPort (cable length 1.8m)
<b>Lock</b>	Kensington lock socket
<b>Manuals</b>	COTS manuals as delivered by manufacturer
<b>TEMPEST Testing</b>	SDIP-27/2 Level B TEMPEST Certificate for all devices in bundle

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<sup>3</sup> E.g. If the monitor has one HDMI port and one DVI port, it should come with an adapter from HDMI to DisplayPort.