



NCIA/ACQ/2020/7049
10 September 2020

To : All Prospective Bidders

Subject : **IFB-CO-15049-BITI: INVITATION FOR BID
Technical Refresh of Balkans IT Infrastructure, Amendment 7 and Clarification
Requests Release # 7**

Reference(s) A. AC/4-D(2011)0009-FINAL, Alliance Operations and Missions NSIP Procurement Regulations
B. AC/4-D/2261 (1996 Edition), Procedures for International Competitive Bidding
C. AC/4(PP)D/27887-Add1
D. AC/4-DS(2019)0027 (INV)
E. AC/4(PP)D/27806-Add1-Rev1
F. AC/4-DS(2019)0030
G. NCI Agency NOI: NCIA/ACQ/2020/6332 dated 17 February 2020
H. IFB-CO-15049-BITI; NCIA/ACQ/2020/6757 dated 05 June 2020
I. IFB-CO-15049-BITI Amendment 1; NCIA/ACQ/2020/6839 dated 24 June 2020
J. IFB-CO-15049-BITI Amendment 2; NCIA/ACQ/2020/6869 dated 03 July 2020
K. IFB-CO-15049-BITI Amendment 3; NCIA/ACQ/2020/6900 dated 10 July 2020
L. IFB-CO-15049-BITI Clarification Requests Release # 3 NCIA/ACQ/2020/6491 dated 23 July 2020
M. IFB-CO-15049-BITI Clarification Requests Release # 4; NCIA/ACQ/2020/6947dated 27 July 2020
N. IFB-CO-15049-BITI Amendment 4; Clarification Requests Release # 5 NCIA/ACQ/2020/6965 dated 31 July 2020
O. IFB-CO-15049-BITI Amendment 5; Clarification Requests Release # 6 NCIA/ACQ/2020/7002 dated 24 August 2020
P. IFB-CO-15049-BITI Amendment 6; NCIA/ACQ/2020/7033 dated 07 September 2020

Dear Prospective Bidders,

1. The purpose of this Amendment 7 is to:

- a) Publish Release 7 of IFB Bidders' questions and NCI Agency answers.
- b) Issue revised IFB documents (Book I) as follows:

Document	Issue date	Replaced with
Book 1 Bidding Instructions (Amendment 2)	03 July 2020	Book 1 Bidding Instructions (Amendment 3)
Book 2,Part IV, The Statement of Work, Annex A the System Requirement Specification (Amendment 2 Corrigendum version)	24 August 2020	Book 2,Part IV, The Statement of Work, Annex A the System Requirement Specification (Amendment 3 version)





2. PLEASE note that IFB Book I - Bidding Instructions were omitted from reference P in error and are attached here.
3. **CLOSING TIME FOR SUBMISSION OF BIDS IN RESPONSE TO THIS IFB REMAINS 12H00 / 12:00 PM (BRUSSELS TIME) ON 23 OCTOBER 2020. Accordingly the clause 3.2 of Book 1 the Bidding Instructions should be considered amended.**
4. Please find attached the list of Clarification Requests and responses in relation to subject IFB (Release Number 7). Previous responses to Clarification Requests have been greyed out for your convenience.
5. Further clarifications submitted by the Bidders may be responded to however will not extend the bid closing date. Any further follow on clarifications must be received by NCI Agency NLT 5 October 2020. Any clarifications received after that date will be answered at the discretion of NCI Agency. 2020. This decision shall not be a subject for dispute.
6. Except as provided herein, all other terms and conditions of the IFB documents remain unchanged.
7. The NCI Agency point of contact for all information concerning this IFB remains Mr. Graham Hindle, Senior Contracting Officer, who may be reached at IFB-CO-15049-BITI.Communication@ncia.nato.int.
8. Your interest and participation in the NCI Agency's acquisition projects is appreciated.

For the Director of Acquisition

A handwritten signature in black ink, appearing to read 'G. Hindle'.

Graham Hindle
Senior Contracting Officer



**Distribution List for IFB-CO-15049-BIT1
Amendment 7 & Clarification Request Release # 7**

All Nominated Prospective Bidders

NATO Delegations (Attn: Infrastructure Adviser)

Embassies in Brussels (Attn: Commercial Attaché)

Distribution for information:

NATO HQ

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

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

EU Staff Group at SHAPE

EU OHQ OP ALTHEA (EUFOR BiH)

NCI Agency – ALL NATEXs

NCI Agency

ANNEX A: Clarification Requests Response Release No 7

Index no. NCI Agency	IFB Ref.	Bidder's Question	NCIA Answer
1	Document 9 section 3.8.3	In this tender Document 9 section 3.8.3 is stated the requirement for a secure XML labelling guard. Is it planned to replace NATO's own IG (Security Gateway) by one from third parties?	NATO is willing to use any XML-Labeling Guard (XLG) solution that meets or exceeds the requirements in Part IV, Statement of Work, Annex A, Section 3.8.3 and Section A.1.23.
2	09_IFB-CO-15049-BITI_Book II - Part IV SOW Annex A System Requirements Specifications	Technical specification of „A.1.31 A4 Printer“ is part of IBF, but there is no A.1.31 inside Bidding sheet. Could you please specify how many A.1.31 we have to offer?	There is an error in the Bidding Sheets for some CLINs. The SOW Reference for the equipment specified in the SRS is being corrected and will be released in an amendment to the IFB.
3	09_IFB-CO-15049-BITI_Book II - Part IV SOW Annex A System Requirements Specifications	In bidding sheet SOW reference A.1.34 is „A3 Printer Tempest C“, but in IFB reference A.1.34 is “A0 Plotter/Scanner Combi Device + Media Converter”. Could you please equalize the reference numbers in IFB and bidding sheet?	There is an error in the Bidding Sheets for some CLINs. The SOW Reference for the equipment specified in the SRS is being corrected and will be released in an amendment to the IFB.
4	09_IFB-CO-15049-BITI_Book II - Part IV SOW Annex A System Requirements Specifications	Technical specification of „A.1.47 Rugged Notebook“ is part of IBF, but there is no A.1.47 inside Bidding sheet. Could you please specify how many A.1.47 we have to offer?	There is an error in the Bidding Sheets for some CLINs. The SOW Reference for the equipment specified in the SRS is being corrected and will be released in an amendment to the IFB.
5	Part IV, Statement of Work, Annex A, Sect 3.8.3	Please clarify whether NATO intends to use its existing IEG solution or whether NATO is willing to use cross domain solutions (CDS) for data filtering / guard (Security Gateway) and data NATO STANAG 4774/8 labeling (Labeling Service) accredited up to NATO SECRET and listed in the NIAPC?	NATO is willing to use any XML-Labeling Guard (XLG) solution that meets or exceeds the requirements in Part IV, Statement of Work, Annex A, Section 3.8.3 and Section A.1.23.
6	Cover Letter, Attachment B	Cover Letter, Attachment B – The final bidders list is incomplete. Our company for example is not listed. Others are probably as well not listed. Please provide us with an updated list of all approved bidders which is important to partner with other vendors, especially as a product company like ours.	The list is not part of bidding documentation but provided for information. A revised list will be issued in Amendment No 1

7	IaaS DC Architecture Section 2, 2.4	<p>“The IaaS Datacentre Architecture shall provide a high-resiliency virtualised platform using VMware virtualisation technology to host Virtual Machines (VMs) and virtualised storage.”a.</p> <p>NCIAgency has mandated and name branded vSAN throughout the document for the data centre architecture. vSAN is not the only architecture that can accomplish IaaS DC architecture requirement.</p> <p>1. Question: will NATO NCIAgency accept a technically compliant alternative solution instead of vSAN that still uses VMWare virtualization technology to host VMs and Virtualized Storage ?</p> <p>2. Question: vSAN requires 10-30% CPU overhead for storage. Will NCIAgency accept a solution that provides zero CPU overhead that will potentially lower total cost of ownership (TCO)? ?</p> <ul style="list-style-type: none"> • For example, Item 182, page 25 of system requirements document shows the following: (2) 205 vCPU (3) 610 vRAM. The vSAN technology will severely reduce the resource offerings of the requirements listed. <p>3. Question: vSAN only offers a 2 to 1 workload data reduction. Will NCIAgency accept a solution that provides 4:1 workload data reduction or better that will potentially lower total cost of ownership (TCO)?</p> <p>4. Question: vSAN is a shared core HCI solution. Will NCIAgency accept an HCI solution that has separate storage and compute nodes allowing independent scalability of resources?</p> <p>5. Question: Will NCIAgency accept a solution and consider in their evaluation adding merit to a solution that guarantees application performance across all their application workloads?</p> <p>6. Question: vSAN upgrade and expansion offerings are inflexible and severely degrade performance during maintenance changes. Will NCIAgency accept and add merit value to solution that expands and contracts flexibly to allow upgrades and resizing without limits or performance impact?</p> <p>7. Question: vSAN storage services are only available to VM running on the vSAN host. Will NCIAgency accept a more open storage architecture supporting technology and / or model that allows external compute resources to attach to the HCI storage nodes?</p>	<p>The answers to the questions are as follows:</p> <p>Q1. The Agency will not accept an alternate solution to vSAN for this project because of interdependencies with other IT infrastructure and services.</p> <p>Q2. The vSAN CPU overhead is factored into the design and specifications.</p> <p>Q3. A solution that provides a 4:1 workload data reduction is interesting, however the amount of data to be stored on the vSAN will not be large so the lower TCO is expected to be nominal.</p> <p>Q4. No, see answer to question 1.</p> <p>Q5. No, only the equipment specified in the SRS shall be evaluated.</p> <p>Q6. No, performance degradation during maintainance operations is factored into the vSAN solution.</p>
8	n/a	<p>2. FILE SERVICES:</p> <p>a. There is no mention of files services throughout the data center solution description of services</p> <p>1. Question: What is the plan to manage File Services to include CIFS, NFS and SMB protocols?</p>	<p>File services will be provided using a traditional file server. NFS is not a requirement.</p>

9	BACK-Up 3.5 IaaS Component, 3.5.1 Installation	<p>3. BACK-Up 3.5 IaaS Component, 3.5.1 Installation</p> <p>a. NCIAGENCY is requesting the following: "A backup and archiving solution shall be installed using the equipment provided in this contract to provide a two tier backup strategy that provides backup to disk for fast retrieval and backup to tape for long term storage and disaster recovery. To facilitate this two-tier strategy for each site, data will be replicated to the Datacentre sites from the ROBO sites where the data can be stored on tape for disaster recovery purposes and archiving."</p> <p>1. Question: Will NCIAgency permit an alternative solution for long term storage and disaster recovery that removes the costs and burdens involved with Tape?</p> <p>2. Question: Will NCIAgency consider a more modern ILM and Retention policy to address any concerns with replacing tape?</p>	<p>The answers to the questions are as follows:</p> <p>Q1. The Agency appreciates that there are a number of alternate solutions to tape for for long term storage but for the scope of this project the use of tape to store backups and archives for longer periods is sufficient.</p> <p>Q2. Implementation of a modern ILM solution is not the main purpose of this project. ILM and archiving of data for missions is being considered but until these requirements are expressed they will not be included within the scope of this project.</p>
10	Section 3. Technical Services Specification, Item 96	<p>4. Sole Source clarification. Section 3. Technical Services Specification, Item 96</p> <p>a. NATO Writes: "Where named brands or models are specified, NATO requires these specific named products to ensure commonality for logistics, maintenance, and troubleshooting purposes. As these are implemented throughout the NATO networks, this enables the Purchaser to minimize the training, spares, maintenance and logistics costs associated with the networks and provide the best support to the end-user."</p> <p>**...would like to express concern with the statement made in Section 3. Technical Services Specification, Item 96 as it appears to severely limit the opportunity for innovation and competition in this IFB. While Veeam, vSAN, and HPE may be located on some NATO networks, similar solutions from other vendors are equally found if not more prevalent on NATO networks throughout the alliance including but not limited to ANWI, NHQ, NSHQ, SHAPE, NAGSMA AGS, DCIS, etc.</p> <p>1. Question: vSAN locks customers into a VMware only solution. Will NCIAgency accept the use of standard storage protocols (iSCSI) to prevent vendor lock-in?</p> <p>2. Question: vSAN does not allow utilization of existing infrastructure assets such as storage and compute. vSAN also does not allow for future changes to different hypervisors, container based solutions other than what is offered by VMware, thus providing NATO with a vendor lock-in challenge. Will NCIAgency accept a solution that will not only provide VMware hypervisor use today, but also allow for flexibility with other hypervisors and container based solutions outside the VMware product line?</p>	<p>Your concern is noted. The answers to the questions are as follows:</p> <p>Q1. The project will be using standard storage protocols including iSCSI</p> <p>Q2. The Agency has standardised on VMware virtualisation solutions for most of its IT infrastructure projects and has no plans to change solutions or vendors at this time.</p>
11	09_IFB-CO-15049-BITI_Book II - Part IV SOW Annex A System Requirements Specifications	<p>Technical specification of „ A.1.34 A0 Plotter/Scanner Combi Device + Media Converter" states the asked model is DesignJet T830 A0 MFP Plotter but the mentioned model does not fulfil the asked minimum technical requirements. Should the asked model be offered or the model that fulfils the mentioned requirements?</p>	<p>There is an error in the Bidding Sheets for some CLINs. The SOW Reference for the equipment specified in the SRS is being corrected and will be released in an amendment to the IFB.</p>

12	09_IFB-CO-15049-BITI_Book II - Part IV SOW Annex A System Requirements Specifications	Technical specification of „ A.1.35 A0 Plotter + Media Converter” states the asked model is DesignJet T520 A1 Plotter but the mentioned model does not fulfil the asked minimum technical requirements. Should the asked model be offered or the model that fulfils the mentioned requirements?	There is an error in the Bidding Sheets for some CLINs. The SOW Reference for the equipment specified in the SRS is being corrected and will be released in an amendment to the IFB.
13	09_IFB-CO-15049-BITI_Book II - Part IV SOW Annex A System Requirements Specifications	Technical specification of „A.1.46 Laptop (Windows)” is used in document “03_IFB-CO-15049-BITI_Book I - Annex A Bidding Sheets (MS Excel)” as a SOW reference for CLIN 6.1.54. and 6.6.53. In the technical requirements under: - Bullet 8. Wireless Display / Miracast support is asked -Bullet 14. Intel IEEE 802.11 Dual-Band Wireless-AC 9560 Wi-Fi (vPro) is aksed - Bullet 15. Bluetooth 5.0 is asked To achive asked TEMPEST certification asked under CLIN 6.1.54 WiFi and Bluetooth module need to be disabled. Can you check the asked requirements?	Addressed in amendment 2. No Tempest certificate required for laptops. We will keep the requested configuration for the laptop. Any bidding sheet CLIN that does not have TEMPEST Certificate level will be considered COTS regardless of the SRS description.
14	09_IFB-CO-15049-BITI_Book II - Part IV SOW Annex A System Requirements Specifications	Technical specification of „ A.1.47 Rugged Notebook” states that the minimum requirement for: - Bullet 3. Performance BAPCo MobileMark 2014, Office Productivity of 1409 BAPCo MobileMark 2014; Battery life of 1393 Does the battery life of minimum 1393 include also additional batteries?	The offered equipment shall meet the specified requirement using the installed battery(s) without the need to power down the laptop or for the user to take action to change the battery.
15	09_IFB-CO-15049-BITI_Book II - Part IV SOW Annex A System Requirements Specifications 03_IFB-CO-15049-BITI_Book I - Annex A Bidding Sheets (MS Excel)	For certain devices SDIP-27 Level B or C certification is required. Do you require full SDIP-27 certification that includes Radiated Emission (RE) and Conducted Emission (BLC) or is Radiated Emission (RE) enough?	For devices requiring Level C certification, Radiated Emission certification is sufficient. For laptops requiring Level B certification, Radiated Emission and Conducted Emission certification is required. For other devices (i.e. non-laptops) required Level B certification, two options are acceptable: 1) Radiated Emission and Conducted Emission certification; or 2) Radiated Emission certification and a pluggable TEMPEST power filter sourced from a TEMPEST-approved vendor in the NATO Information Assurance Product Catalogue (NIAPC), with CEE 7/7 inlet, and outlets suitable for the TEMPEST B device.
16	09_IFB-CO-15049-BITI_Book II - Part IV SOW Annex A System Requirements Specifications	Technical specification of „ A.1.37 Projector (Large, 5000 Lumens)” states that the minimum requirement for: - Bullet 8. KVM: HDMI KVM (1 output, 4 inputs) Currently available projectors have maximum 1 HDMI output and 3 HDMI inputs. Can an external KVM be offered?	The equipment specification is being corrected and will be released in an amendment to the IFB.

17	09_IFB-CO-15049-BITI_Book II - Part IV SOW Annex A System Requirements Specifications	Technical specification of „ A.1.40 Projectors (small, portable)” states that the minimum requirement for: - Bullet 5. Screen Size – Diagonal 0.78m~7.81m (30.7”~307.5”) Projection size is usually defined in round numbers. Is a projector that offers screen (projection) size 30” - 300” acceptable?	Yes projector that can project a screen size of 30" (76.2 cm) to 300" (762cm) is acceptable. The equipment specification is being corrected and will be released in an amendment to the IFB.
18	09_IFB-CO-15049-BITI_Book II - Part IV SOW Annex A System Requirements Specifications	Technical specification of „ A.1.40 Projectors (small, portable)” states that the minimum requirement for: - Bullet 6. Projection Distance – 1.2m - 10.0m (3.94 ft - 32.81 ft) Manufacturers of projectors define throw ratio which is a number how far from a projection screen a projector needs to be to achieve wanted picture width (D/W). Can you please redefine the asked requirement and define acceptable throw ratio?	Bidders shall offer equipment that meets the provided specifications in the IFB.
19	1.5.2. and 1.5.4. of the Bidding Instructions & Corrigendum 1	how we should understand the point 1.5.2. and 1.5.4. of the Bidding Instructions - if "the overall security classification of the IFB is "NATO UNCLASSIFIED"? Does the declassification cover these paragraphs as well?	the overall security classification of the IFB is "NATO UNCLASSIFIED"
20	Book I - Annex A Bidding Sheets (MS Excel), CLIN Summary 6.1.44; Book II_Part IV SOW Annex A.1.33	Number 6.1.44 in the bidding sheets states an A4 Printer Tempest C but the SOW reference describes an A3 Printer configuration. Please correct this information or provide an explanation. (Same for 6.6.55)	There is an error in the Bidding Sheets for some CLINs. The SOW Reference for the equipment specified in the SRS is being corrected and will be released in an amendment to the IFB.
21	Book I - Annex A Bidding Sheets (MS Excel), CLIN Summary 6.1.45; Book II_Part IV SOW Annex A.1.34	Number 6.1.45 in the bidding sheets states an A3 Printer Tempest C but the SOW reference describes an A0 Plotter/Scanner configuration. Please correct this information or provide an explanation. (Same for 6.6.56)	There is an error in the Bidding Sheets for some CLINs. The SOW Reference for the equipment specified in the SRS is being corrected and will be released in an amendment to the IFB.
22	Book I - Annex A Bidding Sheets (MS Excel), CLIN Summary 6.1.47; Book II_Part IV SOW Annex A.1.34	Number 6.1.47 in the bidding sheets states an A3 Printer Tempest B but the SOW reference describes an A0 Plotter/Scanner configuration. Please correct this information or provide an explanation.	There is an error in the Bidding Sheets for some CLINs. The SOW Reference for the equipment specified in the SRS is being corrected and will be released in an amendment to the IFB.
23	Book I - Annex A Bidding Sheets (MS Excel), CLIN Summary 6.1.48; Book II_Part IV SOW Annex A.1.35	Number 6.1.48 in the bidding sheets states an A0 Plotter/Scanner Combi Device + Media Converters but the SOW reference describes an A0 Plotter + Media Converter configuration. Please correct this information or provide an explanation.	There is an error in the Bidding Sheets for some CLINs. The SOW Reference for the equipment specified in the SRS is being corrected and will be released in an amendment to the IFB.
24	Book I - Annex A Bidding Sheets (MS Excel), CLIN Summary 6.1.49; Book II_Part IV SOW Annex A.1.36	Number 6.1.49 in the bidding sheets states an A0 Plotter + Media Converters 100 Base-SX Tempest C but the SOW reference describes a Digital Sender configuration. Please correct this information or provide an explanation.	There is an error in the Bidding Sheets for some CLINs. The SOW Reference for the equipment specified in the SRS is being corrected and will be released in an amendment to the IFB.

25	Book I - Annex A Bidding Sheets (MS Excel), CLIN Summary 6.1.50; Book II_Part IV SOW Annex A.1.37	Number 6.1.50 in the bidding sheets states a Digital Sender Tempest C but the SOW reference describes a Projector configuration. Please correct this information or provide an explanation.	There is an error in the Bidding Sheets for some CLINs. The SOW Reference for the equipment specified in the SRS is being corrected and will be released in an amendment to the IFB.
26	Book I - Annex A Bidding Sheets (MS Excel), CLIN Summary 6.6.58; Book II_Part IV SOW Annex A.1.38	Number 6.1.45 in the bidding sheets states a Projector Large Tempest C but the SOW reference describes an A4 Printer configuration. Please correct this information or provide an explanation.	There is an error in the Bidding Sheets for some CLINs. The SOW Reference for the equipment specified in the SRS is being corrected and will be released in an amendment to the IFB.
27	Book II_Part IV SOW Annex A.1.31	The A4 Printer can't be found in the Bidding Sheets CLIN Summary. Please correct this information or provide an explanation.	There is an error in the Bidding Sheets for some CLINs. The SOW Reference for the equipment specified in the SRS is being corrected and will be released in an amendment to the IFB.
28	Book II_Part IV SOW Annex A.1.42	The Media Converter Module can't be found in the Bidding Sheets CLIN Summary. Please correct this information or provide an explanation.	There is an error in the Bidding Sheets for some CLINs. The SOW Reference for the equipment specified in the SRS is being corrected and will be released in an amendment to the IFB.
29	Book II_Part IV SOW Annex A.1.43	The Media Converter Module SFP 155 can't be found in the Bidding Sheets CLIN Summary. Please correct this information or provide an explanation.	There is an error in the Bidding Sheets for some CLINs. The SOW Reference for the equipment specified in the SRS is being corrected and will be released in an amendment to the IFB.
30	Book II_Part IV SOW Annex A.1.44	The Media Converter Module SFP 1250 can't be found in the Bidding Sheets CLIN Summary. Please correct this information or provide an explanation.	There is an error in the Bidding Sheets for some CLINs. The SOW Reference for the equipment specified in the SRS is being corrected and will be released in an amendment to the IFB.
31	Book II_Part IV SOW Annex A.1.45	The Media Converter Wallmount Bracket can't be found in the Bidding Sheets CLIN Summary. Please correct this information or provide an explanation.	There is an error in the Bidding Sheets for some CLINs. The SOW Reference for the equipment specified in the SRS is being corrected and will be released in an amendment to the IFB.
32	Book II_Part IV SOW Annex A.1.47	The Rugged Notebook can't be found in the Bidding Sheets CLIN Summary. Please correct this information or provide an explanation.	There is an error in the Bidding Sheets for some CLINs. The SOW Reference for the equipment specified in the SRS is being corrected and will be released in an amendment to the IFB.
33	Book II_Part IV SOW Annex A.1.47	Item 1 and 2 (Brand and Bracket) in the SoW requirements do not seem to belong to this product. Please correct this information or provide an explanation.	There is an error in the Bidding Sheets for some CLINs. The SOW Reference for the equipment specified in the SRS is being corrected and will be released in an amendment to the IFB.
34		Normally a bid compliancy matrix is provided to aid reviewers and bidders in ensuring they proposal has met all the requirements. Will there be one forth coming?	Bidders are to generate
35	Part IV SOW Annex A	The quantity of items is not clear. For example Part IV SOW Annex A, indicates only one Gigaset phone is required, and this occurs throughout the SOW with only one item required. Pricing varies significantly based on the number ordered and in turn impact the quality of the proposal. Will a revised SOW stating clearly the numbers required be forth coming?	The quantities of phones both VoIP (A.1.5) and Analog (A.1.6) have been adjusted to represent quantity of one per item. The actual numbers of phones corresponding to A.1.5 and A.1.6 are laid out in the Schedule of Supplies and Services tables. Please note that some numbers of Gigaset phones are also included in the Analog Voice Gateway specifications A.1.4.1 and A.1.4.2 and these are independent from A.1.6

36	09_IFB-CO-15049-BITI_Book II - Part IV SOW Annex A System Requirements Specifications	<p>3.5.2 Installation (172) The IaaS services shall be installed to provide a Data center (DC) to Remote Office Branch Office (ROBO) architecture (see diagram below) at identified locations and network classifications. ROBO locations will have a minimal IT footprint with a local backup capability, services will also be accessed from the DC and critical data and backups shall be replicated to the DC from the ROBO location.</p> <p>According to Figure 14: DC and ROBO site IaaS architecture for NLO Skopje ROBO location doesn't contain tape library in IT footprint but we need to offer it 03_IFB-CO-15049-BITI_Book I - Annex A Bidding Sheets (MS Excel) 6,4 NHQ Skopje (NU) fields 6.4.7 and 6.4.8.</p> <p>Could you confirm that all Quantities in 03_IFB-CO-15049-BITI_Book I - Annex A Bidding Sheets (MS Excel) column (H) are correct and we can calculate with them?</p> <p>Annex A Hardware and Software Requirements Can you confirm that all minimal hardware and software requirements are correct and sufficient, and can we calculate with them in 03_IFB-CO-15049-BITI_Book I - Annex A Bidding Sheets (MS Excel)? For example: [183] The vSAN Datacenter Cluster nodes shall use an all-flash configuration to maintain storage performance on virtual servers. - listed configuration for VIRTUAL HOST servers A.1.8 – A.1.10 is not all flash as described in "09_IFB-CO-15049-BITI_Book II - Part IV SOW Annex A System Requirements Specifications" (182) The IaaS VMware vSAN Datacenter shall be installed as a five (5) host cluster to provide the following resources for the virtual servers:(1) 270Tb of raw storage (2) 205 vCPU (3) 610 vRAM We notice that A.1.8 Virtual Host Server and Storage (Large) cannot</p>	<p>Yes, the quantities of equipment stated in the Bidding Sheets and the specifications are authoritative and shall be used when evaluating bids.</p>
37	09_IFB-CO-15049-BITI_Book II - Part IV SOW Annex A System Requirements Specifications	<p>Annex A Hardware and Software Requirements A number of items are described with exact manufacturer names and models, mainly Cisco and HPE. Could you please clarify if only those named models are acceptable, or are bidders allowed to offer different models/manufacturers that match the minimum technical specifications?</p>	<p>Where manufacturer/brand names/models are specified the bidder shall offer equipment that meets the minimum specifications. Where no manufacturer/brand is specified then the bidder shall offer shall be sourced from a mainstream brand manufacturer that has a support and warranty channel that covers the geographical scope of this Contract. The IFB will be amended to show this.</p>
38	09_IFB-CO-15049-BITI_Book II - Part IV SOW Annex A System Requirements Specifications	<p>A.1.12 // Can you please explain terminology "Virtual HOST Witness Server" - Is it necessary to offer physical or virtual solution?</p>	<p>"Virtual HOST Witness Server" is a server role. This is a physical solution as described in the equipment specification A.1.12.</p>

39	09_IFB-CO-15049-BITI_Book II - Part IV SOW Annex A System Requirements Specifications	Section 3. Technical Services Specification 3.7.2 // [199] Backups shall be saved on disks for 1 Month after which they shall be archived on tape library. Can we get workload sizes and daily change rate to properly calculate disk requirements for backup data stores, or can you confirm that backup configuration in "03_IFB-CO-15049-BITI_Book I - Annex A Bidding Sheets (MS Excel)" is correct?	The backup equipment stated in the Bidding Sheets and the specifications are authoritative and shall be used when evaluating bids. After contract award detailed design activities will confirm final designs and equipment configurations.
40	09_IFB-CO-15049-BITI_Book II - Part IV SOW Annex A System Requirements Specifications	Section 3. Technical Services Specification Migration// The Contractor shall provide Engineering Support to migrate equipment, services, users, and data from the existing environment to the new environment Can we get more details about existing workload (services, application, network, amount of data which have to be migrated to new infrastructure)?	After contract award site surveys and detailed design activities shall confirm the details for existing workloads.
41	03_IFB-CO-15049-BITI_Book I - Annex A Bidding Sheets (MS Excel)	6,6 NHQSA HQ (NU/NS) 6.6.8 Router License for SRST Can we get more details about SRST licenses, licenses should be installed on small or large routers intended for NHQSA HQ (NU / NS)?	Yes these are CISCO end point licences for large and small routers.
42	09_IFB-CO-15049-BITI_Book II - Part IV SOW Annex A System Requirements Specifications	A.1.3.1 Core Switch - C9500-DNA-L-A-5Y (DNA Advantage 5 Year License) A.1.3.2 Access Switch Large (SFP) – C9300-DNA-E-48S-5Y (C9300 DNA Essentials, 48-port Fiber, 5 Year Term License) A.1.3.3 Access Switch Small (SFP) – C9300-DNA-E-24S-5Y (C9300 DNA Essentials, 24-Port Fiber, 5 Year Term License) A.1.3.4 Access Switch Large (UTP) - C9300-DNA-E-48-5Y (C9300 DNA Essentials, 48-port - 5 Year Term License) A.1.3.5 Access Switch Small (UTP) - C9300-DNA-E-24-5Y (C9300 DNA Essentials, 24-Port, 5 Year Term License) A.1.3.6 Access Switch Large (PoE) - C9300-DNA-E-48-5Y (C9300 DNA Essentials, 48-port - 5 Year Term License) A.1.3.7 POE Switches (Access, Small) - C9300-DNA-E-24-5Y (C9300 DNA Essentials, 24-Port, 5 Year Term License) Can you explain to us whether all switches need to be offered DNA licenses for 5 years or whether the duration of the licenses needs to be aligned with the duration of the offered manufacturer's warranty?	5 years DNA subscription needs to be offered with the switches
43	09_IFB-CO-15049-BITI_Book II - Part IV SOW Annex A System Requirements Specifications	A.1.3.1 Core Switch Can you explain differences between core switches 1) C9500-24Y4CA and 15) C9500-24Y4C-A? Are the switch configurations identical, is the difference only in TEMPEST?	There was an error in the specifications in the SRS which has been updated and will be released in an amendment to the IFB.

44	09_IFB-CO-15049-BITI_Book II - Part IV SOW Annex A System Requirements Specifications 03_IFB-CO-15049-BITI_Book I - Annex A Bidding Sheets (MS Excel)	6.6.32 Patch cables (LC-LC) 5m In the 03_IFB-CO-15049-BITI_Book I - Annex A Bidding Sheets (MS Excel) the amount of patch cable is 1, is it necessary to offer an additional 24 pieces of patch cable per switch as stated in: A.1.3.2 Access Switch Large (SFP) A.1.3.3 Access Switch Small (SFP)	The specifications and quantities in the SRS have been updated and will be released in an amendment to the IFB.
45	09_IFB-CO-15049-BITI_Book II - Part IV SOW Annex A System Requirements Specifications 03_IFB-CO-15049-BITI_Book I - Annex A Bidding Sheets (MS Excel)	6.4.3 Access Switch (UTP) COTS Can you confirm to us that for point 6.4.3 is Access Switch Small (UTP) as described in A.1.3.5 Access Switch Small (UTP)?	Yes, the description in the Bidding Sheet has been updated and will be released in an amendment to the IFB.
46	09_IFB-CO-15049-BITI_Book II - Part IV SOW Annex A System Requirements Specifications	A.1.3.4 Access Switch Large (UTP) A.1.3.5 Access Switch Small (UTP) Can you explain in more detail which switches need to be offered, in one part of the document it is POE model, and in the other non PoE? For example: A.1.3.4 Access Switch Large (UTP) C9300-48P-E or C9300-48T-E? A.1.3.5 Access Switch Small (UTP) C9300-24P-E or C9300-24T-E?	Two types of copper-based switches are to be offered, the baseline model C9300-24T/C9300-48T (SoW A.1.3.4 and A.1.3.5) and the Power-over-Ethernet enabled models C9300-24P/C9300-48P (SoW A.1.3.6 and A.1.3.7). The PoE models are foreseen for the Bosnia part of the project as unified solution for data and VoIP connectivity. The KFOR theatre has the Voice network upgraded already in the previous project, hence the baseline model for data only is to be offered.
47	09_IFB-CO-15049-BITI_Book II - Part IV SOW Annex A System Requirements Specifications	A.1.3.6 Access Switch Large (PoE) A.1.3.7 POE Switches (Access, Small) Can you explain in more detail which model should we offer 1G or 10G? Example: A.1.3.6 Access Switch Large (PoE) (3) A minimum of two uplink ports capable of 10Gbps operation with different media types 12) C9300-NM-4G Catalyst 9300 4 x 1GE Network Module A.1.3.7 POE Switches (Access, Small) (3) A minimum of two uplink ports capable of 10Gbps operation with different media types 12) C9300-NM-4G Catalyst 9300 4 x 1GE Network Module	The C9300 product line should be equipped with the 10Gbps uplink module C9300-NM-8X=. The referenced C9300-NM-4G modules have been changed to C9300-NM-8X.

48	09_IFB-CO-15049-BITI_Book II - Part IV SOW Annex A System Requirements Specifications	A.1.4.1 Analogue Voice Gateway (large) A.1.4.2 Analogue Voice Gateway (medium) Is it necessary with the devices to offer and appropriate RJ-21 cables for connecting telephone devices to the patch panel? Do you have existing patch panels for that purpose?	Any requirement for additional cables and patch panels shall be determined during the site survey.
49	09_IFB-CO-15049-BITI_Book II - Part IV SOW Annex A System Requirements Specifications 03_IFB-CO-15049-BITI_Book I - Annex A Bidding Sheets (MS Excel)	A.1.5 NU VOIP phone (EUFOR Users only) Can You tell us the exact quantity of IP telephone devices in the document 09_IFB-CO-15049-BITI_Book II - Part IV SOW Annex A System Requirements Specifications the quantity is 400, and in the 03_IFB-CO-15049-BITI_Book I - Annex A Bidding Sheets (MS Excel) the quantity is 381?	The specifications and quantities in the SRS and Bidding Sheets have been updated and will be released in an amendment to the IFB.
50	09_IFB-CO-15049-BITI_Book II - Part IV SOW Annex A System Requirements Specifications 03_IFB-CO-15049-BITI_Book I - Annex A Bidding Sheets (MS Excel)	A.1.5 NU VOIP phone (EUFOR Users only) Can we for 3) R-UCL-UCM-LIC-K9 Top Level SKU For UCL User License - eDelivery offer a newer version of licenses, instead of the proposed LIC-CUCM-11X-ENH-A (UC Manager-11.x Enhanced Single User License) and LIC-CUCM-11X-ENH (UC Manager Enhanced 11 .x License)? Proposed licenses are LIC-CUCM-12X-ENH-A (UC Manager-12.x Enhanced Single User License) and LIC-CUCM-11X-ENH (UC Manager Enhanced 11.x License). What exactly is the required number of licenses 381 or 400? Whether additional licenses for analog telephones are required? For R-UCL-UCM-LIC-K9 needs to offer a physical or virtual server?	The specification requires LIC-CUCM-11X-ENH-A licences. The total number of licenses (127 + 254) = 381.
51	09_IFB-CO-15049-BITI_Book II - Part IV SOW Annex A System Requirements Specifications 03_IFB-CO-15049-BITI_Book I - Annex A Bidding Sheets (MS Excel)	A.1.7.1 SFP Modules (Access 1Gb copper) A.1.7.2 SFP Modules (Access 100Mb short) Can you explain which item in document 03_IFB-CO-15049-BITI_Book I - Annex A Bidding Sheets (MS Excel) refers to A.1.7.1 SFP Modules (Access 1Gb copper) and A.1.7.2 SFP Modules (Access 100Mb short) in document 09_IFB-CO-15049-BITI_Book II - Part IV SOW Annex A System Requirements Specifications? In the document 09_IFB-CO-15049-BITI_Book II - Part IV SOW Annex A System Requirements Specifications You specify: “All existing connections between campus switches should be upgraded from 1Gbps to 10Gbps, and the user access links should be uplifted from 100Mbps to 1Gbps”, whether it is necessary to offer A.1.7.2 SFP Modules (Access 100Mb short)?	100Mb modules shall be used in exceptional circumstances. The items specified in the SRS and Bidding Sheets shall be provided by the Bidder.

<p>52</p>	<p>09_IFB-CO-15049-BITI_Book II - Part IV SOW Annex A System Requirements Specifications 03_IFB-CO-15049-BITI_Book I - Annex A Bidding Sheets (MS Excel)</p>	<p>A.1.3.2 Access Switch Large (SFP) A.1.3.3 Access Switch Small (SFP) Comparing the requirements from documents 09_IFB-CO-15049-BITI_Book II - Part IV SOW Annex A System Requirements Specifications and 03_IFB-CO-15049-BITI_Book I - Annex A Bidding Sheets (MS Excel), it is not clear whether the additional SFPs are independent of the requirements from document 09_IFB-CO-15049-BITI_Book II - Part IV SOW Annex A System Requirements Specifications - A.1.3.2 Access Switch Large (SFP) and A.1.3.3 Access Switch Small (SFP)? Example: A.1.3.2 Access Switch Large (SFP) 1) C9300-48S-E Catalyst 9300 48 GE SFP Ports, modular uplink Switch – qty 1 13) GLC-SX-MMD 1000BaseSX multimode transceiver module – qty 24 - 24 SFP is required per switch A.1.3.3 Access Switch Small (SFP) 1) C9300-24S-E Catalyst 9300 24 GE SFP Ports, modular uplink Switch – qty 1 13) GLC-SX-MMD 1000BaseSX multimode transceiver module – qty 12 - 12 SFP is required per switch In document 03_IFB-CO-15049-BITI_Book I - Annex A Bidding Sheets (MS Excel) in 6.1.14 SFP Modules (Access 1Gb short) quantity is 595, which does not match the sum of the switches from your request.</p>	<p>The GLC-SX-MMD modules included in A.1.3.2 Access Switch Large (SFP) and A.1.3.2 Access Switch Small (SFP) should be treated separately from item A.1.7.3 even though they refer to the same product. The quantity of modules to be delivered under A.1.7.3 is 1178 and in addition to this, the switches A.1.3.2 Access Switch Large (SFP) and A.1.3.2 Access Switch Small (SFP) should be equipped with the same modules, 24 and 12 units per switch respectively</p>
<p>53</p>	<p>09_IFB-CO-15049-BITI_Book II - Part IV SOW Annex A System Requirements Specifications 03_IFB-CO-15049-BITI_Book I - Annex A Bidding Sheets (MS Excel)</p>	<p>A.1.59 1Gb SFP Fibre Network Interface Card Do the following names 1Gb SFP Network Interface Card Tempest C and 1Gb SFP Network Interface Card mean the following module AT-2914SP or something else?</p>	<p>Yes, the description in the Bidding Sheet has been updated and will be released in an amendment to the IFB.</p>

54	03_IFB-CO-15049-BITI_Book I - Annex A Bidding Sheets (MS Excel)	6.1.33 NIPS License COTS Is NIPS License COTS for an existing firewall?	Four of the six "NIPS License COTS" items in CLIN 6.1.33 are for four existing firewalls. The remaining two "NIPS License COTS" items in CLIN 6.1.33 are for the two new firewalls in CLIN 12.4.11. All "NIPS License COTS" items in CLINs 6.6.45 and 12.1.23 are for new firewalls.
55	03_IFB-CO-15049-BITI_Book I - Annex A Bidding Sheets (MS Excel)	CLIN 3.7 and 4.3 have an empty value in the quantity field	The quantities in the Bidding Sheet have been updated and will be released in an amendment to the IFB.
56	Part IV, Statement of Work, Annex A, System Requirement Specification	According to paragraph A.1.47 there is a demand for rugged notebook, including TEMPEST Level C/B. -> Is the manufacturer Black Box correct? Because, to our researches Black Box does not provide such equipment. Could you please evaluate and specify whether black box is the desired manufacturer? -> The rugged notebook is not included into the bidding sheets. Could you please evaluate, if the rugged notebook is needed and in what amount and add it to the bidding sheet, if necessary? -> Could you please evaluate and specify how many devices are requested for each, TEMPEST C and TEMPEST B?	The specified equipment item A.1.47 for a Rugged Notebook has been removed from the SRS and will be released in an amendment to the IFB.
57	"_"	According to paragraph A.1.18 there is a demand for Tape Media. -> In the specifications there is no requirement for TEMPEST according to Level C. However, in the bidding sheets it says "Tape Media TEMPEST C". Could you please specify whether or not, the Tape Media shall be provided with TEMPEST C?	There is no requirement for Tape Media to be Tempest C certified. The description in the Bidding Sheets have been changed and will be released in an amendment to the IFB.
58	"_"	According to paragraph A.1.28 there is a demand for Rack UPS (Large, server rooms), divided into subparagraph A.1.28.1 and A.1.28.2. -> In the bidding sheets there is only stated the request for paragraph A.1.28, Rack UPS. Could you please specify the amount of A.1.28.1 Rack UPS – 6kVA and A.1.28.2 Rack UPS – 8kVA?	The Bidding Sheets have been changed to specify the requirement for A.1.28.1 for the Rack UPS (Large, server rooms) which will be released in an amendment to the IFB.
59	"_"	According to paragraph A.1.38 there is a demand for a A4 printer. -> According to the bidding sheet, A.1.38 is "Projectors (large, 5000 Lumens) Tempest C". Could you please specify whether the request in the bidding sheet is for a A4 printer or for the projector? -> Could you please specify, if a printer is needed overall and if so, in what amount and TEMPEST Level?	There is an error in the Bidding Sheets for some CLINs. The SOW Reference for the equipment specified in the SRS is being corrected and will be released in an amendment to the IFB.

60	“_”	According to paragraph A.1.41 there is a demand for an external media including TEMPEST C. -> According to the bidding sheet, e.g. under CLIN 6.1.52, there is no need for TEMPEST C. Could you please evaluate and specify, if TEMPEST C is needed for a specific amount / all external media within the bidding sheet?	The Bidding Sheets description has been changed to specify the requirement for Tempest C which will be released in an amendment to the IFB.
61	“_”	According to paragraph A.1.42 there is a demand for a Media Converter Module TEMPEST C. -> Despite for being in the requirement specification, the media converter module is not included into the bidding sheet. Could you please evaluate and specify, whether a media converter module according to TEMPEST C is required and if so, in what amount?	The Bidding Sheets description has been changed to specify the requirement for Tempest C which will be released in an amendment to the IFB.
62	“_”	According to paragraph A.1.48 there is a demand for a Laptop (MacBook) TEMPEST B/C. -> According to the bidding sheet, under CLIN 6.6.62, there is no need for TEMPEST B/C. Could you please evaluate and specify, if TEMPEST B/C is needed? -> It is not possible to provide a device according to TEMPEST B/C. Could you please evaluate and specify how many devices are requested for each, TEMPEST C and TEMPEST B?	The SRS has been changed removing the requirement for Tempest which will be released in an amendment to the IFB.
63	“_”	According to paragraph A.1.46 there is a demand for a Laptop (Windows) TEMPEST B/C. -> According to the bidding sheet, under CLIN 6.6.63, there is no need for TEMPEST B/C. Could you please evaluate and specify, if TEMPEST B/C is needed? -> It is not possible to provide a device according to TEMPEST B/C. Could you please evaluate and specify how many devices are requested for each, TEMPEST C and TEMPEST B?	The SRS has been changed removing the requirement for Tempest which will be released in an amendment to the IFB.
64	“_”	According to the bidding sheets CLIN 6.1.27 “GEO Datastore (10 TB, low performance) Tempest” is required. -> Could you please specify which TEMPEST Level (Level B or C) is required?	The Bidding Sheets description has been changed to specify the requirement for Tempest C which will be released in an amendment to the IFB.
65	“_”	According to the bidding sheets CLIN 6.6.6 “Router Small Tempest” is required. -> Could you please specify which TEMPEST Level (Level B or C) is required?	The Bidding Sheets description has been changed to specify the requirement for Tempest C which will be released in an amendment to the IFB.

66	IFB-CO-15049-BITI_Book I - Annex A Bidding Sheets (MS Excel)	According to the bidding sheets CLIN 12.1.25 + 12.4.13 "Rack Peripherals (KVM, KVM Switch) Suggestion: Tempest C" is requested. -> Could you please specify, if you need the devices according to TEMPEST C or if not? A suggestion would not be sufficient, either it is requested to have the device according to TEMPEST C, or not.	The description is changed to specify that the equipment will meet "Tempest C" requirements. The Bidding Sheets have been updated, an ammendment to the IFB will be provided.
67	Book II_Part IV SOW Annex A.1.7.1	This item is included in the SOW, but it cannot be found in the bidding sheets. Please give an explanation and add this item to the Bidding Sheets.	The specifications and quantities in the SRS have been updated and will be released in an amendment to the IFB.
68	Book II_Part IV SOW Annex A.1.7.4	This item is included in the SOW, but it cannot be found in the bidding sheets. Please give an explanation and add this item to the Bidding Sheets.	The specifications and quantities in the SRS have been updated and will be released in an amendment to the IFB.
69	Book II_Part IV SOW Section 3 [205] Page 27	How is the baseline for XML-Labeling guards defined?	The XLG baseline will be established in coordination with the Purchaser following Contract Award. The XLG requires a minimal bootstrap configuration baseline to allow remote access by the Purchaser via the following management protocols specified in section A.1.23 requirement #3: <ul style="list-style-type: none"> • Keyboard, video and mouse (KVM) over Ethernet; • Command Line interface (CLI) via Secure Shell (SSH); • HTTPS web interface. Via this remote access, the Purchaser will complete configuration of the XLG, including the security policy.
70	Book II_Part IV SOW Section 3 [219] Page 30	Does one mean with stateful HTTP protocol attributes HTTP cookies?	It is understood that HTTP is a stateless protocol, and cookies can store stateful information. However, this requirement does not involve cookies. HTTP is built upon TCP/IP; therefore, this requirement implies that the stateful protocol attributes of TCP shall not be used in the new connection.
71	Book II_Part IV SOW Annex A.1.23	The XML Labelling Manufacturer and product must be included in the NIAPC. Does the offered XLG solution need to have a NATO SECRET accreditation?	The XLG product does not require security accreditation. However, the XLG product must be included in the NATO Information Assurance Product Catalogue (NIAPC) (http://www.ia.nato.int/niapc) as a Security Enforcing Product, as per System Requirement Specification section A.1.23. The interconnection via the IEG-C solution, of which the XLG is a component, will be subject to accreditation during the project. As per System Requirement Specification section 3.8 paragraph [237], the XLG is required to be evaluated against Common Criteria (CC) Evaluation Assurance Level (EAL) 4+ or national equivalent and be capable of being configured in accordance with Technical and Implementation Directive on CIS Security [NAC AC/322-D/0048-REV3, 2019].

72	Book II_Part IV SOW Section 2 Point 2.4	Will a technically compatible alternative solution instead of vSAN that still uses VMWare virtualization technology to host VMs and virtualized storage be accepted?	The Agency will not accept an alternate solution to vSAN for this project because of interdependencies with other IT infrastructure and services.
73	Book II_Part IV SOW Section 2 Point 2.4	vSAN storage services are available only for VMs running on the vSAN host. Will a more open storage architecture that supports a technology or model that allows external computing resources to be attached to the HCI storage nodes be also accepted?	External compute resources shall access the vSAN storage using iSCSI and SMB file shares. Other open storage access protocols are not required.
74	Book II_Part IV SOW Section 2 Point 2.4	Will a solution without CPU overhead, potentially reducing the total cost of ownership (TCO) be accepted? vSAN requires 10-30% CPU overhead for storage.	No, the vSAN CPU overhead is factored into the design and specifications.
75	Book II_Part IV SOW Section 2 Point 2.4	vSAN upgrade and extension offerings are inflexible and result in significant performance degradation in case of maintenance changes. Will a solution and add value to a solution that can be expanded and contracted flexibly to allow upgrades and resizing without limitations or performance impact be accepted?	No, the performance degradation during maintainance operations is factored into the vSAN solution.
76	Book II_Part IV SOW Section 2 Point 2.4	vSAN only provides a data reduction of 2 to 1 workload. Will a solution that offers data reduction of 4:1 or better and possibly lower the total cost of ownership (TCO) also be accepted?	A solution that provides a 4:1 workload data reduction is interesting, however the amount of data to be stored on the vSAN will not be large so the lower TCO is expected to be nominal.
77	Book II_Part IV SOW Section 2 Point 2.4	Will a solution that guarantees application performance across all its application workloads also be accepted and considered in its evaluation?	No, only the equipment specified in the SRS shall be evaluated.
78	Book II_Part IV SOW Section 2 Point 2.4	vSAN is a shared HCI core solution. Will n HCI solution with separate storage and compute nodes that allows independent scalability of resources be accepted?	The Agency will not accept an alternate solution to vSAN for this project because of interdependencies with other IT infrastructure and services.
79	Book II_Part IV SOW	In the description of the data center solution the file services are not mentioned. Please describe the file services management that these include CIFS, NFS and SMB protocols?	File services will be provided using a traditional file server. NFS is not a requirement.
80	Book II_Part IV SOW Section 2 Point 3.5.1	Will an alternative solution for long term storage and disaster recovery be accepted that removes disadvantages involved with Tape?	The Agency appreciates that there are a number of alternate solutions to tape for for long term storage but for the scope of this project the use of tape to store backups and archives for longer periods is sufficient.
81	Book II_Part IV SOW Section 2 Point 3.5.1	Will a more modern ILM and Retention policy be considered to address any concerns with replacing tape?	Implementation of a modern ILM solution is not the main purpose of this project. ILM and archiving of data for missions is being considered but until these requirements are expressed they will not be included within the scope of this project.
82	Book II_Part IV SOW Section 3 Point [96] Page 16	In order to avoid a limitation of the possibilities in the area of competition, the question arises whether the use of standard storage protocols (iSCSI) is also permitted in order to avoid a vendor lock-in.	The project will be using standard storage protocols including iSCSI
83	Book II_Part IV SOW Section 3 Point [96] Page 16	vSAN does not allow utilization of existing infrastructure assets such as storage and compute and also does not allow for future changes to different hypervisors, container based solutions other than what is offered by VMware. This is providing a vendor lock-in challenge. Will a solution be accepted that will not only provide VMware hypervisor use today, but also allow for flexibility with other hypervisors and container based solutions outside the VMware product line?	The Agency has standardised on VMware virtualisation solutions for most of its IT infrastructure projects and has no plans to change solutions or vendors at this time.

84	IFB-CO-15049-BIT1	<p>1 IaaS DC Architecture Section 2, 2.4</p> <p>The IaaS Datacentre Architecture shall provide a high-resiliency virtualised platform using VMware virtualisation technology to host Virtual Machines (VMs) and virtualised storage.” a NCI Agency has mandated and name branded vSAN throughout the document for the data centre architecture. vSAN is not the only architecture that can accomplish IaaS DC architecture requirement.</p> <p>Question: will NATO NCI Agency accept a technically compliant alternative solution instead of vSAN that still uses VMWare virtualization technology to host VMs and Virtualized Storage ?</p>	<p>The Agency will not accept an alternate solution to vSAN for this project because of interdependencies with other IT infrastructure and services.</p>
85	IFB-CO-15049-BIT1	<p>Question: vSAN requires 10-30% CPU overhead for storage. Will NCI Agency accept a solution that provides zero CPU overhead that will potentially lower total cost of ownership (TCO)? ?</p> <ul style="list-style-type: none"> • For example, Item 182, page 25 of system requirements document shows the following: (2) 205 vCPU (3) 610 vRAM. The vSAN technology will severely reduce the resource offerings of the requirements listed. 	<p>The vSAN CPU overhead is factored into the design and specifications.</p>
86	IFB-CO-15049-BIT1	<p>Question: vSAN only offers a 2 to 1 workload data reduction. Will NCI Agency accept a solution that provides 4:1 workload data reduction or better that will potentially lower total cost of ownership (TCO)?</p>	<p>A solution that provides a 4:1 workload data reduction is interesting, however the amount of data to be stored on the vSAN will not be large so the lower TCO is expected to be nominal.</p>
87	IFB-CO-15049-BIT1	<p>Question: vSAN is a shared core HCI solution. Will NCI Agency accept an HCI solution that has separate storage and compute nodes allowing independent scalability of resources?</p>	<p>The Agency will not accept an alternate solution to vSAN for this project because of interdependencies with other IT infrastructure and services.</p>
88	IFB-CO-15049-BIT1	<p>Question: Will NCI Agency accept a solution and consider in their evaluati</p>	<p>The question cannot be understood or answered, please resubmit!</p>
89	IFB-CO-15049-BIT1	<p>Question: vSAN upgrade and expansion offerings are inflexible and severely degrade performance during maintenance changes. Will NCI Agency accept and add merit value to solution that expands and contracts flexibly to allow upgrades and resizing without limits or performance impact?</p>	<p>No, performance degradation during maintenance operations is factored into the vSAN solution.</p>
90	IFB-CO-15049-BIT1	<p>Question: vSAN storage services are only available to VM running on the vSAN host. Will NCI Agency accept a more open storage architecture supporting technology and / or model that allows external compute resources to attach to the HCI storage nodes</p>	<p>No, the project will be using standard storage protocols including iSCSI and SMB to access the vSAN storage services</p>
91	IFB-CO-15049-BIT1	<p>2 FILE SERVICES:</p> <p>a There is no mention of files services throughout the data center solution description of services Question: What is the plan to manage File Services to include CIFS, NFS and SMB protocols?</p>	<p>File services will be provided using a traditional file server. NFS is not a requirement.</p>

92	IFB-CO-15049-BITI	<p>3 BACK-Up 3.5 IaaS Component, 3.5.1 Installation: a NCIAGENCY is requesting the following: "A backup and archiving solution shall be installed using the equipment provided in this contract to provide a two tier backup strategy that provides backup to disk for fast retrieval and backup to tape for long term storage and disaster recovery. To facilitate this two-tier strategy for each site, data will be replicated to the Datacentre sites from the ROBO sites where the data can be stored on tape for disaster recovery purposes and archiving."</p> <p>Question: Will NCIAgency permit an alternative solution for long term storage and disaster recovery that removes the costs and burdens involved with Tape?</p>	<p>The Agency appreciates that there are a number of alternate solutions to tape for for long term storage but for the scope of this project the use of tape to store backups and archives for longer periods is sufficient.</p>
93	IFB-CO-15049-BITI	<p>Question: Will NCIAgency consider a more modern ILM and Retention policy to address any concerns with replacing tape?</p>	<p>Implementation of a modern ILM solution is not the main purpose of this project. ILM and archiving of data for missions is being considered but until these requirements are expressed they will not be included within the scope of this project.</p>
94	IFB-CO-15049-BITI	<p>4 Sole Source clarification. Section 3.</p> <p>Technical Services Specification, Item 96 a NATO Writes: "Where named brands or models are specified, NATO requires these specific named products to ensure commonality for logistics, maintenance, and troubleshooting purposes. As these are implemented throughout the NATO networks, this enables the Purchaser to minimize the training, spares, maintenance and logistics costs associated with the networks and provide the best support to the end-user."</p> <p>** concern with the statement made in Section 3. Technical Services Specification, Item 96 as it appears to severely limit the opportunity for innovation and competition in this IFB. While Veeam, vSAN, and HPE may be located on some NATO networks, similar solutions from other vendors are equally found if not more prevalent on NATO networks throughout the alliance including but not limited to ANWI, NHQ, NSHQ, SHAPE, NAGSMA AGS, DCIS, etc.</p> <p>Question: vSAN locks customers into a VMware only solution. Will NCIAgency accept the use of standard storage protocols (iSCSI) to prevent vendor lock-in?</p>	<p>Your concern is noted. The project will be using standard storage protocols including iSCSI.</p>
95	IFB-CO-15049-BITI	<p>Question: vSAN does not allow utilization of existing infrastructure assets such as storage and compute. vSAN also does not allow for future changes to different hypervisors, container based solutions other than what is offered by VMware, thus providing NATO with a vendor lock-in challenge. Will NCIAgency accept a solution that will not only provide VMware hypervisor use today, but also allow for flexibility with other hypervisors and container based solutions outside the VMware product line?</p>	<p>The Agency has standardised on VMware virtualisation solutions for most of its IT infrastructure projects and has no plans to change solutions or vendors at this time.</p>

96	Book II_Part IV SOW Annex A.1.32	The referenced printer MFP M880z does not support the following requested features: <ul style="list-style-type: none"> • Item #8 “Fonts” Adobe PDF 1.7, CALS G4, GL/2 and RTL • Item #9 “Network” TCP/IP/SMP and LPD Please remove, clarify or replace this requirement.	The specifications and quantities in the SRS have been updated and will be released in an amendment to the IFB.
97	Book II_Part IV SOW Annex A.1.33	The SoW minimum requirements listed for SoW A.1.33 are the same requirements (repeated) listed in SoW A.1.32. Please remove, clarify or replace these requirements.	The specifications and quantities in the SRS have been updated and will be released in an amendment to the IFB.
98	Book II_Part IV SOW Annex A.1.34	The referenced printer DesignJet T830 does not support the following requested features: <ul style="list-style-type: none"> • Item # 2 “Printing Size” there is no reference to the required size. We assume that the standard A0 print size of 11" to 36" (279 to 914 mm) is requested. Please confirm • Item # 4 “Paper Capacity” two automatic roll feeds; smart roll-switching is requested but not supported by the T830. Please remove, clarify or replace this requirement. • Item # 5 “PDL” Adobe Post Script 3 and Adobe PDF 1.7 are not supported. Please remove, clarify or replace these requirements. • Item # 7 “Speed” The speed of the T830 is expressed in seconds per page and prints per hour (25 sec/page on A1/D, 82 A1/D prints per hour) not in meters or feet per hour. Please remove, clarify or replace this requirement. • Item # 9 “features” two automatic roll feeds; smart roll-switching is requested but not supported by the T830. Please remove, clarify or replace this requirement. 	There was an error in the specifications in the SRS which has been updated and will be released in an amendment to the IFB.
99	Book II_Part IV SOW Annex A.1.35	The SoW title reads “A0 Plotter + Media Converter” however the device requested (HP DesignJet T520) is an A1 plotter not A0. Please remove, clarify or replace this requirement.	There was an error in the specifications in the SRS which has been updated and will be released in an amendment to the IFB.
100	Book II_Part IV SOW Annex A.1.35	Item # 1 “Model” The requested model T520 is EOL, are we correct in assuming that the successor model HP DesignJet T525 may be offered? Please confirm.	The specifications and quantities in the SRS and Bidding Sheets have been updated and will be released in an amendment to the IFB.
101	Book II_Part IV SOW Annex A.1.35	Item # 4 “Paper Capacity” two automatic roll feeds; smart roll-switching is requested but not supported by the T520. Please remove, clarify or replace this requirement.	There was an error in the specifications in the SRS which has been updated and will be released in an amendment to the IFB.
102	Book II_Part IV SOW Annex A.1.35	Item # 6 “Fonts” PCL/PS not supported by T520 Please remove, clarify or replace this requirement.	The specifications and quantities in the SRS and Bidding Sheets have been updated and will be released in an amendment to the IFB.
103	Book II_Part IV SOW Annex A.1.38	The SoW minimum requirements listed for SoW A.1.38 are the same requirements (repeated) listed in SoW A.1.31. Please remove, clarify or replace these requirements.	The specifications and quantities in the SRS have been updated and will be released in an amendment to the IFB.
104	Book II_Part IV SOW Annex A.1.39	Item # 5 “Screen Size Diagonal” The required size for this item 40" to 600" (1.02 m to 15.24 m) is well outside the typical projection size of a “medium” projector and is also larger than that of the projector size required by the “Large” projector SoW. Please remove, clarify or replace these requirements.	Bidders shall offer equipment that meets the provided specifications in the IFB

105	Book II_Part IV SOW Annex A.1.40	Item # 5 "Screen Size Diagonal" The required size for this item Screen size 0.78m~7.81m (30.7"~307.5") is well outside the typical projection size of a "small" portable projector. Please remove, clarify or replace this requirement.	Bidders shall offer equipment that meets the provided specifications in the IFB. Also a projector that can project a screen size of 30" (76.2 cm) to 300" (762cm) is acceptable. The equipment specification is being corrected and will be released in an amendment to the IFB.
106	Book II_Part IV SOW Annex A.1.47	Item # 13 "Docking Station" SoW requires that the Laptop should be able to be used with the docking station described below but no docking station is mentioned. Please remove, clarify or replace this requirement.	The specifications and quantities in the SRS have been updated and will be released in an amendment to the IFB.
107	Book II_Part IV SOW Annex A	Are we right in assuming that every client-product should be delivered with an EU power plug?	Yes, EU Power plugs will be required for all delivered client equipment products.
108	03_IFB-CO-15049- BIT1_Book I - Annex A Bidding Sheets (MS Excel)	Router Small Tempest (SOW Ref.) A.1.1.2 Could you please specify the required TEMPEST Level?	Please refer to the Bidding Sheets for the tempest level.
109	03_IFB-CO-15049- BIT1_Book I - Annex A Bidding Sheets (MS Excel) CLIIN 6.6.30	Virtual Host witness server NS Tempest (SOW Ref. A.1.12) Could you please specify the required TEMPEST Level?	Please refer to the Bidding Sheets for the tempest level.
110	03_IFB-CO-15049- BIT1_Book I - Annex A Bidding Sheets (MS Excel) CLIIN 12.1.21	Firewalls (IEG-C & SPN +1 Year Support) (SOW Ref. A.1.20) What is your requirement for the equipment – COTS or TEMPEST (what level)?	The Bidding Sheets description has been changed to specify the requirement for Tempest C which will be released in an amendment to the IFB.
111	03_IFB-CO-15049- BIT1_Book I - Annex A Bidding Sheets (MS Excel) CLIIN 6.6.46	Proxy device (SOW Ref. A.1.25) What is your requirement for the equipment – COTS or TEMPEST (what level)?	The Bidding Sheets description has been changed to specify the requirement for Tempest C which will be released in an amendment to the IFB.
112	03_IFB-CO-15049- BIT1_Book I - Annex A Bidding Sheets (MS Excel) CLIIN 6.6.63	Laptop (Windows) (SOW Ref. A.1.46) What is your requirement for the equipment – COTS or TEMPEST (what level)?	COTS. The Bidding Sheets description has been changed to specify the requirement which will be released in an amendment to the IFB.

113	03_IFB-CO-15049-BITI_Book I - Annex A Bidding Sheets (MS Excel) CLIIN 6.6.62	Laptop (MacBook) (SOW Ref. A.1.48) What is your requirement for the equipment – COTS or TEMPEST (what level)?	COTS. The Bidding Sheets description has been changed to specify the requirement which will be released in an amendment to the IFB.
114	03_IFB-CO-15049-BITI_Book I - Annex A Bidding Sheets (MS Excel) CLIN 6.1.30 CLIN 12.1.19	Tape Media Tempest C (SOW Ref. A.1.18) Tape media cannot be TEMPEST Certified. Please confirm that Tape Media (SOW Ref. A.1.18) shall be COTS product.	COTS. The specifications and quantities in the Bidding Sheets and SRS have been updated and will be released in an amendment to the IFB.
115	03_IFB-CO-15049-BITI_Book I - Annex A Bidding Sheets (MS Excel) CLIN 6.1.53 CLIN 6.6.61 CLIN 12.2.12 CLIN 12.3.12	1Gb SFP Network Interface Card Tempest C (SOW Ref. A.1.59) 1Gb SFP Network Interface Card cannot be TEMPEST Certified. Please confirm that 1Gb SFP Network Interface Card (SOW Ref. A.1.59) shall be COTS product.	The Bidding Sheets description has been changed to specify the requirement for Tempest C which will be released in an amendment to the IFB.
116	02_IFB-CO-15049-BITI_Book I-Bidding Instructions.pdf	Please clarify the content / structure of the requested System Design Specification (SDS) (No page limit) document that is part of the Engineering proposal, page 35. Is a draft of this document requested or only the communication plan to reach the SDS as per requirement in Bidding Sheets 3.6.6.1.5.4.2.: "The Bidder shall provide confirmation of support on development of the SDS and a description of the collaboration plan."?	Yes. The Bidder shall provide confirmation of support on development of the SDS and a description of the collaboration plan.
117	08_IFB-CO-15049-BITI_Book II - Part IV Statement of Work.pdf	"5.4.2. The Contractor shall propose to the Purchasers a tailoring of the S3000L Specification, in order to define as a minimum, the following elements in accordance with the Maintenance and Support levels defined in ANNEX C and the maintenance concept defined in paragraph TBD:" Please specify which paragraph contains the details.	...in accordance with the Maintenance and Support levels defined in ANNEX C and the maintenance concept defined in paragraph 5.3
118	08_IFB-CO-15049-BITI_Book II - Part IV Statement of Work.pdf	"5.10.15. In addition to the on-site training, the Contractor shall provide general training in Europe as listed in the table of required training courses below." Please specify how many training sessions shall be considered. Also what is the audience of the training so that the technical level of the training can be assessed?	Training courses stated in Table 11 (General Training Courses) are courses offered by commercial providers throughout Europe. If organized specifically for the participants in scope of this contract one session per course is assumed. The technical level of the audience shall be assessed as part of the Training Needs Analyses (TNA). Please refer to Statement of Work 5.10.20

119	08_IFB-CO-15049-BITI_Book II - Part IV Statement of Work.pdf	For the migration phase, could you please elaborate the role of the Contractor and the Purchaser? Who will perform the migration of all services?	The contractor shall perform migration tasks as directed by the Purchaser, as described in the SOW paragraphs; 1.2.4, 1.2.5, 4.3.4.1, 6.1, Annex C and SRS.
120	08_IFB-CO-15049-BITI_Book II - Part IV Statement of Work.pdf	What will the Engineering support cover in case of a migration topic? Please detail the services to be migrated in case the Contractor will be delegated via a Task Order to perform it completely.	Engineering Support may also include migration activities. Engineering support activities shall be defined in the Task Order and is described in SOW paragraphs; 1.1.3, 1.2.4, 4.3.6.
121	09_IFB-CO-15049-BITI_Book II - Part IV SOW Annex A System Requirements Specifications.pdf 3.8.2. Installation [206]	Please detail the role of the Contractor in the following statement: "The NIPS components shall be installed as software modules on the firewalls. In cases where existing Palo Alto firewalls are to be provided as PFE, NIPS software modules are to be provided for use on the PFE firewalls." The NIPS will be installed only on firewalls that are not PFE? Only the software licenses for NIPS should be "provided", but not installed?	Each NIPS component is a Palo Alto Threat Prevention subscription, which is "installed" by activating the subscription on a firewall through the use of a valid activation code. For each NIPS component, the Contractor must provide the Purchaser with a valid licence including activation code. This is sufficient for both PFE and new firewalls. The Purchaser will activate and verify the validity of each licence provided by the Contractor.
122	02_IFB-CO-15049-BITI_Book I-Bidding Instructions.pdf	Please provide the document 2_IFB-CO-15049-BITI_Book I-Requirements Traceability Matrix.xls It was not received in the original bid package. 3.6.6.1.5.5.2. "The RTM with no-page limit shall be provided in the form of the attached excel file duly filled up: 2_IFB-CO-15049-BITI_Book I-Requirements Traceability Matrix.xls"	This is a misinterpretation of the wording. The requirement should be understood to mean that bidders are to generate an RTM of the Bidders are to generate their own RTM meeting the requirements of 3.6.6.1.5.5.2 ;3.6.6.1.5.5.3; and 3.6.6.1.5.5.4. Which for ease of evaluation shall use the title "2_IFB-CO-15049-BITI_Book I-Requirements Traceability Matrix" in excel format. No Blank RTM will be provided by the Purchaser
123	Book I - Bidding Instructions 3.6.6.1.5.5.2 RTM	The mentioned Excel file has not been attached to the IFB documents. Can the Purchaser please provide this file?	This is a misinterpretation of the wording. The requirement should be understood to mean that bidders are to generate an RTM of the Bidders are to generate their own RTM meeting the requirements of 3.6.6.1.5.5.2 ;3.6.6.1.5.5.3; and 3.6.6.1.5.5.4. Which for ease of evaluation shall use the title "2_IFB-CO-15049-BITI_Book I-Requirements Traceability Matrix" in excel format. No Blank RTM will be provided by the Purchaser
124	Book I - Bidding Instructions	The Bidder have found various wrong chapter references in the Bidding Instructions document. A few of many examples are: 3.6.2 – reference made to 3.6.3 which is incorrect 3.6.2.1 – reference made to 3.6.5.1.4 which does not exist 3.6.2.2 – reference made to 3.6.5.1.5 which does not exist 3.6.2.3 – reference made to 3.6.5.1.6 which does not exist Can the Purchaser please go through the Bidding Instructions document and correct?	Noted. Corrected in Amendment 2.
125	Book I - Bidding Instructions 3.6.5	Can the Purchaser please allow also Arial font in size 10 to be used for normal text?	Yes

126	Book I - Bidding Instructions Section 3 3.3, 3.4, 3.5, 3.6 and Book II part IV SoW- Section 7, and 8 and 9	The Bid preparation instructions in Section 3 of the Bidding Instructions and also the content overviews presented in 3.3, 3.4, 3.5 and 3.6 do not include any references to SOW Section 7 (QA and QC), Section 8 (CM) nor Section 9 (SA). Can the Purchaser confirm that no documents or other content related to SOW Sections 7, 8 and 9 are expected and required to be submitted with the bid?	The Quality Assurance Plan (QAP) in Section 7 is part of the PMP as defined in SOW 4.1.4.4. and SOW 7.1.2. and will be part of the evaluation. Bidding Instructions will be updated to reflect this more clearly. The Configuration Management Plan defined in Section 8 will be subject to evaluation. The Bidding Instructions will be updated to reflect this requirement. Section 9 Security Accreditation (SA) will NOT be subject to the bid evaluation in this contract.
127	Book I - Bidding Instructions Annex B.13 List of Proposed Key Personnel and Book II Part IV SOW 4.1.2.1 and Book II Part IV SOW Annex C	The Key personnel mentioned in different parts of the bid documents is inconsistent and unclear: • Certificate B.13 lists Project Manager, Technical Lead, Technical Writer / Author ILS Manager and VMware Certified Professional (VCP) • Book II Part IV SOW 4.1.2.1. lists Project Manager, Technical Lead, ILS Manager and Field Service Representative • Book II Part IV SOW Annex C lists: Project Manager, Technical Lead, Technical Writer / Author and VMware Certified Professional (VCP) Can you please confirm the required Key Personnel roles for this bid?	ANNEX C of the SOW is correct, other entries have been amended to reflect the same
128	Book I Annex B and Book II Part IV SRS	Is there a requirement to deliver a signed Certificate of Authenticity from each major manufacturer for all the equipment identified in the SRS and provided as part of this proposal? If required, please identify which manufacturer.	Certificate of Authenticity not required
129	Book I Annex A Bidding Sheets CLIN summary CLIN 4.3	Missing QTY and unit of measure Can the Purchaser please update?	The specifications and quantities in the Bidding Sheets and SRS have been updated and will be released in an amendment to the IFB..
130	Bidding Sheets CLIN summary CLIN 3.7	Missing QTY and unit of measure Can the Purchaser please update?	The specifications and quantities in the Bidding Sheets and SRS have been updated and will be released in an amendment to the IFB..
131	Book II part II - Special contract provisions - 3.3	Special contract provision para 3.3 states that the Contractor shall provide permanent on-site support and maintenance for the first year as part of the base Contract. Is this a requirement? If yes, can the Purchaser please identify where in SSS the bidder is supposed to add the cost for this service (onsite support)?	No permanent on-site support required. The IFB documentation has been modified to reflect the information in Amendment 2

132	Book I Annex A Bidding Sheets CLIN summary CLIN 7 SOW 4.3.6	It is unclear for the Bidder how to complete the pricing of Engineering Support in CLIN 7.1 and CLIN 7.2 and the bidding sheets. The SSS identifies the quantity 1. The SOW para 4.3.6 describes high level requirements and refer to task orders without any further details of the tasks or effort needed other than that the task order will be of a minimum of 5 days. In addition, it requests to provide hourly rates and travel expense for the key contractor personnel listed in Annex C. . Purchaser is requested to clarify?.	Please provide the price components as per instruction in the relevant sheets: - Labour sheet: provide all relevant labour categories and underlying labour rates under CLIN 7 (make sure all categories and rates are listed). - Travel sheet: provide travel expenses under CLIN 7. - ODC sheet: provide any other direct costs linked to Engineering Support under CLIN 7.
133	Book I Annex A Bidding Sheets CLIN summary CLIN 7	Can the Purchaser consider to change CLIN 7 from the Base contract to an unevaluated option as it is hard to estimate the total labour required for an unknown task order in this contract?	Please provide information regarding Engineering Support as instructed under relevant sheet and with link to CLIN 7. Make sure labour categories and labour rates are all listed.
134	Book I Annex A Bidding Sheets CLIN summary and Book II part IV SoW-1.2.11	Purchaser is requested to identify which CLINs the labor for the installation, implementation, configuration effort needs to be assigned per site.	Labour specific to each CLIN can be specified in the labour sheet of the bidding sheet. This detailed labour table is to be completed by Bidder with all columns populated and shall be expanded to include as many rows as necessary to provide the detail requested at appropriate CLIN level.
135	Book I Annex A Bidding Sheets CLIN summary and Book II part IV SoW-1.2.11	Purchaser is requested to identify which CLINs the labor for the testing effort needs to be assigned per site.	Labour specific to each CLIN can be specified in the labour sheet of the bidding sheet. This detailed labour table is to be completed by Bidder with all columns populated and shall be expanded to include as many rows as necessary to provide the detail requested at appropriate CLIN level.
136	Book I Annex A Bidding Sheets CLIN summary CLIN 2.1	Purchaser requested to confirm if cost for site surveys of all other locations in Kosovo besides Pristina are to be added and detailed under this CLIN 2.1.	Please consider that all sites in Kosovo are embedded under CLIN 2.1. The CLIN will not be further broken down. However if needed, you can expand the rows as needed in the labour, material, travel and ODC sheets under CLIN2.1 to provide the detail requested at appropriate CLIN level.
137	Book II Part IV SOW Section 5.3.2 & 5.3.4	It states in SOW 5.3.2. that the Purchaser is to perform HL1/2 and SL1/2 and up to Level 3 from PSA until the end of the Warranty Period. In 5.3.4 it states the Contractor is responsible from PSA for all HL3/4 and SL3/4. Can the Purchaser clarify who is responsible to deliver Level 3 support?	The requirement for the Contractor to perform Support and Maintenance activities following PSA has been removed. SOW 5.3.2. will be changed to reflect that all Support and Maintenance Levels will be performed by the Purchaser. SOW 5.3.4. will be deleted
138	Book II Part IV SOW Section 5.3.5	It states the Contractor will be required to deliver all on-site maintenance beyond the capability of NATO personnel to restore the system from a critical failure with an MTTR of 45 minutes. Can the Purchaser clarify that an on-site presence is required for each location to correct critical failures? Please identify which CLIN in the SSS this effort is supposed to be included?	The requirement for the Contractor to perform on-site Support and Maintenance activities following PSA has been removed. Therefore requirement 5.3.5 has been deleted and will be reflected in Amd 1 of this SOW.

139	Book II Part IV SOW Section 5.3.5	Will the Purchaser support security cleared permanent onsite access for the Contractor to all areas where the BITI equipment is installed, including the availability of escorts were necessary, especially the installation site in Belgrade? This will be required to enable the Contractor to meet the MTTRS of 45 minutes.	The requirement for the Contractor to perform on-site Support and Maintenance activities following PSA has been removed. Therefore requirement 5.3.5 has been deleted and will be reflected in Amd 1 of this SOW.
140	Book II Part IV SOW Section 5.3.8	Can the Purchaser confirm the requirement to supply onsite technical assistance at all levels from the PSA to FSA + 1 year at each location?	No, the requirement for the Contractor to perform Support and Maintenance activities following PSA has been removed. The text in SOW 5.3.8. will be changed accordingly. The wording "on-site technical assistance" has been replaced by "remote technical assistance".
141	Book II Part IV SOW Section 5.10.21 and 5.10.22	These points request Target Audience Analysis (TAA) and Performance Gap Analysis (PGA) to be conducted as part of the TNA. Can the Purchaser confirm that the target audience will be available to attend interviews conducted by the Contractor to enable TAA and PGA to be performed effectively?	Interviews with all individuals to be trained cannot be guaranteed. Interviews of selected personnel is assumed to be possible.
142	Book II Part IV SOW Section 5.10.20	Can the Customer confirm if the SOW sections* detailed below are sub-sections of 5.10.20 or standalone SOW requirements: *SOW Sections 5.10.21 to 5.10.24.	Confirmed. 5.10.21 to 5.10.24 are sub-sections of 5.10.20 Formatting will be updated.
143	Book II Part IV SOW Section 5.10.30	Can the Customer confirm if the SOW sections* detailed below are sub-sections of 5.10.30 or standalone SOW requirements: *SOW Sections 5.10.31 to 5.10.35.	Confirmed. 5.10.31 to 5.10.34 are sub-sections of 5.10.30 5.10.35 is a standalone requirement Formatting will be updated.
144	Book II Part IV SOW 5.10.15 Table 11	The numbers of personnel to attend each course are detailed in 5.10.15 Table 11. Can the Purchaser clarify of total number personnel required to be trained in accordance with Table 11? As some personnel will attend more than one (1) course.	For the training courses stated in Table 11, the Contractor shall calculate for the participants/training slots as provided. Appointed personnel cannot be provided at this stage.
145	Book II Part IV SOW Section 5.10.35	If the Contractor opts to utilise an eLearning Package within the Training proposal, will the Purchaser provide an eLearning Training Management Platform to be hosted on the NATO intranet?	A Training Management Platform will not be provided by the Purchaser.
146	Book II Part IV SOW Section 5.10.35	If the Contractor opts to utilise an eLearning Package within the Training proposal, if the Purchaser is unable to provide an eLearning Training Management Platform will the proposed candidates be able to access the training via the internet?	The training method and training equipment to be used shall be part of the training planning including prerequisites. The availability of NATO Unclassified Internet is depending on the training location.
147	Book II Part IV SOW 5.17	Can the Purchaser confirm that all removable storage devices and devices which cannot be cleansed of sensitive information will be retained and disposed by NATO?	We confirm storage devices will be retained and disposed of by NATO.
148	Book II part IV SoW - Annex B	Requirement B1.3 seems not finalised. Can the Purchaser please confirm- which are the new on-site PFE and PFS to be implemented and provided?	Quantities of PFE equipment and services will be identified during site surveys!
149	Book II part IV SRS Annex A - A.1.47	According to Book I Annex A Bidding Sheets - CLIN Summary, the system specified as Rugged Notebook does not belong to any CLIN. Could the purchaser please confirm if these systems should be part of the proposal and if so under which CLIN?	The specifications and quantities in the SRS and bidding sheets have been updated and will be released in an amendment to the IFB.
150	Book II part IV SRS Annex A - A.1.47	Could the purchaser confirm if the Item# 1 (Brand) and Item# 2 (Bracket) specified as part of the Minimum Requirements of the Rugged Notebook are wrong and can be removed?	The specifications and quantities in the SRS and bidding sheets have been updated and will be released in an amendment to the IFB.

151	Book II part IV SRS Annex A - A.1.28	According to Book I Annex A Bidding Sheets - CLIN Summary, Rack UPS (Large, server rooms) system should be offered as part of the following CLIN (6.1.39, 6.1.40, 6.4.12, 6.5.10, 6.6.50, 6.6.51, 6.7.14, 12.1.26 and 12.4.14). However, there are two different specifications for this system (A.1.28.1 and A.1.28.2). Could the purchaser please confirm which type of UPS should be provided (6kVA or 8KVA)	Quantities of PFE equipment and services will be identified during site surveys!
152	Book II part IV SRS Annex A - A.1.7.1	According to Book I Annex A Bidding Sheets - CLIN Summary, the item - SFP Modules (Access 1Gb copper) does not belong to any CLIN. Could the purchaser please confirm if this item should be part of the proposal and under which CLIN?	The SRS has been updated, an amendment to the IFB shall be released
153	Book II part IV SRS Annex A - A.1.7.4	According to Book I Annex A Bidding Sheets - CLIN Summary, the item - SFP Modules (Interconnect 1Gb, , long) does not belong to any CLIN. Could the purchaser please confirm if this item should be part of the proposal and under which CLIN?	The SRS has been updated, an amendment to the IFB shall be released
154	Book II part IV SRS Annex A - A.1.31	According to Book I Annex A Bidding Sheets - CLIN Summary, the system - A4 Printer does not belong to any CLIN. Could the purchaser please confirm if this item should be part of the proposal and under which CLIN?	The description and quantities in the Bidding Sheets and SRS have been updated and will be released in an amendment to the IFB..
155	Book II part IV SRS Annex A - A.1.42	According to Book I Annex A Bidding Sheets - CLIN Summary, the item - Media Converter Module does not belong to any CLIN. Could the purchaser please confirm if this item should be part of the proposal and under which CLIN?	The description and quantities in the Bidding Sheets and SRS have been updated and will be released in an amendment to the IFB..
156	Book II part IV SRS Annex A - A.1.43	According to Book I Annex A Bidding Sheets - CLIN Summary, the item - Media Converter SFP 155-Mbps LC does not belong to any CLIN. Could the purchaser please confirm if this item should be part of the proposal and under which CLIN?	The description and quantities in the Bidding Sheets and SRS have been updated and will be released in an amendment to the IFB..
157	Book II part IV SRS Annex A - A.1.44	According to Book I Annex A Bidding Sheets - CLIN Summary, the item - Media Converter SFP 1250-Mbps LC does not belong to any CLIN. Could the purchaser please confirm if this item should be part of the proposal and under which CLIN?	The description and quantities in the Bidding Sheets and SRS have been updated and will be released in an amendment to the IFB..
158	Book II part IV SRS Annex A - A.1.45	According to Book I Annex A Bidding Sheets - CLIN Summary, the item - Media Converter Wallmount Bracket does not belong to any CLIN. Could the purchaser please confirm if this item should be part of the proposal and under which CLIN?	The description and quantities in the Bidding Sheets and SRS have been updated and will be released in an amendment to the IFB..
159	Book II part IV SRS Annex A - A.1.1.1	Can the purchaser please confirm if the following part number ISR4451-X/K9 is correct, instead of ISR4451-X-K9 ?	Per Cisco-published ordering guide the product SKU for Cisco ISR 4451-X should read ISR4451-X/K9 (reference https://www.cisco.com/c/en/us/products/collateral/routers/4000-series-integrated-services-routers-isr/guide_c07-728759.html) . Different sources might indicate the same component as ISR44510X-K9.Both versions are correct.
160	Book II part IV SRS Annex A - A.1.1.3	Can the purchaser please confirm if the following part number PVD4-256= is correct, instead of PVD4-4-256 ?	The requirement should be understood as the routers foreseen for the voice&video function as specified in the project documentation should be equipped with the 256-channels DSP module. The product SKU indicated in Cisco Commerce tools is PVD4-256= . Different sources might indicate the same component as PVD4-4-256, the reference information for the required component can be found in Table 1 on the following official source https://www.cisco.com/c/en/us/products/collateral/routers/4000-series-integrated-services-routers-isr/data_sheet_c78-728307.html

161	Book II part IV SRS Annex A - A.1.1.4	Can the purchaser please confirm if the following part number PVDM4-128= is correct, instead of PVDM-4-128 ?	The requirement should be understood as the routers foreseen for the voice&video function as specified in the project documentation should be equipped with the 128-channels DSP module. The product SKU indicated in Cisco Commerce tools is PVDM4-128= . Different sources might indicate the same component as PVDM-4-128, the reference information for the required component can be found in Table 1 on the following official source https://www.cisco.com/c/en/us/products/collateral/routers/4000-series-integrated-services-routers-isr/data_sheet_c78-728307.html
162	Book II part IV SRS Annex A - A.1.1.5 and A.1.1.6	Can the purchaser please confirm if the following part number NIM-2MFT- T1/E1= is correct , instead of NIM-2MFT-T1/E1 ?	The requirement should be understood as the routers foreseen for the voice&video function as specified in the project documentation should be equipped with the 2 port Multiflex Trunk Voice/Clear-channel Data T1/E1 Module. The product SKU indicated in Cisco Commerce tools is NIM-2MFT-T1/E1=. Different sources might indicate the same component as NIM-2MFT-T1/E1, the reference information for the required component can be found in Table 9 on the following official source https://www.cisco.com/c/en/us/products/collateral/routers/4000-series-integrated-services-routers-isr/data_sheet_c78-728308.html
163	Book II part IV SRS Annex A - A.1.1.7	Can the purchaser please confirm if the following part numbers SL-44-SEC- K9= and FL-44-HSEC-K9= are correct, instead of SL-44-SEC-K9 and FL-44- HSEC-K9 ?	The requirement should be understood as the routers foreseen for the unclassified network deployment should be capable of performing high-speed IPSEC operations which is enabled by activation of Security License for Cisco ISR 4400 Series and U.S. Export Restriction Compliance license for 4400 series as indicated in the SRS bullet A.1.1.7 . The product SKUs indicated in Cisco Commerce tools are SL-44-SEC- K9= and FL-44-HSEC-K9= but different sources might indicate the same component as SL-44-SEC- K9 and FL-44-HSEC-K9. Both versions are correct.
164	Book II part IV SRS Annex A - A.1.1.8	Can the purchaser please confirm if the following part number SL-44-UC-K9= is correct, instead of SL-44-UC-K9 ?	The requirement should be understood as the routers foreseen for the voice&video function as specified in the project documentation should be capable of performing Unified Communications operations which is enabled by activation of Unified Communication License for Cisco ISR 4400 Series as indicated in the SRS bullet A.1.1.8 . The product SKUs indicated in Cisco Commerce tools are SL-44-UC- K9= but different sources might indicate the same component as SL-44-UC- K9. Both versions are correct.
165	Book II part IV SRS Annex A - A.1.3.1	Can the purchaser please confirm if the Item# 15-19 can be removed from the table [18] ? It seems that these items are already included under Item# 1 - 5.	The specifications and quantities in the SRS and bidding sheets have been updated and will be released in an amendment to the IFB.

166	Book II part IV SRS Annex A - A.1.3.2	Can the purchaser please confirm if the following part number GLC-SX- MMD= is correct, instead of GLC-SX-MMD ?	The requirement should be understood as the Cisco-supported SFP module capable of 1Gbps operation with the multimode fiber patchcord with LC termination. The compatible product indicated in Cisco Commerce tools is GLC-SX-MMD= but different sources might indicate the same component as GLC-SX-MMD. Both versions are correct.
167	Book II part IV SRS Annex A - A.1.3.3	Can the purchaser please confirm if the following part number GLC-SX- MMD= is correct, instead of GLC-SX-MMD ?	The requirement should be understood as the Cisco-supported SFP module capable of 1Gbps operation with the multimode fiber patchcord with LC termination. The compatible product indicated in Cisco Commerce tools is GLC-SX-MMD= but different sources might indicate the same component as GLC-SX-MMD. Both versions are correct.
168	Book II part IV SRS Annex A - A.1.3.6	The required part number S9300UK9-169 is EoL. Could the purchaser please confirm that S9300UK9-1612 (the latest Cisco Catalyst 9300 XE version 16.12) can be offered instead?	The latest version is acceptable.
169	Book II part IV SRS Annex A - A.1.3.7	The required part number S9300UK9-169 is EoL. Could the purchaser please confirm that S9300UK9-1612 (the latest Cisco Catalyst 9300 XE version 16.12) can be offered instead?	The latest version is acceptable.
170	Book II part IV SRS Annex A - A.1.4.1	Could the purchaser please confirm if the following number SVG450UK9- 1612 (the latest version of Cisco VG450 Series IOS XE) can be offered instead of SVG450UK9-1610 (older version)?	The latest version is acceptable.
171	Book II part IV SRS Annex A - A.1.4.2	The required IOS version(156-3.M) required under Item# 3, is lower than the actual one (159-3.M). Could you please confirm that part number SVG3XUK9-15903M (latest version) can be offered instead of SVG3XUK9- 15603M?	The latest version is acceptable.
172	Book II part IV SRS Annex A - A.1.5	The quantity specified in the table [34] for Cisco IP Phone 8841 is 400. However, the total quantity for NU VOIP phone specified in CLIN Summary is 381 (127 under CLIN 6.6.26 and 254 under CLIN 12.1.13). Please clarify what is the correct quantity required for Cisco IP Phone 8841 and UCL Licences.	The quantity of items required is 381. The information in table [34] has been updated and should be understood as per-unit configuration.
173	Book II part IV SRS Annex A - A.1.7.3	According to Annex A Bidding Sheets - CLIN Summary, the total quantity of SFP Modules (Access 1Gb short) is 1,178. However, the same type of SFP modules are already specified in the following systems A.1.3.2 Access Switch Large (SFP) and A.1.3.2 Access Switch Small (SFP) with a total quantity of 1.284. Could the purchaser please confirm what is the total quantity of the required SFP modules (GLC-SX-MMD) ?	The bidder shall provide SFPs when specified as a subcomponent of a major equipment assembly as well as when they are separately specified as a separate component in the SRS and with the quantities specified in the SRS and Bidding Sheets.
174	Book II part IV SRS Annex A - A.1.4.1	Can the purchaser please confirm if the Gigaset DA-710 included part of the VG configuration (as item# 18) is in addition to the Analogue phones specified under CLIN 6.6.27 and CLIN 12.1.14.	The Gigaset DA-710 phones included in the VG configuration should be treated separately from CLIN 6.6.27 and CLIN 12.1.4
175	Book II part IV SRS Annex A - A.1.4.2	Can the purchaser please confirm if the Gigaset DA-710 included part of the VG configuration (as item# 10) is in addition to the Analogue phones specified under CLIN 6.6.27 and CLIN 12.1.14.	The Gigaset DA-710 phones included in the VG configuration should be treated separately from CLIN 6.6.27 and CLIN 12.1.4
176	03_IFB-CO-15049-BIT1_Book I - Annex A Bidding Sheets	In the Bidding Sheet the description for CLIN 6.2.4 contradicts with the SOW reference A.1.3.4 (either description should reference Access Switch Large (UTP) COTS, or SOW reference should be A.1.3.5). Please clarify.	Reference for CLIN 6.2.4 corrected in the bidding sheet

177	03_IFB-CO-15049-BITI_Book I - Annex A Bidding Sheets	In the Bidding Sheet the description for CLIN 6.2.5 contradicts with the SOW reference A.1.3.5 (either description should reference Access Switch Small (UTP) COTS, or SOW reference should be A.1.3.3). Please clarify.	The reference for CLIN 6.2.5 is corrected in the bidding sheet
178	03_IFB-CO-15049-BITI_Book I - Annex A Bidding Sheets	In the Bidding Sheet the description for CLIN 6.4.3 is incorrect (the description should reference Access Switch Small (UTP) COTS). Please clarify.	CLIN 6.4.3 should read Access Switch Small (UTP) COTS and reference SOW A.1.3.5 is correct
179	03_IFB-CO-15049-BITI_Book I - Annex A Bidding Sheets	In the Bidding Sheet the description for CLIN 6.1.44 contradicts with the SOW reference A.1.33 (either description should reference A3 Printer, or SOW reference should be A.1.31 or A.1.38). Please clarify.	The specifications and quantities in the SRS and bidding sheets have been updated and will be released in an amendment to the IFB.
180	03_IFB-CO-15049-BITI_Book I - Annex A Bidding Sheets	In the Bidding Sheet the description for CLIN 6.6.55 contradicts with the SOW reference A.1.33 (either description should reference A3 Printer, or SOW reference should be A.1.31 or A.1.38). Please clarify.	The description and quantities in the Bidding Sheets and SRS have been updated and will be released in an amendment to the IFB..
181	03_IFB-CO-15049-BITI_Book I - Annex A Bidding Sheets	In the Bidding Sheet the description for CLIN 6.1.45 contradicts with the SOW reference A.1.34 (either description should reference A0 Plotter, or SOW reference should be A.1.32 or A.1.33). Please clarify.	The description and quantities in the Bidding Sheets and SRS have been updated and will be released in an amendment to the IFB..
182	03_IFB-CO-15049-BITI_Book I - Annex A Bidding Sheets	In the Bidding Sheet the description for CLIN 6.1.47 contradicts with the SOW reference A.1.34 (either description should reference A0 Plotter, or SOW reference should be A.1.32 or A.1.33). Please clarify.	The description and quantities in the Bidding Sheets and SRS have been updated and will be released in an amendment to the IFB..
183	03_IFB-CO-15049-BITI_Book I - Annex A Bidding Sheets	In the Bidding Sheet the description for CLIN 6.6.56 contradicts with the SOW reference A.1.34 (either description should reference A0 Plotter, or SOW reference should be A.1.32 or A.1.33). Please clarify.	The description and quantities in the Bidding Sheets and SRS have been updated and will be released in an amendment to the IFB..
184	Book II part IV SRS Annex A - A.1.31 and A.1.38	Description and specification of the systems specified under SRS A.1.31 and A.1.38 are identical. Please clarify the duplication or remove one of the A4 Printer specifications.	The description and quantities in the Bidding Sheets and SRS have been updated and will be released in an amendment to the IFB..
185	Book II part IV SRS Annex A - A.1.32 and A.1.33	Description and specification of the systems specified under SRS A.1.32 and A.1.33 are identical. Please clarify the duplication or remove one of the A3 Printer specifications.	The description and quantities in the Bidding Sheets and SRS have been updated and will be released in an amendment to the IFB..
186	Book II part IV SRS Annex A - A.1.35	The Description for the system specified under SRS A.1.35 is A0 Plotter + Media Converter. However, the technical specification requirements are for A1 Plotter (item#1 from the specification table). Please clarify and update the Description or Technical Specification.	The description and quantities in the Bidding Sheets and SRS have been updated and will be released in an amendment to the IFB..

187	03_IFB-CO-15049-BITI_Book I - Annex A Bidding Sheets	CLIN 6.1.48 - In the Bidding Sheet the SOW reference seems to be incorrect for the A0 Plotter (should refer to A.1.34)	The description and quantities in the Bidding Sheets and SRS have been updated and will be released in an amendment to the IFB..
188	03_IFB-CO-15049-BITI_Book I - Annex A Bidding Sheets	CLIN 6.1.49 - In the Bidding Sheet the SOW reference seems to be incorrect for the A1 Plotter (should refer to A.1.35)	The description and quantities in the Bidding Sheets and SRS have been updated and will be released in an amendment to the IFB..
189	03_IFB-CO-15049-BITI_Book I - Annex A Bidding Sheets	CLIN 6.1.50 - In the Bidding Sheet the SOW reference seems to be incorrect for the Digital Sender (should refer to A.1.36)	The description and quantities in the Bidding Sheets and SRS have been updated and will be released in an amendment to the IFB..
190	03_IFB-CO-15049-BITI_Book I - Annex A Bidding Sheets	CLIN 6.1.57 - In the Bidding Sheet the SOW reference seems to be incorrect for the Digital Sender (should refer to A.1.36)	The description and quantities in the Bidding Sheets and SRS have been updated and will be released in an amendment to the IFB..
191	03_IFB-CO-15049-BITI_Book I - Annex A Bidding Sheets	CLIN 6.6.58 - In the Bidding Sheet the SOW reference seems to be incorrect for the Projector Large (should refer to A.1.37)	The description and quantities in the Bidding Sheets and SRS have been updated and will be released in an amendment to the IFB..
192	03_IFB-CO-15049-BITI_Book I - Annex A Bidding Sheets	In the Bidding Sheet the SOW reference seems to be incorrect for the Projector Large (should refer to A.1.37)	The description and quantities in the Bidding Sheets and SRS have been updated and will be released in an amendment to the IFB..
193	Book II part IV SRS Annex A - A.1.37	Please clarify the quantity and length of HDMI cables to be provided with Projector Large (item#8).	The description and quantities in the Bidding Sheets and SRS have been updated and will be released in an amendment to the IFB..
194	Book II part IV SRS Annex A - A.1.37	Please clarify if there is a requirement for network connectivity.	The equipment specifications are described in the SRS
195	Book II part IV SRS Annex A - A.1.39	Please clarify the quantity and length of signal cable(s) to be provided with Projector Medium	The description and quantities in the Bidding Sheets and SRS have been updated and will be released in an amendment to the IFB..
196	Book II part IV SRS Annex A - A.1.39	Please clarify if there is a requirement for network connectivity.	The equipment specifications are described in the SRS
197	Book II part IV SRS Annex A - A.1.340	Please clarify the quantity and length of signal cable(s) to be provided with Projector Small.	The description and quantities in the Bidding Sheets and SRS have been updated and will be released in an amendment to the IFB..
198	Book II - Part IV SOW Annex A SRS 3.4.2, 3.4.2.2 [147]	Can the purchaser please confirm if all Printers/Plotters/Scanners shall be configured to provide secure access via a card reader? Please clarify which type of devices and how many of them should be considered as "Secure Printer".	All Printers/Plotters/Scanners shall be configured to provide secure access via a card reader. The specifications for these types of equipment in the SRS has been updated.

199	Book II - Part IV SOW Annex A SRS 3.4.2, 3.4.2.2 [147]	Can the purchaser please confirm if the proposal should also include the Hardware items (Smart Card Readers) and Safecom Client Licences for all secure printers or these items should be considered as PFE since they are not specified as part of any system in - Book II part IV SRS Annex A ?	Yes the proposal shall include the hardware items. The specifications for these types of equipment in the SRS has been updated.
200	Book II part II - Special contract provisions - 3.3	Purchaser requested for which site it requires permanent onsite support and maintenance.	No permanent on-site support required. The IFB documentation has been modified to reflect the information in Amendment 2
201	Book II part II - Special contract provisions - 3.4	Purchaser requested to detail the requirements for this support?	No permanent on-site support required. The IFB documentation has been modified to reflect the information in Amendment 2
202	Book II part II - Special contract provisions - 3.4	Purchaser requested to detail the locations the support is required?	No permanent on-site support required. The IFB documentation has been modified to reflect the information in Amendment 2
203	Book II part II - Special contract provisions - 4.2	The Purchaser is requested to make an exclusion of this clause for the HW it has specified by brand and type in the SRS as equipment is identified by the Purchaser	No, the name brand does not affect the deliverable of the overall package.
204	Book II part II - Special contract provisions - annex A and Book II part IV - Annex C	The contract provisions seem to indicate that the ILSM and technical writer are a combined role, while Annex C of SoW seems to indicate separate individuals. Purchaser to confirm which statement prevails.	Multiple individuals can meet 1 key personnel requirement as well as a profile can meet multiple key personnel requirements as long as delivery of the project is not impacted.
205	Book II part IV SoW- 1.1.3	Requirement 1.1.3 show that Engineering Support is part of Optional LoE while the Bidding Sheets show this Engineering Support to be part of the Base Contract. Can the Purchaser please clarify this?	Engineering support is optional on the quantity of TO's that will be requested during the contract. Man hour/day and other costs associated with the work to be performed will still be evaluated.
206	Book II part IV SoW- Table 1	Purchaser requested to confirm whether Camp Novo Selo is located in Kosovo and not in North Macedonia as indicated.	Correct. Corrected in Amendment 2 SOW
207	Book II part IV SoW- section 2	Purchaser is requested if it will make all reference documents available to the bidder at contract award. Please confirm	The Purchaser shall make all applicable reference documents available to the bidder at contract award.
208	Book II part IV SoW- 3.2	The milestone of having achieved the procurement, tempesting and delivery completed by week 10 EDC for Film City seems impossible to the bidder. Procurement of HW cannot start until detailed design and PMP are approved by the purchaser. Even if the bidder would take a risk and procure after SS in week 4, it is still impossible to procure, ship, Tempest and deliver within 6 weeks. Furthermore it is unclear why the HW should be delivered so far ahead of PSA. Purchaser requested to update the delivery date requirements in SoW and Bidding Sheets.	The purchaser shall place orders for equipment at, or shortly after contract award for most of the equipment.
209	Book II part IV SoW- 3.2 and Bidding Sheets CLIN 2	Purchaser requested to confirm if it considers the SS for all sites in Kosovo to be completed by week 4 EDC since the locations other than Pristina (Film City) are not listed in the Bidding Sheets?	Yes, refer to milestone 1 and 1.1
210	Book II part IV SRS Annex A - A1.56&57&58	Purchaser to confirm it will use its support agreement for the configuration of Polycom equipment or if Bidder needs to include costs for this Polycom service in its proposal.	The contractor shall perform equipment installation and configuration activities at the site so that remote administrators and Polycom support engineers can remotely access, manage and accept the systems.

211	Book I Annex A Bidding Sheets CLIN summary and Book II part IV SoW- 4.3.4	Purchaser is requested to identify which CLINs the labor for the Migration effort needs to be assigned per site.	Achieve PSA per applicable site
212	Book II part IV SoW- 3.2.11.1.1	Purchaser is requested to identify which CLINs the labor for the Migration effort needs to be assigned per site.	Achieve PSA per applicable site
213	Book II Part IV SOW Annex A SRS 3.1.1 - Rack Power Distribution [103]	Should the PDU be managed?	The specification does not require the PDU to be managed.
214	Book II Part IV SOW Annex A SRS 3.1.1 - Rack Power Distribution [101]	Additional cabling will need to be procured - is there an expectation to migrate all existing HW to IEC C14?	Existing rack mounted equipment has C14 power cables.
215	Book II Part IV SOW Annex A SRS 3.2 [112] and [113]	Is the scope of cabling limited to inter-rack cabling or is it expected to append PFE inter-room Vertical cabling and/or End User Horizontal Cabling ?	The requirements for cabling are described in SRS 3.2
216	Book II Part IV SOW Annex A SRS 3.3.4 - 3.5.3 - 3.6.3 - 3.7.3 - 3.8.4 [136] [185] [190] [202] [239]	Is dedicated engineering support at SHAPE required or is this just to be considered local site support	The question is not understood, please re-phrase the question.
217	Book II Part IV SOW Annex B	What quantities of PFE are to be installed?	Quantities of PFE equipment and services will be identified during site surveys!
218	Book II - Part IV SOW Annex A SRS 3.4.2 3.4.2.1 [143]	Is the mentioned software image expected to be installed only on the laptops that are to be delivered within this contract?	The software image shall be installed on the workstations and laptops provided by this project.

219	Book II - Part IV SOW Annex A SRS A.1.49	Is the bidder expected to install the Symantec Mail protection licenses on end-user devices?	Symantec Mail protection will be incorporated into the client software image and installed on the workstations and laptops provided by this project.
220	SOW Annex C.2.4	Does NCIA require the VMWare Certified Professional (VCP) role to be available for consultation and the performing of Engineering services throughout the total contract period?	Yes the continuity of the VCP role is described in paragraph C.1.1.
221	Book II Part IV SOW Annex A.1.28 and A.1.29	For these products, a manufacturer is specified. Are we right in assuming that another manufacturer can be offered here as well, who exceeds the requirements of the products, has a higher efficiency, thus reducing running costs and is also competitive in price? With regard to a competition-friendly tendering procedure, we ask for your agreement.	No. The IFB documentation has been modified to reflect the information in Amendment 2. Some of the named brands have been removed. The remaining will need to be offered as requested.
222	Part IV, Statement of Work, Annex A, System Requirement Specification	According to paragraph A.1.18 there is a demand for Rack UPS (Large, server rooms), 6kVA and 8kVA. It is specified that it shall be from a specific manufacturer. Are we right in assuming that another manufacturer who would exceed the requirements of the products, will have higher efficiency thus reducing the operating costs and would be fairly competitive in price as well, can be offered, too? Regarding the price / earnings ratio, it would be beneficially for a competition friendly tendering procedure and therefore we ask for your agreement.	The SRS has been amended in Amendment 2 J224:J230J224:J231J224:J233J224:J234J224:J235J224J224:J245
223	[61] [80] [208]	The XML-Labeling Guards are placed in KFOR. Is it correct to assume that there is no geographic redundant solution (e.g.in NHQ Sa/EUFOR)?	Correct. There is no geographic redundant solution for the XML-Labeling Guards.
224	[61] [80] [208]	In case a geographic redundant solution is needed for the XML-Labeling Guard. Is the solution placed in the second location 100% identical as one in the main location KFOR?	Not applicable. See preceding answer.
225	3.8.3 [213]	Why should the XLG filter data from LOW to HIGH under integrity and availability considerations when this functionality is provided by the Firewalls in front of the XLG CDS?	See SRS requirement [212](6)(b) for integrity and availability protection of resources in the high domain when transferring HTTP messages received from the low domain.
226	3.8.3 [221](13)e	In the Adatp-4778 is made a reference to the NCIA TN1491 for the SOAP binding. Should the XML-Labeling Guard support the SOAP binding as defined in NCIA TN1491?	Correct. The XML-Labeling Guard must support the SOAP binding profile as defined in TN-1491.
227	3.8.3 [221](13)f	In the Adatp-4778 is made a reference to the NCIA TN1491 for the REST binding. Should the XML-Labeling Guard support the REST binding as defined in NCIA TN1491?	Correct. The XML-Labeling Guard must support the REST binding profile as defined in TN-1491.
228	3.8.3 [225](6)	Since NATO lists HTTP body messages with a size up to 10 GB as a SHALL requirement and large HTTP messages are not bigger than 1 GB, can the 10 GB be considered a "nice to have" requirement?	SRS Requirement [214](1)(e) defines "Very large HTTP messages" as having an average message size of 1GB; therefore, message sizes above 1GB must be supported. SRS requirement [213](6) states the XLG shall support the information exchange of HTTP messages with body size up to 10 GB.

229	3.8.3 [226](1)a	Do all the 70.000 very small HTTP messages need label validation?	Performing label validation on very small HTTP messages is a valid performance use case; however, performance requirements are not based on all messages undergoing the same policy enforcement. SRS requirement [214](2)(a) states the required processing time for a very small HTTP message is less than 200 milliseconds.
230	A.1.21	Why was the "Nexor Sentinel version 3.6" specified? The product lacks any formal NATO member state government information security authority accreditation up to national SECRET or NATO SECAN accreditation up to NATO SECRET. The mail guard, security labelling and domain filter uses Red Hat Enterprise Linux 5. This is a very old operating system which will be out of extended life support on 30 November 2020. Besides that, the security certification ISO/IEC 180045 (CC EAL4+) elapses on 21.12.2022.	Please refer to SRS paragraph [84]. Version 3.6 of the Nexor Sentinel uses Red Hat Enterprise Linux 6.
231	3.8.3	Did the functionality of the Nexor Sentinel version 3.6 influence cross domain solution requirements listed under 3.8.3?	No, the mail guard does not influence the XML-Labeling Guard requirements in SRS section 3.8.3.
232	A.1.23	Stated is as quantity 1 XLG. HA-requirements [229](1) or the performance requirements [226] may require more than one XLGs. May the offered solution contain more than 1 XLG eventually when needed with load-balancers?	CLIN 6.1.34 states that the Contractor must deliver two XML-Labeling Guards to Pristina - Camp Film City. However, the requirements in SRS section 3.8.3 apply to a single XML-Labeling Guard.
233	A1.23 (11)	Does Cross Domain Solution have to be approved for NATO SECRET?	As per SRS requirement [225], the XML-Labeling Guard is required to be evaluated against Common Criteria (CC) Evaluation Assurance Level (EAL) 4+ or national equivalent and be capable of being configured in accordance with Technical and Implementation Directive on CIS Security [NAC AC/322-D/0048-REV3, 2019]. As per SRS section A.1.23, the XML-Labeling Guard must be included in the NATO Information Assurance Product Catalogue (NIAPC) (http://www.ia.nato.int/niapc), as a Security Enforcing Product.
234	A1.23 (11)	Does Cross Domain Solution have to be accredited for NATO SECRET?	The XML-Labeling Guard product does not require security accreditation. The interconnection via the IEG-C solution, of which the XLG is a component, will be subject to accreditation during the project.
235	3.8.3	Does XML-Labeling Guard need to filter data sent via UDP?	There is no specific requirement for the XML-Labeling Guard to filter data sent via UDP.
236	3.8.3	Does the XML-Labeling Guard need to support ADEXP?	There is no specific requirement for the XML-Labeling Guard to support ADEXP.

237	3.8.3	Does the XML-Labeling Guard need to support NMEA?	There is no specific requirement for the XML-Labeling Guard to support NMEA.
238	3.8.3	Does the XML-Labeling Guard need to support LINK16?	There is no specific requirement for the XML-Labeling Guard to support LINK16.
239	3.8.3	Does the XML-Labeling Guard need to support ADatP-3?	There is no specific requirement for the XML-Labeling Guard to support ADatP-3.
240	3.8.3	Does the XML-Labeling Guard need to support ASTERIX?	There is no specific requirement for the XML-Labeling Guard to support ASTERIX.
241	3.8.3	Does the XML-Labeling Guard need to support DIS?	There is no specific requirement for the XML-Labeling Guard to support DIS.
242	3.8.3	Does the XML-Labeling Guard need to support HLA?	There is no specific requirement for the XML-Labeling Guard to support HLA.
243	02_IFB-CO-15049-BITI_Book I	In the document 02_IFB-CO-15049-BITI_Book I-Bidding Instructions, Nr. 3.6.6.1.5.5.2., it is stated that	This is a misinterpretation of the wording. The requirement should be understood to mean that bidders are to generate an RTM of the Bidders are to generate their own RTM meeting the requirements of 3.6.6.1.5.5.2 ;3.6.6.1.5.5.3; and 3.6.6.1.5.5.4. Which for ease of evaluation shall use the title "2_IFB-CO-15049-BITI_Book I- Requirements Traceability Matrix" in excel format. No Blank RTM will be provided by the Purchaser
244	09_IFB-CO-15049-BITI_Book II - Part IV SOW Annex A System Requirements Specifications	A.1.19 Virtual Loadbalancers Can You explain how did you plan to do TEMPEST C on a virtual loadbalancing, because this is virtual device? In the technical specification for load balancing You describes load balancing Virtual-F5-LTM BEST with WAFs and BIG-IP Virtual Edition: Local Traffic Manager 200 Mbps (v11.6.x - v16.x), please answer us if to offer separate licenses for BIG-IP Virtual Edition: Local Traffic Manager 200 Mbps (v11.6.x - v16.x) since LTM functionality is already within Virtual-F5-LTM BEST with WAFs? Please clarify which license is required for Virtual-F5-LTM BEST with WAF, 200Mbps or 1Gbps?	The Virtual Loadbalancer software will be installed on servers which will be TEMPEST certified. Basic Licences for foundation functionality shall be offered.

<p>245</p>	<p>09_IFB-CO-15049-BITI_Book II - Part IV SOW Annex A System Requirements Specifications 03_IFB-CO-15049-BITI_Book I - Annex A Bidding Sheets (MS Excel)</p>	<p>2.6.1 NU Telephony Architecture – Bosnia only A.1.4.1 Analogue Voice Gateway (large) A.1.4.2 Analogue Voice Gateway (medium) A.1.6 NU Analogue phone (NATO Users only) 6.6.27 NU Analogue phone (NATO Users only) 12.1.14 NU Analogue phone (EUFOR Users only)</p> <p>Comparing the quantities of Gigaset DA-710 analog telephones in documents 03_IFB-CO-15049-BITI_Book I - Annex A Bidding Sheets (MS Excel) and 09_IFB-CO-15049-BITI_Book II - Part IV SOW Annex A System Requirements Specifications we came to the conclusion that the quantities do not match. Can you accurately define the required quantities of analog phones?</p> <p>Are the analogue telephones are listed in 09_IFB-CO-15049-BITI_Book II - Part IV Annex A System Requirements Specifications (A.1.4.1. Analog voice gateway (large) and A.1.4.2 analog voice gateway (medium) independent of analogue telephones - A.1.6 NU analogue telephone (for NATO users only)?</p>	<p>This question has been answered already in the previous Clarification Response documents. The analogue phones Gigaset DA-710 included in the Analogue Voice Gateway setup are separate from the order of the same product as a standalone CLIN. The total quantity is a sum of the stand-alone analogue phone CLIN and those included in the Analog Voice Gateway bundle according to formula Qty_Analog_Gateways x Qty_Analog_phones_per_Gateway.</p>
<p>246</p>	<p>09_IFB-CO-15049-BITI_Book II - Part IV SOW Annex A System Requirements Specifications</p>	<p>A.1.2.1 Data Center Switch A.1.2.2 Data Center Top-of-Rack (TOR) switch Can you explain in more detail exactly how much SFP+/QSFP+ solution (transceivers / passive copper direct attach cables) is required? For example: For the A.1.2.1 Data Center Switch it was requested: - Dell Networking, Transceiver, 40GbE QSFP+ SR4, MTP, MMF – 2 pcs - Dell Networking, Transceiver, 40GbE QSFP+ LR4, MTP, SMF – 2 pcs In the end of the specification You put disclaimer: Lines 2 and 3 present different QSPF+ solution options for the inter-switch connectivity and are given here for the reference purposes. Different combinations of these might be required depending on the local requirements. The same is for the A.1.2.2 Data Center Top-of-Rack (TOR) switch</p>	<p>The disclaimer refers to possible adjustments to order after the contract is awarded. For the bidding process purposes, the numbers of the 40GbE QSFP+ modules should be as stated in the SoW SRS Annex A: two units of each type, MMF and SMF.</p>

247	09_IFB-CO-15049-BITI_Book II - Part IV SOW Annex A System Requirements Specifications	<p>A.1.2.1 Data Center Switch</p> <p>A.1.2.2 Data Center Top-of-Rack (TOR) switch</p> <p>Can you explain to us how much warranty should be offered for points A.1.2.1 and A.1.2.2, 1 or 3 years?</p> <p>For example:</p> <p>For the A.1.2.1 Data Center Switch You asked:</p> <ul style="list-style-type: none"> - 1Yr Return to Depot - Minimum Warranty - INFO 1Yr ProSupport and 4hr Mission Critical - 3Yr ProSupport and 4hr Mission Critical <p>For the A.1.2.2 Data Center Top-of-Rack (TOR) switch You asked:</p> <ul style="list-style-type: none"> - 1Yr Return to Depot - Minimum Warranty - 3Yr ProSupport and 4hr Mission Critical 	<p>Both switches A.1.2.1 and A.1.2.2 should offer at least 1 year warranty. Regarding the support contract, the duration should be 3 years and as such the line "- INFO 1Yr ProSupport and 4hr Mission Critical" under A.1.2.1 should be disregarded.</p>
248	09_IFB-CO-15049-BITI_Book II - Part IV SOW Annex A System Requirements Specifications	<p>A.1.2.1 Data Center Switch</p> <p>The proposed Data Center Switch model has been declared end of sale by the manufacturer with the date 30.10.2020., and will no longer be available. Can You please recommend another switch model?</p> <p>From our side, the recommendation is the model Dell EMC S5232FON Switch, 32x100GbE QSFP28 ports, IO to PSU air, 2x PSU, OS10as a replacement for the Dell Networking S6010-ON, 1U, 32x 40GbE QSFP+, 2x AC PSUs,IO to PSU Airflow, OS9</p>	<p>Please refer to the guidance in Book II, Part II – Special Contract Provisions, clause 14.1. "If any COTS products specified in the Contract are upgraded or discontinued by their original providers for commercial or technological reasons, the Contractor shall propose their substitution by the new versions that are intended as market replacement of the original products. The proposed items shall provide an equivalent or enhanced performance without a price or life-cycle support cost increase and the Contractor shall be responsible for the installation, integration and transition of data and information to the new version."</p>
249	09_IFB-CO-15049-BITI_Book II - Part IV SOW Annex A System Requirements Specifications	<p>A.1.2.2 Data Center Top-of-Rack (TOR) switch</p> <p>The proposed Data Center Top-of-Rack (TOR) switch model has been declared end of sale by the manufacturer with the date 31.12.2020., and will no longer be available. Can You please recommend another switch model?</p> <p>From our side, the recommendation is the model Dell EMC Switch S4148F-ON, 1U, 48x10GbE SFP +, 4xQSFP28, 2xQSFP +, IO to PSU, 2 PSU, OS10 as a replacement for the Dell Networking S4048-ON, 48x 10GbE and 6x 40GbE QSFP+ ports,IO to PSU air, 1x AC PSUs, DNOS9.</p>	<p>Please refer to the guidance in Book II, Part II – Special Contract Provisions, clause 14.1. "If any COTS products specified in the Contract are upgraded or discontinued by their original providers for commercial or technological reasons, the Contractor shall propose their substitution by the new versions that are intended as market replacement of the original products. The proposed items shall provide an equivalent or enhanced performance without a price or life-cycle support cost increase and the Contractor shall be responsible for the installation, integration and transition of data and information to the new version."</p>

250	09_IFB-CO-15049-BITI_Book II - Part IV SOW Annex A System Requirements Specifications	<p>A.1.8 Virtual Host Server and Storage (Large) A.1.9 Virtual Host Server and Storage (Medium) A.1.10 Virtual Host Server and Storage (Small) A.1.12 Virtual Host Witness Server A.1.13 Physical Server (Domain Controller) A.1.14 Backup Server (Large) A.1.15 Backup Server (Small)</p> <p>In all server configurations stated form points A.1.8 through A.1.15 the needed 10G network adapter is Ethernet 10Gb 2-port 562FLR-SFP+. We would like to inform the Contractor that the listed adapter has retired on 17th August 2018 and that it cannot be configured in Hpe servers any more. We kindly ask the Contractor to provide us with suggested replacement 10G network adapter.</p>	<p>When the manufacturer has retired or no longer supports a specified sub-component then the Bidder shall offer the manufacturer's replacement sub-component that is an equivalent or higher specification than the one requested.</p>
251	09_IFB-CO-15049-BITI_Book II - Part IV SOW Annex A System Requirements Specifications	<p>A.1.14 Backup Server (Large) A.1.15 Backup Server (Small)</p> <p>We would like to inform the Contractor that backup server requested configuration (A.1.14 – A.1.15) is referencing to the Proliant 8SFF server chassis but the 8SFF chassis is only suitable for SFF 2,5 " drives and requested 12TB drives are only configurable in 12LFF chassis which can withhold 3,5" drives. Also the 12 LFF chassis doesn't support the requested Universal Media Bay Kit.</p>	<p>Item (20) of the specification includes a requirement for an external storage enclosure where the LFF drives shall be installed.</p>
252	09_IFB-CO-15049-BITI_Book II - Part IV SOW Annex A System Requirements Specifications	<p>A.1.17 Tape Library</p> <p>Considering the point A.1.17 Tape Library, we would like to inform the Contractor that the requested referent model MSL4048 is no longer available on the market and that the technical replacement comes in terms of the new Tape Library model MSL3040. The 3040 model comes with support for three tape drives maximum. If that is not suitable for the Contractor the MSL6480 can support the 42 drives maximum. we kindly ask Contractor to change the request for MSL Tape Library.</p>	<p>Please refer to the guidance in Book II, Part II – Special Contract Provisions, clause 14.1. "If any COTS products specified in the Contract are upgraded or discontinued by their original providers for commercial or technological reasons, the Contractor shall propose their substitution by the new versions that are intended as market replacement of the original products. The proposed items shall provide an equivalent or enhanced performance without a price or life-cycle support cost increase and the Contractor shall be responsible for the installation, integration and transition of data and information to the new version."</p>
253	09_IFB-CO-15049-BITI_Book II - Part IV SOW Annex A System Requirements Specifications	<p>A.1.27 Rack Peripherals (KVM, KVM Switch)</p> <p>Considering the point A.1.27 Rack Peripherals (KVM, KVM Switch) we kindly ask the Contractor to define which KVM adapters are needed for connecting servers to KVM switch and in which quantities.</p>	<p>A.1.27 Item 2 specifies 16 x KVM USB Adapters. These adapters shall include a VGA connector.</p>

254	02_IFB-CO-15049-BITI_Book I-Bidding Instructions	<p>B.12. Certificate of Origin of Equipment, Services, and Intellectual Property</p> <p>In paragraph B.12. Certificate of Origin of Equipment, Services, and Intellectual Property under bullet (b) is a requirement:</p> <p>No material or items of equipment down to and including identifiable sub-assemblies shall be manufactured or assembled by a firm other than from and within a participating NATO member country. A subassembly is defined as a portion of an assembly consisting of two or more parts that can be provisioned and replaced as an entity;</p> <p>Almost all projectors that satisfied required technical specifications are manufactured by company outside of the NATO country. Could you please confirm that projector modified and TEMPEST certified by company from the NATO country is acceptable?</p>	Confirmed
255	03_IFB-CO-15049-BITI_Book I - Annex A Bidding Sheets (MS Excel)	<p>Is offering of OPTIONAL CLINS - Non Evaluated (13, 14) mandatory? For CLINS 14,1 Iphone 11 Pro Max and 14,2 Ipad Pro 12.9 inch requirement is:</p> <p>Devices have to be purchased directly from Apple or Apple Authorized Resellers / Carrier that are participating on the Apple Device Enrolment Program.</p> <p>This means that the potential bidder needs to be either Apple or Apple Authorized Resellers. Because of this we suggest that offering OPTIONAL CLINS - Non Evaluated (13, 14) is not mandatory to offer</p>	The question mis-interprets the requirement. The Bidder may purchase devices from an Apple Authorised Reseller such as an Apple store that can enroll the device.
256	09_IFB-CO-15049-BITI_Book II - Part IV SOW Annex A System Requirements Specifications	<p>A.1.37 Projector (Large, 5000 Lumens)</p> <p>Regarding technical specification of „ A.1.37 Projector (Large, 5000 Lumens)”, HDMI KVM (1 output, 4 inputs).</p> <p>Could you please confirm that you are looking for an external HDMI KVM that has 1 output and 4 inputs?</p>	The question mis-interprets the requirement. The Bidder may purchase devices from an Apple Authorised Reseller such as an Apple store that can enroll the device.
257	Book II part IV SRS Annex A - A.1.20	<p>Minimum requirements specified in A.1.20, under item# 20, includes "Threat detection software".</p> <p>The same Feature requirement is specified separately in A.1.22 (item#2) as "Threat Prevention service". Could the purchaser please confirm if the Feature "Threat detection" needs to be offered as system component, integrated part of the proposed Firewall System (A.1.20)?</p>	SRS section A.1.20 item 20 refers to the Palo Alto Threat Prevention software, specified in SRS section A.1.22. The Palo Alto Threat Prevention software is an integrated part of the firewall in SRS section A.1.20. Palo Alto uses a service-based model for this software. In order for the software to operate, an annual subscription must be procured, and the software must be activated through the use of a valid activation code.
258	Book II part IV SRS Annex A - A.1.20	Reference described as "see section A.2.22" under item# 20 appears to be wrong, since there is no A.2.22 section in Annex-A. Could the purchaser please update the reference description?	The correct reference is A.1.22, as in the PDF version of the SRS.

259	Book II part IV SRS Annex A - A.1.22	Could the purchase please explain in more details what is the purpose of the required NIPS Licences described in A.1.22 and how these licences are planned to be installed?	The NIPS licences allow the firewalls described in SRS section A.1.20 to perform network-based intrusion prevention and detection. For each NIPS component, the Contractor must provide the Purchaser with a valid annual subscription licence including activation code. This is sufficient for both PFE and new firewalls. The Purchaser will activate and verify the validity of each licence provided by the Contractor.
260	Book II part IV SRS Annex A - A.1.22	Could the purchase please clarify the required quantity of the NIPS Licences (10 required as part of CLIN-6 and additional 2 required as part of CLIN-12)? Are these Licences going to be installed on any existing Firewall Systems and if yes, please provide more details about existing systems, including the System Model and Serial Number.	A total of 12 NIPS licences are required (10 required as part of CLIN-6 and additional 2 required as part of CLIN-12). Four of the NIPS licences in CLIN 6.1.33 are required for existing Palo Alto PA-3060 firewalls in HA configuration. Serial numbers can be provided after contract award.
261	Book II part IV SRS Annex A - A.1.22	Does the bidder need to offer 12 NIPS Licences for "Threat Prevention" in addition to the 9 that are included as part of Firewall System described in A.1.20?	No, a total of 12 NIPS licences are required, including 4 for existing firewalls and 8 for new firewalls. The firewall in CLIN 6.4.9 does not require a NIPS licence, but the firewall must still support the software in an unactivated state.
262	Book II part IV SRS Annex A - A.1.20	Could the purchase please confirm if the Panorama Management platform for the Palo Alto Firewalls should be considered as PFE or the Management Software needs to be part of the proposal?	The Panorama management platform for the Palo Alto firewalls is PFE and should not be part of the proposal.
263	Book II part IV SRS Annex A - A.1.20	If there is an existing Panorama Management platform, could the purchaser please confirm that the existing Licensing capacity is sufficient to integrate the 9 additional Firewalls required as A.1.20? Please use the following link for reference: https://docs.paloaltonetworks.com/panorama/9-0/panorama-admin/panorama-overview/panorama-models.html	The existing Panorama management platform has sufficient licensing capacity to integrate the additional firewalls.
264	Book II part IV SRS Annex A - A.1.20	Could the purchaser please confirm how many of the required Firewalls are planned to be used in a "cluster mode" and in what location?	Each pair of firewalls from CLINs 6.6.43, 6.6.44, 12.1.21, and 12.4.11 will be used as a high availability cluster.
265	Book II part IV SRS Annex A - A.1.20	Could the purchaser please confirm if the quantity of Item#13 and 18 are correct and that both type of interfaces are required (SFP+ short reach and SFP+ long reach)?	The Purchaser confirms that the quantities are correct and that both short reach (item 13) and long reach (item 18) are required.
266	Book II part IV SOW Annex A - SRS# 118 and Book II part IV SRS Annex A - A.1	"The support requirement for SNTC 8X5XNBD contradicts with the support requirement based on SSSNT 8X5XNBD specified in the A.1 Hardware and software Requirements. Could the purchaser please confirm what is the support type required for all Cisco equipment? Please use the following link for reference: https://www.cisco.com/c/en/us/about/legal/service-descriptions.html	The requested support contract should be in the Smart Net Total Care (SNTC) formula not the SSSNT formula.

267	Book II - Part IV Statement of Work Section 5.10.15. - Table 11 General Training / No of Participants	Referencing the courses detailed in Table 11 and the status of the following two trainings: 1. CISCO DCII has been replaced by DCFNDU. 2. CISCO DCICN has been replaced by DCCOR and ENCOR. Can the Purchaser please confirm that the DCII and DCICN trainings should be delivered with the replacement DCFNDU and DCCOR&ENCOR trainings and please update the requirement table?	This training requirement should no longer be valid following the decision that the Data Center element should be built based on the Dell switching equipment, not Cisco. The replacement product should be "Dell Networking Data Center Advanced Features & Administration Training"
268	Book II part IV SOW Annex A – SRS 3.8.3 and Book II part IV SRS Annex A - A.1.23	Can the Purchaser please specify the brand and model required for the XML Labelling Guard expected to be delivered as detailed in SRS 3.8.3 and A.1.23?	The Purchaser is unable to specify a brand and model for the XML-Labelling Guard.
269	Book II part IV SRS Annex A	Can the Purchaser please release the Approved Fielded Product List (AFPL) for all software/firmware versions requested in this IFB?	A review of AFPL will be carried out after contract award during the site surveys.
270	Part IV, Statement of Work, Annex A, System Requirement Specification	A.1.12 virtual host witness server, has only stated that it shall be "TEMPEST" but no specification which Level. In the Part IV, Statement of Work, Annex A System Requirement Specification, it says that the device shall be TEMPEST Level C. Are we right in assuming that the intended TEMPEST Level in the bidding sheet shall be "TEMPEST Level C"?	The server in CLIN 6.6.30 requires TEMPEST C certification.
271	Part IV, Statement of Work, Annex A, System Requirement Specification	A.1.19 Virtual Loadbalancers, it is requested in the specification requirements that this device shall have TEMPEST Level C. In the bidding sheets there is no indication whether it shall be COTS or TEMPEST Level C. Can you please verify if it shall be COTS or TEMPEST Level C?	The Virtual Loadbalancer software will be installed on servers which will be TEMPEST certified.
272	Part IV, Statement of Work, Annex A, System Requirement Specification	A.1.21 Mailguard + 1 Year Support, it is requested in the specification requirements that this device shall have TEMPEST Level C. In the bidding sheets there is no indication whether it shall be COTS or TEMPEST Level C. Can you please verify if it shall be COTS or TEMPEST Level C?	The Mailguards require TEMPEST C certification.
273	A.1.23 XML-Labelling Guard + 1 Year Support, it is requested in the specification requirements that this device shall have TEMPEST Level C. In the bidding sheets there is no indication whether it shall be COTS or TEMPEST Level C. Can you please verify if it shall be COTS or TEMPEST Level C?	A.1.23 XML-Labelling Guard + 1 Year Support, it is requested in the specification requirements that this device shall have TEMPEST Level C. In the bidding sheets there is no indication whether it shall be COTS or TEMPEST Level C. Can you please verify if it shall be COTS or TEMPEST Level C?	The XML-Labelling Guards require TEMPEST C certification.

274	A.1.57 NS VTC System – “small” room. In the bidding sheets it is not indicated whether the device shall be COTS or TEMPEST C. Can you please clarify whether COTS or TEMPEST C is requested?	A.1.57 NS VTC System – “small” room. In the bidding sheets it is not indicated whether the device shall be COTS or TEMPEST C. Can you please clarify whether COTS or TEMPEST C is requested?	The NS VTC System – “small” room from SRS section A.1.57 requires TEMPEST C certification.
275	A.1.58 NS VTC System – “large” room. In the bidding sheets it is not indicated whether the device shall be COTS or TEMPEST C. Can you please clarify whether COTS or TEMPEST C is requested?	A.1.58 NS VTC System – “large” room. In the bidding sheets it is not indicated whether the device shall be COTS or TEMPEST C. Can you please clarify whether COTS or TEMPEST C is requested?	The NS VTC System – “large” room from SRS section A.1.58 requires TEMPEST C certification.
276	A.1.2.2 Data Center Top-of-Rack (TOR) switch has no TEMPEST requirements. In the bidding sheets is TEMPEST C requested. Can you please clarify whether COTS or TEMPEST C is requested?	A.1.2.2 Data Center Top-of-Rack (TOR) switch has no TEMPEST requirements. In the bidding sheets is TEMPEST C requested. Can you please clarify whether COTS or TEMPEST C is requested?	The project assumes introduction of three data center footprints following the same design. Two out of three data center topologies are to operate in high classification network and hence all devices supporting them should meet the TEMPEST requirements - this applies to Top-of-Rack switches as well. Resulting from this is the need to procure the TOR switches TEMPEST C for classified deployment and COTS for unclassified deployments. The quantities of the TEMPEST C vs COTS are defined in the SSS documentation
277	3.6.6.1.4.5.4. of Book i - Bidding Instructions	Sub-contractors and other personnel are required to possess a NS clearance on contract signing, it would only be appropriate that Key Personnel be provided the same. Primarily as no work or visits will occur prior to contract award, so there is no reasonable reason for this requirement. NATO has a process for companies who are not compliant at contract award, so there is a method to move on to the next compliant bidder. Can the paragraph read "On contract signing or award Key personnel must have NS ..."?	Requirement would be to provide attestation that key personnel will have a valid clearance at the time the contract award

278	Book II Part IV ANNEX C Key Contractor Personnel	Under experience for Key Personnel it states that, "Shall have a demonstrated spoken and written fluency in English..." Demonstrates means to have shown. Can a bidder demonstrate fluency by being part of the bid team? If not what is required?	Just assert that the Key Personnel spoken and written fluency in English is compliant with STANAG 6001 language standards and proficiency levels of minimum 4343.
279	Book II, Part IV, Annex A Pages 47 & 48	There was an error in creating the PDFs resulting in a cut off of the right side of the tables	Noted. Pages 47 and 48 are attached as part of CRs
280	Book II, Part IV, Annex A A.1.53	The list of requirements says this is a DLP solution, but then includes items that are mostly ENS. Only item 10 is for DLP. Is the requirement for 715 McAfee ENS + 715 McAfee DLP Endpoint licenses?	As indicated in SOW section B.3.4, McAfee Endpoint Security (ENS) and McAfee DLP licenses are PFE. Some additional DLP licenses are required, as indicated in the bidding sheets. No ENS licenses are required because all are PFE. The required McAfee DLP license is McAfee Complete Data Protection—Advanced.
281	Book II, Part IV, pg 64 of 100, Para 6.2.4	Based on experience what is the expected percentage of Tempest equipment that must be shipped	For TEMPEST spot-testing, the Contractor is required to ship up to a maximum of 10% of the total number of TEMPEST devices, including at least one device for each type of TEMPEST device.
282	Book I Annex A Bidding Sheets, CLIN 6.6.30	What is the required Tempest rating for this particular server?	The server in CLIN 6.6.30 requires TEMPEST C certification.
283	RFQ Bidding Sheet, CLIN Summary, CLIN 12.1.20 & 12.4.10	The description of the device does not indicate the item is to Tempest C. Can you identify in the Bidding Sheet which servers the Virtual Loadbalancers will reside on and that those servers are indicated as Tempest C.	The Virtual Loadbalancer software will be installed on servers which will be TEMPEST certified.
284	RFQ Bidding Sheet, CLIN Summary, CLIN 6.1.32 & 12.1.22	The description of the device does not indicate the item is to Tempest C. Confirm the Mail Guard is required to be Tempest C	The Mailguards require TEMPEST C certification.
285	RFQ Bidding Sheet, CLIN Summary, CLIN 6.1.34	The description of the device does not indicate the item is to Tempest C. Confirm the XML-Labeling Guard is required to be Tempest C	The XML-Labeling Guards require TEMPEST C certification.
286	RFQ Bidding Sheet, CLIN Summary, CLINs 6.1.36, 6.4.10, 6.5.8, 6.6.47, 6.7.12, 12.1.24, 12.4.12	Confirm that each A.1.26 consists of one A.1.26.1 and one A.1.26.2.	We confirm that SRS A.1.26 consists of .1.26.1 and A.1.26.2.
287	RFQ Bidding Sheet, SOW A.1.28.1 and Book II Part IV, Annex A, A.1.28	Confirm that there is no requirement for item A.1.28.2	We confirm that A.1.28.2 is not specified in the Bidding Sheets

288	6_IFB-CO-15049- BITI_Book II - Part IV SOW Annex A AMD- 2	<p>(166) The PFE VMWare software shall be installed on to the equipment provided in this contract to create a fully functioning and resilient VMWare vSAN Hyper Converged Infrastructure (HCI) that follows the VMware vSAN Datacenter Cluster and ROBO Deployment Reference Architecture.</p> <p>Do we need to offer vSAN ReadyNodes for all Virtual Host Server and Storage servers specifications instead of build your own servers solution with certified hardware like requested in System Requirement Specification Technical Refresh of Balkans IT Infrastructure?</p> <p>vSAN ReadyNode™ is a validated server configuration in a tested, certified hardware form factor for vSAN deployment, jointly recommended by the server OEM and VMware. vSAN ReadyNode™ are ideal as hyper-converged building blocks for larger data center environments looking for automation and a need to customize hardware and software configurations.</p>	Bidders may offer OEM vSAN ReadyNode™ validated server configuration that meets the specifications for SRS items: A.1.8 Virtual Host Server and Storage (Large), A.1.9 Virtual Host Server and Storage (Medium), A.1.10 Virtual Host Server and Storage (Small).
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<p>289</p>	<p>6_IFB-CO-15049-BIT1_Book II - Part IV SOW Annex A AMD-2</p>	<p>A.1.8 Virtual Host Server and Storage (Large) A.1.9 Virtual Host Server and Storage (Medium) We would like the Contractor to confirm that there is possibility to offer multiple vendors for equipment under points A.1.8 and A.1.9 considering the fact that under the "Chassis" description there isn't any vendor listed yet only description that states "2U Rack Mount Server with Small Form Factor (SFF) Chassis". We further conclude that HPE servers are mandatory for offering under the points A.1.10. through A.1.15 considering the "Chassis" description. Please confirm that this is correct. We would like to emphasize the fact that although there may be an option to offer multiple vendors under the A.1.8 and A.1.9 points stated in the question above there are still some HPE naming legacy parts left in the server BoM's which other vendors technologically resolve in a different manner or have a different name for them so they do not include them in their configurations (BoM's). Those HPE parts would be: 96W Smart Storage Backup Battery (up to 20 Devices) with 145mm Cable Kit, Smart Array Performance RAID 12G SAS Modular Controller (16 Internal Lanes/4GB Cache/SmartCache), 800W Hot Plug Low Halogen Power Supply Kit, Redundant High Performance Temperature Fan Kit. We would like Contractor to confirm that if other vendors could be offered for any point, that functional equivalents can be offered. The Contractor is requesting "Embedded Network ports" under the A.1.8 and A.1.9 points. We would like to emphasize the fact that the embedded network ports is a legacy HPE feature which is currently not available anymore due to the new NC (network choice) architecture type for Proliant servers. All the current server vendors on the market, including HPE, now have LoM (Lan on Motherboard) Network adapters which is not embedded. Could you specify type of adapter?</p>	<p>Bidders may offer OEM vSAN ReadyNode™ validated server configuration that meets the specifications for SRS items: A.1.8 Virtual Host Server and Storage (Large), A.1.9 Virtual Host Server and Storage (Medium), A.1.10 Virtual Host Server and Storage (Small).</p>
<p>290</p>	<p>6_IFB-CO-15049-BIT1_Book II - Part IV SOW Annex A AMD-2</p>	<p>(170) The IaaS VMware vSAN Datacenter shall be installed as a five (5) host cluster to provide the following resources for the virtual servers: (1) 270Tb of raw storage (2) 205 vCPU (3) 610 vRAM We would like to point out to the Contractor that none of the specified server configurations can fulfill the requirement for the 270TB of Raw storage. Also, we kindly ask the Contractor to provide us with more details on how is the 270TB of Raw storage calculated through 5 nodes - which nodes are used for calculation, what RAID type, what data type, are compression and deduplication allowed for calculation?</p>	<p>Bidders may offer OEM vSAN ReadyNode™ validated server configuration that meets the specifications for SRS items: A.1.8 Virtual Host Server and Storage (Large), A.1.9 Virtual Host Server and Storage (Medium), A.1.10 Virtual Host Server and Storage (Small).</p>

291	6_IFB-CO-15049-BITI_Book II - Part IV SOW Annex A AMD-2	A.1.8 Virtual Host Server and Storage (Large) A.1.9 Virtual Host Server and Storage (Medium) Can you confirm whether 10G copper or optical transceivers should be offered with the required 10G adapter (Ethernet 10Gb 2-port Flexible LOM SFP+ Adapter)?	10G Copper Transceivers shall be offered.
292	6_IFB-CO-15049-BITI_Book II - Part IV SOW Annex A AMD-2	A.1.10 Virtual Host Server and Storage (Small) A.1.12 Virtual Host Witness Server A.1.13 Physical Server (Domain Controller) A.1.14 Backup Server (Large) A.1.15 Backup Server (Small) Can you confirm whether 10G copper or optical transceivers should be offered with the required 10G adapter (Ethernet 10Gb 2-port 562FLRSFP+ Adapter)?	10G Copper Transceivers shall be offered.
293	6_IFB-CO-15049-BITI_Book II - Part IV SOW Annex A AMD-2	A.1.42 Media Converter Module A.1.43 Media Converter SFP 155-Mbps LC A.1.44 Media Converter SFP 1250-Mbps LC A.1.45 Media Converter Wallmount Bracket Can another manufacturer that meets the parameters from the technical specification be offered?	The Bidder shall offer the items that meet the specifications for Media Converter items specified for A.1.42 to A.1.45 in the SRS
294	3_IFB-CO-15049-BITI_Book I - Annex A Bidding Sheets AMD-2 5_IFB-CO-15049-BITI_Book II - Part IV Statement of Work including Annex B - Annex D AMD-2	Can you explain to us whether the delivery locations from document 3_IFB-CO-15049-BITI_Book I - Annex A Bidding Sheets AMD-2 are correct? Comparing Table 1 Locations and Networks to be implemented from document 5_IFB-CO-15049-BITI_Book II - Part IV Statement of Work including Annex B - Annex D AMD-2 and column delivery destination from document 3_IFB-CO-15049-BITI_Book I - Annex A Bidding Sheets AMD-2 do not match all the locations listed.	The locations are correct. The separation in the bidding sheets is related to several factors internal to the project that will be clarified after Contract award
295	5_IFB-CO-15049-BITI_Book II - Part IV Statement of Work including Annex B - Annex D AMD-2	In the document 5_IFB-CO-15049-BITI_Book II - Part IV Statement of Work including Annex B - Annex D AMD-2 You mention Clause 29 of contract Special Provisions, but we cannot find it, can you explain to us what part of the documentation it is?	Reference should read Clause 28

296	6_IFB-CO-15049-BITI_Book II - Part IV SOW Annex A AMD-2	<p>A.1.32 A3 Printer</p> <p>A.1.34 A0 Plotter/Scanner Combi Device + Media Converters</p> <p>A.1.35 A0 Plotter + Media Converters</p> <p>what exactly is the required amount of media converters, and which LC or SC converters?</p> <p>9) Media Converter (Media Converter to 1000Base-SX: Allied Telesis AT-MMC2000/LC Converter)</p> <p>10) Media Converter (Media Converter to 100Base-SX: Allied Telesis AT-MMC200/SC Converter)</p>	<p>The Bidder shall offer all the items specified in A.1.32 to A.1.35 this includes both the Media Converters specified at item 9 and item 10</p>
297	6_IFB-CO-15049-BITI_Book II - Part IV SOW Annex A AMD-2	<p>A.1.25 Proxy device</p> <p>In order to offer you a valid replacement for the outdated BlueCoat 510-10 ProxySG device, we have a few questions:</p> <p>What is average volume of traffic (throughput) through proxy (Mbps) and volume of traffic in peaks (HTTP / HTTPS)?</p> <p>What is the highest number of proxy connections made during the day?</p> <p>What is number of proxy users (total employees)?</p> <p>Do you have requests to upgrade to Office 365 because of device performance?</p>	<p>As specified in SRS section A.1.25 requirement 5, the proxy must support 1000 concurrent users.</p>
298	SOW Specifications for Tempest Products	<p>In addition to TEMPEST system environments, a TEMPEST universal power supply filter is also required for complete protection against data tapping.</p> <p>Are we right in assuming that all sites in which TEMPEST equipment is implemented have appropriate high attenuation wide-range filters with sufficient attenuation already installed?</p> <p>To our understanding, if there is no high attenuation wide-range filter available or the dimensions are insufficient, there is no complete TEMPEST protection.</p> <p>This would make it necessary to use additional TEMPEST universal power supply filters for each system.</p>	<p>In general, the Contractor is not responsible for providing power supply filters for TEMPEST protection. Refer to the answer to clarification request 15 for a situation in which Contractors have the option to provide such a power supply filter.</p>
299	SOW Specifications for Tempest Products	<p>Are we also right in assuming that after implementation, the TEMPEST systems will no longer be moved and will remain in the approved system / bundle, including the TEMPEST-Universal Power Supply Filter?</p> <p>If systems are used in DC environments (possibly mobile use) without high attenuation wide-range filters or are not sufficiently dimensioned, to our understanding there is no complete protection.</p> <p>This would make it necessary to use additional TEMPEST universal power supply filters for each system</p>	<p>Once Final System Acceptance has been achieved, if a TEMPEST system is moved during its operational lifetime, the Contractor is not responsible for maintaining TEMPEST protection.</p>

300	SOW Specifications for Tempest Products	TEMPEST and commercial of the shelf systems look almost identically from the outside. A closer examination seems necessary to us. Therefore, we kindly ask you to answer the following questions: a) How does the Agency assess or check the delivered or implemented systems and associated components at the respective tempest level? b) In addition to the systems, are the associated components, e.g. power cables, also checked for radiation?	a) For each TEMPEST-certified device, the Contractor must provide the corresponding TEMPEST certificate, as specified in SOW section 3.2.3.5. The information on the TEMPEST certificate, combined with the presence of TEMPEST seals, will suffice to identify the TEMPEST-certified devices. b) The Contractor is not responsible for TEMPEST-certifying power cables.
301	SOW Specifications for Tempest Products	Multiple TEMPEST systems including different services with partly up to 5 years manufacturer warranty are tendered. However, the contract partner only provides service for the first year. How is the repair of TEMPEST systems carried out in the following years?	Repair of TEMPEST-certified devices is carried out in the same fashion as non-TEMPEST-certified devices. Once Final System Acceptance has been achieved, if a device undergoes service that invalidates its TEMPEST certification, the Contractor is not responsible for re-certifying the device.
302	SOW Specifications for Tempest Products	TEMPEST systems (e.g. servers) with hot-swappable components such as SSD and power supplies are tendered. The OEM manufacturer provides a standard warranty service on COTS systems, not for TEMPEST. We see a risk that COTS components are used in TEMPEST systems and the whole system loses its TEMPEST protection. Please explain how the purchaser will cope with this situation.	Once Final System Acceptance has been achieved, if the device undergoes service that invalidates the TEMPEST certification, the Contractor is not responsible for re-certifying the device.
303	SOW Specifications for Tempest Products	The replacement or repair of defective components in TEMPEST systems requires the systems to be re-TEMPESTed . This is very time consuming, as the defective system needs to be returned to the TEMPEST company, repaired, re- TEMPESTed and send back to the site for implementation. Therefore, we ask for information if the sites will have a pool of service components or service systems at their disposal to bridge the repair time?	Yes, a spares pack will be defined after the site survey has taken place.
304	SOW Specifications for Tempest Products	Our understanding is that the specific DC system environments and the requirements profile at the sites make TEMPEST (Level B/C) on system-level mandatory. Are we therefore right in assuming that delivery of TEMPESTed racks including non- TEMPESTed devices for the DC is not enough in any case?	TEMPEST certification is required at the device level. TEMPEST racks containing non-TEMPEST-certified devices is not an acceptable solution.
305	SOW Specifications for Tempest Products	In addition to TEMPEST system environments, a TEMPEST universal power supply filter is also required for complete protection against data tapping. Are we right in assuming that all sites in which TEMPEST equipment is implemented have appropriate high attenuation wide-range filters with sufficient attenuation already installed? To our understanding, if there is no high attenuation wide-range filter available or the dimensions are insufficient, there is no complete TEMPEST protection. This would make it necessary to use additional TEMPEST universal power supply filters for each system.	In general, the Contractor is not responsible for providing power supply filters for TEMPEST protection. Refer to the answer to clarification request 15 for a situation in which Contractors have the option to provide such a power supply filter.
306	SOW Specifications for Tempest Products	Are we also right in assuming that after implementation, the TEMPEST systems will not be moved during their operation lifetime and will remain in the approved system / bundle, including the TEMPEST-Universal Power Supply Filter? If systems are used in DC environments (possibly mobile rack usage) without high attenuation wide-range filters or are not sufficiently dimensioned, to our understanding there is no complete protection. This would make it necessary to use additional TEMPEST universal power supply filters for each system.	Once Final System Acceptance has been achieved, if a TEMPEST system is moved during its operational lifetime, the Contractor is not responsible for maintaining TEMPEST protection.

307	SOW Specifications for Tempest Products	In order to maintain a secure supply chain for at least all major systems are we right in assuming that only new equipment ex works is permitted under this call for tenders? We suggest as evidence that the contractual partner must submit a written confirmation from the respective manufacturer (at least for the main systems) upon delivery or shortly afterwards.	Yes, only new equipment is to be offered.
308	SOW Book II_Part IV SOW Annex A.1.23, Book I Annex A Bidding Sheets CLIN	In the SOW, the product is indicated with Tempest Level C, but this is not required in the bidding sheets under point 6.1.34. Please indicate whether a Tempest Level C is required.	The XML-Labeling Guards require TEMPEST C certification.
309	Book II, Part IV, 5.4.9	The paragraph mentions the Purchaser's SLA. No SLA is referenced or clearly identified outside of this paragraph. Was it omitted or found in another document?	The purchasers SLA shall be made available during the site survey.
310	Book II, Part IV, SOW Annex A. A.1.8 to A.1.17	HPE representatives indicated that there are numerous errors in the specifications for the components listed. Confirm that all components listed are correct and we are to use them in our calculations.	Bidders shall use the specifications provided and offer equipment that meets or exceeds the specifications provided in the SRS.
311	SOW	Taking into account that the established management platform is OneView are we right in assuming that this standard will prevail and the contractor – during implementation - is to deliver software licenses for this platform and the DC components if deemed necessary?	The established management platform will be maintained. No additional software licences are considered necessary at this time.
312	SOW A.1.19	SoW A.1.19. Refers to virtual load balancers which is a software item but the SOW requires Tempest Level C certification. Is there a specific hardware component intended to be used with the virtual load balancers than must be Tempest Level C certified and if so would you please identify it?	The Virtual Loadbalancer software will be installed on servers which will be TEMPEST certified.
313	09_IFB-CO-15049-BIT1_Book II - Part IV SOW Annex A System Requirements Specifications	Having in mind that in the all existing NATO Balkan IT Refresh Sites and installations the management platform are currently in use is OneView , and in order to keep the standardised platform across all sites are these licenses required for the Server / Storage Part of this procurement ?	The established management platform will be maintained. No additional software licences are considered necessary at this time.
314	SOW A.1.47	Based on past experience with NATO we are aware that sometimes there is a need to install a specific SSD into rugged notebooks capable of meeting defined encryption requirements. Specifically, a NIAPC approved Viasat Eclipt encrypted hard drive is sometimes required and these SSDs are only available as a 2.5" SATA drives. The current SoW requirements for A.1.47 do not require a SATA connection and the minimum requirement refers to an M.2 style SSD. Can you please confirm that a SATA connection is not required?	The Rugged Notebook (A.1.47) shall provide a SATA interfaces / connection that supports the NIAPC approved 2.5" inch Viasat Eclipt Encrypted SSDs.

315	09_IFB-CO-15049-BIT1_Book II - Part IV SOW Annex A System Requirements Specifications	Are TEMPEST certified equipment in NATO SDIP-27 Level B meant for use in power protected facilities (ER testing only without black line test)?	For laptops requiring Level B certification, Radiated Emission and Conducted Emission certification is required. For other devices (i.e. non-laptops) required Level B certification, two options are acceptable: 1) Radiated Emission and Conducted Emission certification; or 2) Radiated Emission certification and a pluggable TEMPEST power filter sourced from a TEMPEST-approved vendor in the NATO Information Assurance Product Catalogue (NIAPC), with CEE 7/7 inlet, and outlets suitable for the TEMPEST B device.
316	09_IFB-CO-15049-BIT1_Book II - Part IV SOW Annex A System Requirements Specifications	Are TEMPEST certified equipment in NATO SDIP-27 Level C meant for use in power protected facilities (ER testing only without black line test)?	For devices requiring Level C certification, Radiated Emission certification is sufficient.
317	Book I – Bidding Instructions, A.3.2. General Pricing Requirements	Is the equipment delivered for NATO projects to non-NATO countries subject to customs duties, VAT, taxes under local laws or is it exempt from the mentioned financial obligations?	NATO has no jurisdiction for deliveries to non nato countries. Duties unrecoverable duties payable on nion nato counties will be paid as an equitable adjustment if necessary.
318	Part IV, Statement of Work, Annex A System Requirement Specification Technical Refresh of Balkans IT Infrastructure IFB-CO-15049-BIT1, 03 June 2020, page 29-32	Do you have SafeCom licenses for the devices: A.1.31, A.1.32, A.1.34 and A.1.35, or we must include it in our calculation?	The SafeCom licence CLINs are specified in the Bidding Sheets
319	Part IV, Statement of Work, Annex A System Requirement Specification Technical Refresh of Balkans IT Infrastructure IFB-CO-15049-BIT1, 03 June 2020, page 29, item #6, page 30 item #10, page 31 item#9	Minimum requirement for the items: A.1.31, A.1.32, A.1.34, A.1.35, is "Pull printing". Pull printing is a printing feature where a user's print job is held on a server or on a user's workstation and released by the user at any printing device (pulled to the device) which supports this feature. Could you please confirm that Pull printing functionality must be implemented through SafeCom software?	Yes this is specified in A.1.51 of the SRS

320	Part IV, Statement of Work, Annex A System Requirement Specification Technical Refresh of Balkans IT Infrastructure IFB-CO-15049-BITI, 03 June 2020, page 29, item #7, page 30 item #11, page 31 item#10	Minimum requirement for the items: A.1.31, A.1.32, A.1.34, A.1.35, is "Secure Print RFID Card Reader". Are you planning to use "Secure Print RFID Card Reader" for the Pull printing and access control at printer?	Yes this is specified in A.1.51 of the SRS
321	Part IV, Statement of Work, Annex A System Requirement Specification Technical Refresh of Balkans IT Infrastructure IFB-CO-15049-BITI, 03 June 2020, page 29-32	Is it acceptable to offer Kofax Ethernet Card Readers or SafeCom embedded licenses for all local devices (A.1.31, A.1.32, A.1.34, A.1.35) are mandatory?	Yes it acceptable to offer Kofax Ethernet Card Readers and SafeCom embedded licenses for items A.1.31, A.1.32, A.1.34, A.1.35 in the SRS.
322	Part IV, Statement of Work, Annex A System Requirement Specification Technical Refresh of Balkans IT Infrastructure IFB-CO-15049-BITI, 03 June 2020, page 32	Minimum requirement for the item A.1.36, is "Secure Print RFID Card Reader". Are you planning to use "Secure Print RFID Card Reader" for access control at Digital Sender via SafeCom software?	Yes

323	6_IFB-CO-15049-BIT1_Book II- Part IV SOW Annex A AMD-2 Part IV, Statement of Work, Annex A System Requirement Specification	<p>A.1.8 Virtual Host Server and Storage (Large) (41) All server and storage equipment shall be sourced from a mainstream brand manufacturer that has a support and warranty channel that cover the geographical scope of this Contract and shall include, but are not limited to: Hewlett Packard, Dell, Lenovo, NetApp, IBM etc, in order to replace existing branded equipment. with included options that match minimum technical specifications shall be sourced from a mainstream brand manufacturer that has a support and warranty channel that covers the geographical scope of this Contract and shall include, but are not limited to: Hewlett Packard, Dell, Lenovo, NetApp , IBM etc, in order to replace existing branded equipment“ may be applied to the following items ; A.1.8 Virtual Host Server and Storage (Large) A.1.9 Virtual Host Server and Storage (Medium) A.1.10 Virtual Host Server and Storage (Small) A.1.12 Virtual Host Witness Server A.1.13 Physical Server (Domain Controller) A.1.14 Backup Server (Large) A.1.15 Backup Server (Small) A.1.16 GEO Datastore (10 TB, low performance)</p>	Yes
324	6_IFB-CO-15049-BIT1_Book II- Part IV SOW Annex A AMD-2 Part IV, Statement of Work, Annex A System Requirement Specification	<p>A.1.8 Virtual Host Server and Storage (Large) (41) All server and storage equipment shall be sourced from a mainstream brand manufacturer that has a support and warranty channel that cover the geographical scope of this Contract and shall include, but are not limited to: Hewlett Packard, Dell, Lenovo, NetApp, IBM etc, in order to replace existing branded equipment. Could you confirm that rule “All server and storage equipment together with included options that match minimum technical specifications shall be sourced from a mainstream brand manufacturer that has a support and warranty channel that covers the geographical scope of this Contract and shall include, but are not limited to: Hewlett Packard, Dell, Lenovo, NetApp , IBM etc, in order to replace existing branded equipment“ may be applied to Tape Library and Tape Media; A.1.17 Tape Library A.1.18 Tape Media</p>	Yes

325	5_IFB-CO-15049-BITI_Book II - Part IV Statement of Work including Annex B - Annex D AMD-2 (.PDF)_Corrigendum 2	<p>Could Purchaser explain if migration is included in the paragraph 4.3.4.1 or in paragraph 1.2.4?</p> <p>Could Purchaser explain where to put cost for travel, labor, for required support for migration service?</p> <p>4.3.4. Provisional Site Acceptance (PSA)</p> <p>4.3.4.1. The Contractor shall support the migration and transition of equipment and services from the existing environment to the new environment including the migration of data (including user data) so that users can access their migrated data. The Purchaser will identify the user data to be migrated.</p> <p>1.2.4 Additional engineering support shall be made available on a Level of Effort (LoE) basis to provide engineering support for Migration, Security Accreditation and Post Migration Support tasks which will be ordered (if required) in accordance with the task ordering process detailed at Clause 29 of the Contract Special Provisions. Each specific role and its requirements can be satisfied through more than one professional (up to 5 professionals to complete requirements) that can fulfil the overall job description.</p>	<p>Migration is specified in both paragraphs 4.3.4.1 and 1.2.4 of the SoW. The costs for travel and labor for the required support for migration shall be entered into the respective tabs in the Bidding Sheets.</p>
326	Book II - Part II - Contract Special Provisions AMD-2	<p>The payment terms proposed in the Special Contract Provision paragraph 7 are very unbalanced with majority of the payments at the end of the contract. As an example, all project activities in CLIN 1 supposed to be invoiced at acceptance of FSA. Few to none intermediate payment milestones in between site survey and PSA/FSA. Can the purchaser please review the payment terms, introduce potential other intermediate payment milestones to make the payment terms more balanced and more similar to other similar NCIA contracts where partial payments are made throughout the contract period based on intermediate milestones.</p>	<p>Sorry not at the bid stage, adjustments might be possible over the course of the contract and it would be discussed with the winning bidder if they have an issue.</p>
327	Book I - Annex A - Bidding Sheets AMD2 CLIN summary	<p>Can the Purchaser please consider to augment and split the SSS breakdown of CLIN 3 into Sub CLINs that corresponds to how the project will be implemented and to make it clear for the Bidders what to be included in the CLINs, like system design and documentation, installation/implementation, system configuration, migration and PSA testing?</p>	<p>Description of the required activities is provided in the SOW sections 3, 4 and Annex A SRS.</p>

328	Book I - Annex A - Bidding Sheets AMD2 CLIN summary	<p>The SDS for KFOR HQ should be completed according to the SSS at EDC +8 weeks. For CLIN 6.1 KFOR HQ (MS, NS, NU), except CLIN 6.1.2 and 6.1.3, have a completion date at EDC+10 weeks. CLIN 5.7 Packing, Handling, Storage and Transportation KFOR HQ should be completed at EDC + 10 weeks. All these formal completion dates combined shows that there is only 2 weeks gap between the acceptance of the design by NCIA and the delivery of the equipment at site. In this timeframe procurement, manufacturing, tempesting, shipment and final delivery shall be performed formally. This is unrealistic.</p> <p>Even if one placed the order of the equipment before acceptance of the design at for instance EDC the completion date of EDC + 10 weeks for the delivery of the HW/SW at KFOR HQ is still unrealistic especially for the equipment required to be tempested.</p> <p>Special Contract Provision has clauses for liquidated damages applied to any applicable milestone on the SSS which is seen the context above unfair.</p> <p>Can the Purchaser please revisit the milestones for KFOR HQ site and make it more realistic to for instance EDC + 16 weeks?</p>	<p>The equipment that has EDC +10 weeks ETA shall be ordered at EDC and if any discrepancies, shall be supplemented after Site survey. EDC+16 weeks is not viable for the timeline of the project.</p>
329	Book I - Annex A - Bidding Sheets AMD2 CLIN summary	<p>There seem to be a mismatch between some of the required completion dates in the SSS. Procurement of KFOR HQ HW/SW delivered at latest EDC + 26 weeks (CLIN 6.1.2 and 6.1.3). CLIN 3,5 Achieve PSA KFOR HQ to be performed at latest EDC + 22 weeks. The Bidder would assume that all equipment for KFOR HQ should be part of the formal PSA and not delivered after PSA. Please clarify?</p>	<p>Bidding sheets corrected to reflect EDC+10 weeks. All equipment in section 6 of bidding sheets will need to part of the KFOR HQ PSA.</p>
330	Book I – SOW 3.3.4 Annex A Amd 2 Bidding Sheets AMD2 CLIN summary	<p>The definition and scope of the migration tasks in the SoW is not clear to the Bidder. Please clarify and make it clear what detailed tasks and effort the Purchaser intends to be included in CLIN 3 Achieve PSA per site and per equipment type and what to be included in CLIN 7 Engineering Support?.</p> <p>As an example 3.3.4 SOW Annex A Amd 2, should replacing an existing network router/switch into the operational network be considered a migration task of network segments and users be part of CLIN 3 Achieve PSA per site or CLIN 7 Engineering Support?</p>	<p>Bidders should refer to paragraph "1.1.3. The SOW describes the scope of the project deliverables to be provided by the Contractor which includes Core Contract tasks and Optional Level of Effort (LoE) Engineering Support for additional engineering activities; and paragraph "1.2.4 Additional engineering support shall be made available on a Level of Effort (LoE) basis to provide engineering support for Migration, Security Accreditation and Post Migration Support tasks..."</p>
331	Book I - Annex A - Bidding Sheets AMD2 CLIN summary	<p>Can the purchaser confirm that onsite secure storage will be available for early delivered HW vs the achieve PSA date, i.e. CLIN 5.8/6.5 HW delivered at the site in week 26 EDC and achieve PSA CLIN 3.9 milestone at week 53 EDC</p>	<p>Confirmed. Details to follow during Site survey.</p>
332	Book II – Part IV – SoW AMD 2 Table 1 Locations and Networks to be implemented	<p>Experience from the sites identified in the SoW shows that escorts are required on site. As a consequence access control for various Class 1 installation areas the Contractor has experienced significantly reduced working hours, can the Purchaser please clarify workable business hours for all the sites so detailed installation effort can be calculated?</p>	<p>Detailed working hours schedule will be defined after site survey and included in the PIP and PMP. Unavailability of escorts on site in Class 1 areas will not be considered fault of the Contractor.</p>
333	Book II – Part IV – SoW Annex B section 1.2 AMD 2 Annex A section 1.5.9 Amd 2 Section 3.2 Milestones	<p>The Purchaser confirms they will not identify the existing PFE list. Can the Purchaser confirm if there are any PFE dependencies on the Bidders work/effort to achieve PSA/FSA that needs to be taken into account and is not specified in the SoW?</p>	<p>All known PFE dependencies have been mentioned in the SoW, any unknown PFE dependencies shall be identified during the site surveys.</p>

334	Book II – Part IV – SoW Annex A Section 3.5.2 AMD 2	Can the Purchaser confirm that the Contractor will need to be given access to the existing IT servers and services, by use of domain administrator passwords, in order to install the new IaaS equipment to be delivered? Can the Purchaser also indicate the level of security clearance required for the Bidder to be able to configure on domain admin level?	The required Contractor security clearances are described in SoW paragraph "4.1.3. Security Requirements". Some installation and engineering activities may require use of administrative rights.
335	Book II – Part IV – SoW Annex A – SRS AMD 2 3.3.1 - req. [107]	Is it the Purchaser expectation that the existing obsolete routers to remain in service in parallel with the new replacement routers for a period of time (if so how long) or will the new routers be replaced directly into the live network? If the router is to be replaced directly into the live network the assumption is that all dependant user access switches and end users needs to be migrated at this point of time also. Please confirm? As noted any upgrade is assumed to be conducted out of hours will NCI and local support be available to support transition	The Contractor shall describe the installation plan as outlined in SoW paragraph "4.3.2. Site Implementation Data Package (SIDP)"
336	Reserved	Reserved	
337	Book II – Part IV – SoW Annex A – SRS AMD 2 1.3 req [6] and 3.2 – req. [101] (2)	The SoW is contradictory regarding the requirements for vertical cabling. Section 1.3 (6) states that vertical cabling between room inside and outside buildings are the responsibility of the Purchaser. Section 3.2 (101) states that the Contractor is responsible for provide and install network cabling for both inter rack connections and inter room connections. Can the Purchaser please clarify the Contractors responsibility regarding vertical cabling?	Section 1.3 (6) takes precedence.
338	Book II – Part IV – SoW Annex A – SRS AMD 2 3.2 – req. [101] (2)	Does the inter room cabling requirement indicate that sufficient single mode campus wide cabling must be installed between Core equipment and Access switch locations at all sites?	The amount of available single mode cabling across the campus will be determined during the site survey.
339	Book II – Part IV – SoW Annex A – SRS AMD 2 2.6.1 - req. [72]	How are the current PABX Analogue lines at the 6 Buildings in Bosnia presented and terminated (Punchdown telco block/RJ11 or RJ45 Patch Panel). Is there an expectation for the Contractor to provide hardware and to re-terminate these lines into RJ45 Patch panel for patch cable connection to the Voice Gateway?	The points made shall be identified during the site survey and specified in the SIDP
340	Book II – Part IV – SoW Annex A – SRS AMD 2 3.1.1 - req. [92]	Can the Purchaser please provide more details on the power consumption for the currently installed equipment in order for the Bidder to be able to size the UPS with +30% spare capacity and 10 minutes backup power runtime?	This shall be identified during the site survey and specified in the SIDP
341	Book II – Part IV – SoW Annex A – SRS AMD2 Annex A A.1.10	Could the purchaser please confirm the quantity of the required memory modules (Item#4)? Since dual CPU server configuration is required, the quantity of the memory modules should be change from 1 to 2 for balanced system configuration	2 x 16GB memory modules can be provided
342	Book II – Part IV – SoW Annex A – SRS AMD2 Annex A A.1.10	Could the Purchaser please confirm if the quantity of Item#5 should be 1 instead of 4?	The SRS item has been amended. Item 5 should be quantity 1.

343	Book II – Part IV – SoW Annex A – SRS AMD2 Annex A A.1.10	Could the purchaser please confirm if the quantity of Item#6 should be 1 instead of 4?	The SRS item has been amended. The Item should be quantity 2.
344	Book II – Part IV – SoW Annex A – SRS AMD2 Annex A A.1.10	Could the purchaser please confirm if the quantity of Item#14 should be 1 instead of 6?	The SRS item has been amended. The item should be quantity 1.
345	Book II – Part IV – SoW Annex A – SRS AMD2 Annex A A.1.10	Could the purchaser please confirm if the quantity of Item#15 should be 2 instead of 6?	The SRS item has been amended. The item should be quantity 2.
346	Book II – Part IV – SoW Annex A – SRS AMD2 Annex A A.1.12	Could the Purchaser please confirm that the server configuration should include one "2U Small Form Factor Easy Install Rail Kit " like the rest of the server configurations for proper Rack installation?	The SRS item has been amended. The server configuration should include one "2U Small Form Factor Easy Install Rail Kit".
347	Book II – Part IV – SoW Annex A – SRS AMD2 Annex A A.1.13	Could the Purchaser please confirm that the server configuration should include one "2U Small Form Factor Easy Install Rail Kit " like the rest of the server configurations for proper Rack installation?	The SRS item has been amended. The server configuration should include one "2U Small Form Factor Easy Install Rail Kit".
348	Book II – Part IV – SoW Annex A – SRS AMD2 Annex A A.1.14	Could the Purchaser please confirm that the server configuration should include one "HPE DL38X Gen10 High Performance Temperature Fan Kit " ?	The SRS item has been amended. The server configuration should include a High Performance Temperature Fan Kit "
349	Book II – Part IV – SoW Annex A – SRS AMD2 Annex A A.1.3.1	Can the purchaser please confirm if the Item# 15-19 can be removed from the A.1.3.1 ? It seems that these items are already included under Item# 1- 5. Please refer to CQ# 165.	Items #15-19 are indeed resulting from copy&past error and should be disregarded. The requested items are covered in lines #1-5
350	Book II – Part IV – SoW Annex A – SRS AMD2 Annex A A.1.3.4	The description of SRS [25] – A.1.3.4 (C9300-48P-E) should be (C9300-48T-E). Please refer to CQ# 46	SRS entry [25] contains incorrect reference to C9300-48P-E, the request switch platform for A1.3.4 should be C9300-48T-E (non-PoE version)

351	Book II – Part IV – SoW Annex A – SRS AMD2 Annex A A.1.3.5	The description of SRS [27] – A.1.3.5 (C9300-24P-E) should be (C9300-24T-E). Please refer to CQ# 46	SRS entry [27] contains incorrect reference to C9300-24P-E, the request switch platform for A1.3.5 should be C9300-24T-E (non-PoE version). The SRS has been corrected.
352	Book II – Part IV – SoW Annex A – SRS AMD2 Annex A A.1.22	According to the answer on the Technical Clarification Question#261: A total of 12 NIPS licences are required, including 4 for existing firewalls and 8 for new firewalls. However, there are 9 NEW firewalls required in CLIN 6 and CLIN 12 (described as A.1.20). Could the purchaser please confirm the number of the New Firewalls and NIPS Licences required? Please also update the Bidding Sheets quantity accordingly.	A total of 12 NIPS licences are required, including 4 for existing firewalls and 8 for new firewalls. The 9th new firewall in CLIN 6.4.9 does not require a NIPS licence. No update to the Bidding Sheets is required.
353	Book II – Part IV – SoW Annex A – SRS AMD2 Annex A A.1.25	Could the purchaser please specify what is the required "network throughput in Mbps" of the Proxy Device?	As specified in SRS section A.1.25 requirement 5, the proxy must support 1000 concurrent users.
354	Book II – Part IV – SoW Annex A – SRS AMD2 Annex A A.1.25	Could the purchaser please confirm if the requirement for "Keyboard, video and mouse (KVM) over Ethernet" is not mandatory and can be removed from the SRS? Most of the Proxy Appliances on the market run on purpose built appliances that do not have a keyboard/mouse/video connection. The connection is provided using a console or https/ssh (over ethernet).	The SRS item has been amended. The requirement for "Keyboard, video and mouse (KVM) over Ethernet" is not mandatory.
355	Book II – Part IV – SoW Annex A – SRS AMD2 Annex A A.1.35	The specification of A.1.35 should be corrected. The system description is for A0 plotter and the specification is referring to A1 plotter. Please also refer to CQ# 99.	The SRS item has been amended. The description of A.1.35 should be "A1 Plotter + Media Converters"
356	Book II – Part IV – SoW Annex A – SRS AMD2 Annex A A.1.40	The description of item#5 of A.1.40 should be corrected. Please refer to CQ# 17 (screen size of 30" (76.2 cm) to 300" (762cm) is acceptable. The equipment specification is being corrected in the Q&A and indicated to be updated in the IFB, but this has not yet been done. Could you please update the IFB accordingly?	The SRS item has been corrected.
357	Book I - Annex A - Bidding Sheets AMD2 CLIN 12.4.9	Could the purchaser please indicate in the bidding sheets what is the required Tempest level for CLIN 12.4.9. According to CQ#57 it should be COTS.	No TEMPEST testing required for the TAPE media. The mention is added for reference that it will be used in a TEMPEST tested device. Therefore the CLIN is COTS.

358	Book II – Part IV – SoW Annex A – SRS AMD2 Section 3.8.3 and CR#71, CR#268	<p>The Purchaser response to CR#268 states that the Purchaser is unable to specify a brand and model for the XML Labelling Guard. There are no XML Labelling Guards available in the market that are fully compliant to the requirements in SRS section 3.8.3 which are included in the NATO Information Assurance Product Catalogue (NIAPC) (ref. CR#71). Considering that offering an XML Labelling Guard under the assumption that it might become part of the NIAPC in the future and with the tight schedule for this project will lead to challenges and delays in the implementation and non-compliance</p> <p>Can the Purchaser please indicate which XML Labelling Guard they have in mind and want (brand and model) based on the requirement issued?</p> <p>If not able to provide this information, the Bidder suggest this item to be provided as PFE as part of this project.</p>	<p>The proposed XML Labelling Guard manufacturer and product are required to be on the NIAPC if not already included. The Bidder shall describe any delays, risks, or non-compliance to the requirements in SRS section 3.8.3 within their proposal.</p>
359	Book II – Part IV – SoW Annex A – SRS AMD2 Req. 170	<p>The CR response #290 is not answering the question asked.</p> <p>None of the specified server configurations can fulfil the requirement for the 270TB of Raw storage.</p> <p>Can the Purchaser please revisit the specifications stated in Requirement [170] to allow for compliant server configurations to be offered.</p>	<p>The SRS item has been amended. The 270TB of Raw storage is an estimate and shall be reviewed during the site survey and design activity</p>
360	Book II – Part IV SoW Annex A SRS Annex A AMD2	<p>The Purchaser has with AMD2 made changes to the SOW and SRS and other documents. The changes have been presented in Word versions of the “Book II - Part IV SOW Annex A AMD-2 “Track Changes” versions (.Word)” and “Book II - Part IV Statement of Work including Annex B - Annex D AMD-2 “Track Changes” versions (.Word)” by using “Tracked Changes”.</p> <p>The Bidder has identified various instances where these *Tracked Changes” are not reflecting the changes indicated in the Clarification Request responses and as well instances where new requirements and/or specifications are introduced without any Clarification Request responses made or linkage to them. Other requirements/specification are also deleted without any notification from NCIA..</p> <p>Can the Purchaser please provide accurate and updated IFB documentation including Bidding Sheets that reflect all the changes, deletions, additions made in the IFB documents?</p>	<p>This has been corrected in the corrigendum versions of amendment 2.</p>
361	Responses to Clarification Requests 4 Distribution	<p>The response to CR#256 is not answered, it seems that the response from CR#255 is copied. Can the Purchaser please provide a correct response to CR#256?</p>	<p>The SRS item has been corrected.</p>

362	09_IFB-CO-15049-BITI_Book II - Part IV SOW Annex A System Requirements Specifications.pdf A.1.10 Annex A	The item no. 20 (iLO Advanced Non Blade - 3yr Support) is included according HPE, in the item no. 16 (iLO Advanced 1-server License with 3yr Support on iLO Licensed Features). Could you please confirm that item 20 is required or not ?	SRS item A.1.10 has been corrected .
363	09_IFB-CO-15049-BITI_Book II - Part IV SOW Annex A System Requirements Specifications.pdf A.1.10 Annex A	The item no. 21 (DL38x Gen10 Support) is included in the item no. 19 (3Y Foundation Care 24x7 wDMR SVC). Could you please confirm that item 21 is required or not ?	SRS item A.1.10 has been corrected.
364	09_IFB-CO-15049-BITI_Book II - Part IV SOW Annex A System Requirements Specifications.pdf A.1.10 Annex A	Could you please confirm if the quantity of 4 is correct for the items no. 5 and 6?	SRS item A.1.10 has been corrected .
365	09_IFB-CO-15049-BITI_Book II - Part IV SOW Annex A System Requirements Specifications.pdf A.1.10 Annex A	Could you please confirm if the quantity of 6 is correct for the items no. 14 and 15? From manufacturer answer this qty cannot be built.	SRS item A.1.10 has been corrected .

366	09_IFB-CO-15049-BITI_Book II - Part IV SOW Annex A System Requirements Specifications.pdf A.1.15 Annex A	The item no. 1 (2U Rack Server DL380 Gen10 8SFF CTO) cannot accommodate item no. 7 (12TB SAS 12G Midline 7.2K LFF (3.5in) SC 1yr Wty Helium 512e Digitally Signed Firmware HDD), and there is no D3610 Encloser included in A.1.15 distribution. Could you please confirm that the items are distributed correctly?	SRS item A.1.15 has been corrected.
367	T.6 09_IFB-CO-15049-BITI_Book II - Part IV SOW Annex A System Requirements Specifications.pdf A.1.14 – A.1.19 Annex A	If from the manufacturer perspective (hardware config builder functionality), some features must be added to the device distribution list in order to be operational, and these items don't appear in the Annex A document, should these extra features be added?	Yes, many of these SRS items have been corrected
368	Book II Part IV, Annex A, A.1.38 Pg. 32	contrast ratio's have a tendency to be hyper inflated. The differences between most major projector manufacturers in contrast ratio is unable to be detected by the naked eye. A contrast ratio of 3M : 1 seems unrealistic expectations. Based on research no 3M contrast ratio projector could be found. Confirm that the 3M is either an error or remains a requirement. If it is a requirement can the requirement writer provide an example, as a number of major projector manufacturers would like to know.	The projector specifications in the SRS have been corrected.
369	Book II Part IV, Annex A, A.1.39 Pg. 33	Note this question was asked earlier (Question 104), however the require does not make sense and is impractical, let alone available. Technically no medium projector can meet that large screen size. Note 15m is very large. The requirement is probably a typo, may be it should have been 40 cm to 600 cm in that case there are models that can meet the requirement. Please confirm that this is a typo and the realistic 600 cm requirement is acceptable. If the 15m requirement remains, can the requirement writer provide an example, as a number of major projector manufacturers would like to know.	The projector specifications in the SRS have been corrected.

370	"Book II Part IV, Annex A, A.1.31 to A.1.36 Pg. 29- 32"	There is an issue with the frequency employed by the MiFare RFID card reader and card, and Tempest acceptance. The tempest community is of the understanding NATO has not yet resolved or provided guidance for this issue. Please confirm that NATO has either provided clarification or will in time for the certification of the printer's MiFare RFID reader.	The Bidder shall offer equipment that meets the specifications described in the SRS. If investigations conclude that the equipment no longer meets TEMPEST standards then an amendment will be issued.
371	Book II, Part IV, Para 3.2.3.5.3, Page 20	Please confirm that only NATO-authorized Tempest suppliers found on the NIAPC web site are suitable, while EU only Tempest certified suppliers are not.	The Bidder shall offer equipment that meets the specifications described in the SRS. If investigations conclude that the equipment no longer meets TEMPEST standards then an amendment will be issued.
372	"Book II Part IV, Annex A, A.1.23 Pg. 26 & Section 1 thru 3.8.3 "	Clarification Question 232, seeks clarification regarding the network configuration of the XML-Guard, but it is not clearly addressed. Annex A of the SOW states that two (2) XML Guards will be supplied to the purchaser, however only one (1) XML Guard is discussed in the networking sections 1 & 2. Based on the descriptions of the other components it appears the XML-Guards are to be installed in a High Availability (HA) and high throughput configuration. Please confirm that one (1) set or pair of guards configured and operating in one location, maybe separate racks, and that provide a HA and load balancing to improve throughput capability between the NS and MS domains is acceptable to the customer.	There is no requirement for HA or load balancing for the XLGs. The intention is to have one of the two XLG appliances operational at any given time.

373	Book II part IV SOW Annex A – SRS 3.8.3 and Book II part IV SRS Annex A - A.1.23 Question 71	Considering that none of the COTS products listed in the in the NATO Information Assurance Product Catalogue (NIAPC) can fulfil all tender requirements for XML Guard, please confirm that NATO will accept a custom solution to be developed during the project execution.	Bidders are invited to propose any solution for the XLG, including a custom solution. However, the proposed XLG manufacturer and product are required to be on the NIAPC if not already included. Also, the Purchaser draws attention to the certification requirement in SRS section 3.8.3 paragraph [225], which states the XLG shall be evaluated to Common Criteria (CC) Evaluation Assurance Level (EAL) 4+ or national equivalent. The Bidder shall describe any delays, risks, or non-compliance to the requirements in SRS section 3.8.3 within their proposal.
374	Ref. IFB-CO-15049-BITI Book II Part IV, Section 9, paragraph 9.1.1 Question 71 Question 234	Please state if only one Security Accreditation Authority (SAA) will be involved or multiple SAAs (one for each Nation hosting the sites) will be involved in the Security Accreditation Process.	Only one Security Accreditation Authority (SAA) will be involved.
375	N/A	Is it permitted to offer in principle the follow-up products for products that go end of life?	Please refer to the guidance in Book II, Part II – Special Contract Provisions, clause 14.1. "If any COTS products specified in the Contract are upgraded or discontinued by their original providers for commercial or technological reasons, the Contractor shall propose their substitution by the new versions that are intended as market replacement of the original products. The proposed items shall provide an equivalent or enhanced performance without a price or life-cycle support cost increase and the Contractor shall be responsible for the installation, integration and transition of data and information to the new version."
376	SOW A.1.12; Bidding Sheets CLIN 6.6.30	As described in the SOW configuration this product should be Tempest C but CLIN 6.6.30 in the bidding sheets does not state this information. Please confirm if 6.6.30 should be Tempest C.	The server in CLIN 6.6.30 requires TEMPEST C certification.

377	2_IFB-CO-15049-BITI_Book I-Bidding Instructions AMD-2 (.PDF) 2.14. Bid Guarantee	Is it possible to post the required Guarantee in cash via direct bank deposit? If so, can NCIA provide the instructions regarding direct bank deposit?	no it is not possible to post the bid Guarantee in cash
378	FB-CO-15049-BITI_Book I – Bidding Instructions, section 3.6.6.1.5.5.	Requirements related to requirements tracing are unclear, please confirm: 1. Cross Reference – Traceability Matrix will be completed by the bidder using Annex F (stated in Bidding Instructions). It is not required from the bidder to extend the Annex F table by more detailed requirements, correct? 2. Requirements Traceability Matrix (RTM) will be prepared by the bidder and state all the requirements in Book II – Part IV SOW Annex A including the Bidders statement how to fulfil each requirement, correct? It is not required from the Bidder to provide a requirements Traceability Matrix for requirements stated in Book II – Part IV SOW Annex B, correct?	1. Yes 2. Yes. Being part of the Engineering proposal the functional requirements and deliverables stated in Section 1(SRS) will need to be detailed in the RTM as well using the guidance in Section 2 and 3(SRS). No RTM entries needed for the PFE Annex B in SOW in the bidding phase.
379		NATO have developed their own XML Guard capability in the past. Can the requirements be met by this NATO Product?	Assuming the question refers to the NC3A guard developed as part of the Intel Toolbox solution, this NATO Product does not meet the requirements as stated in section 3.8.3 of the SRS. The Purchaser is unable to comment on the applicability of this NATO Product in future NATO projects.
380	SOW, A.1.40	After consultation with various manufacturers, we cannot find a suitable product for the product listed in the SOW under A.1.40. The Optoma W335e Projector (E1P1A1YBE1Z1) complies with all features except the screen size. Would this product be acceptable as an alternative?	The projector specifications in the SRS have been corrected .
381	IFB-CO-15049-BITI_Book I – Bidding Instructions, section 3.6.6.1.4	Please confirm if we understand correctly the requirements related to Management proposal. Specifically: 1. Draft Project Management Plan (section 3.6.6.1.4.4) – the bidder will provide as part of the bid a draft PMP in accordance with requirements specified in Book II – Part IV SOW – Annex B, Section 4.1.4, including Section 7. Correct? 2. Draft Project Management Plan (section 3.6.6.1.4.4) – the bidder will not provide as part of the bid a draft PMS, PBS, PIP and Documentation Delivery plan in accordance with requirements specified in Book II – Part IV SOW – Annex B, Section 4.1.5., 4.1.6, 4.17 and 4.1.8. or any other document stated in Section 4. Correct?	1. Correct. 2. As clearly detailed the PBS(4.1.6.2) and PMS(4.1.5.2) shall be part of the initial PMP as details become more clear. PIP will be due before implementation as stated in 4.1.7.2 in the SOW and the Document Delivery plan will be due as stated in 4.1.8.1.

382	IFB-CO-15049-BITI_Book II – Part IV – Annex C Key Contractor Personnel	<p>Annex C Key Contractor Personnel contain the following points:</p> <p>C.1.3.The Bidder shall provide CVs for all identified key personnel that comply with the requirements described in the tables below.</p> <p>C.1.4.Supporting personnel are essential to the Project but are not identified as key personnel ... Do we understand the requirements correctly, that the bid will contain CVs for the Key Contractor Personnel specified in section “C.2 Key Contractor Personnel”, but not CVs for personnel specified in section “C.3 Supporting Personnel”?</p>	<p>Correct. Supporting personnel CV’s will not be part of the bid evaluation but they will need to be available for the project and their labour costs will be included in the various tasks needed to achieve the CLIN’s.</p>
383	IFB-CO-15049-BITI_Book I – Bidding Instructions, section 3.6.6.1.5.3	<p>Requirement 3.6.6.1.5.5.3 states: “The Bidder shall provide a description for each type of equipment or software in the SRS (ANNEX A Hardware and Software REQUIREMENTS) matching the SRS table format for each specific item.”</p> <ul style="list-style-type: none"> Do we understand the requirements correctly, that RTM (Requirements Traceability Matrix) must contain the requirements on such a level of detail that for each type of equipment or software and for each row in SRS table the bidder will state the proposed product or component. Is it correct? <p>What is the scope of RTM? We assume that only requirements in System Requirements Specification, Annex A will be included in RTM, correct?</p>	<p>Yes. Being part of the Engineering proposal the functional requirements and deliverables stated in Section 1(SRS) will need to be detailed in the RTM as well using the guidance in Section 2 and 3(SRS)</p>
384	IFB-CO-15049-BITI_Book I – Bidding Instructions, section 3.6.6.1.5.5.1	<p>Requirement 3.6.6.1.5.5.1 states:” The Bidder shall provide a Requirement Traceability Matrix (RTM) in accordance with SOW clearly identifying how it aims to fulfil each requirement.”. Book II – Part IV SOW Annex A contain sections that specify the contractor scope (Section 1) and System design (Section 2 and Section 3). In order to address these three sections, the bidder would need to prepare an initial draft of System Design and initial draft of PMS (Project management Schedule), PBS (Project Breakdown Structure) and PIP (Project Implementation Plan) documents. Our understanding is that the above-mentioned documents are not part of the bid, correct? If our understanding is correct, then requirements stated in section 1, 2, and 3 of Book II – Part IV SOW Annex A are informative and does not require to be addressed by the bidder, correct?</p>	<p>Please see answers to CR's 383 and 381.</p>
385	IFB-CO-15049-BITI_Book II – Part IV SOW Annex A	<p>The purchaser defined the “System Design” in Section 2 and 3 (Book II – Part IV SOW Annex A) and also defined a detailed “System Specification” in Book II – Part IV SOW Annex A – Annex A and “System quantities” in Book I – Annex A Bidding Sheets. We assume that any discrepancy between the System Design, System Specification and System Quantities is in N CIA responsibility and is not a reason for the bidder’s non-compliance. Is our assumption correct?</p>	<p>Correct. Any discrepancies will be addressed in Corrigendum to amendment 2 or after Site survey.</p>

386	IFB-CO-15049-BITI_ Book II – Part IV SOW Annex A & B and IFB-CO-15049-BITI_ Book I – Bidding Instructions	<p>It is not clear that which requirements stated in Book II – Part IV SOW Annex A and Book II – Part IV SOW Annex B are subject to evaluation. Requirement 3.6.4. states “Bidders respond to all of the technical requirements contained in the IFB Statement of Work (including all Annexes)”. However:</p> <ul style="list-style-type: none"> • In reply to question 126, NCIA states “Section 9 Security Accreditation (SA) will NOT be subject to the bid evaluation in this contract.” • We issued further clarification questions related to requirements in SOW Annex A and SOW Annex B, which are not clear whether they are/are not subject to evaluation. <p>Therefore, we request a clear and comprehensive clarification that which requirements are mandatory (subject to evaluation and must be addressed by the bidder) and which informative (not subject to evaluation and does not need to be addressed by the bidder).</p>	Please refer to answers to CR's 383, 381 and 378.
387	IFB-CO-15049-BITI_ Book I – Bidding Instructions – Section 3.6.2	<p>Based on requirements in section 3.6.2, NCIA requires that the Technical Proposal will contain 3 files – Management Proposal, Engineering Proposal and Supportability Proposal. However:</p> <p>1. The Cross Reference – Traceability Matrix and Executive summary are not part of the above stated files, therefore will require a separate file. Does NCIA accepts that requirements 3.6.6.1.1, 3.6.6.1.2, 3.6.6.1.3 will be added as a separate file? If not, to which file these requirements should be added?</p> <p>The Requirements Traceability Matrix (RTM) specified in 3.6.6.1.5.5 should be based on the requirements in excel format. Does NCIA accept that the Engineering Proposal will contain 2 files. One excel file containing RTM and one pdf containing System Design Specification and Testing requirements.</p>	Yes and Yes
388	IFB-CO-15049-BITI_ Book I – Bidding Instructions – 3.6.6.1.5	<p>The page limits for the Engineering Proposal are inconsistent. Requirement 3.6.6.1.5 states “...(90-page limit excluding Table of Content and Requirements Traceability Matrix)” The System Design Specification does not contain any page limits in requirement 3.6.6.1.5.4. However, requirement 3.7.1 states “System Design Specification (SDS) (No page limit)”. Does it mean that the page limit for the Engineering Proposal is set only for Testing (10-page limit). In that case it is not clear why there is a 90-page limit for the whole Engineering part.</p>	Limit to 3.7.1 SDS removed.

389	<p>IFB-CO-15049-BITI Part IV, Statement of Work, Annex A IFB-CO-15049-BITI Part IV, Statement of Work, Annex A System Requirement Specification</p>	<p>In 1.3 Contract Deliverables it is stated “The Contractor shall provide and install the following Automated Information Services (AIS) components: (1) Servers, Storage and VMware virtualisation and associated software solutions.”</p> <p>The wording indicates that Contractor should provide also licences for VMware products (e.g. ESXi). However no VMware licences are indicated in the requested servers specifications. In part 3.5.2 [166] it is stated that “The PFE VMWare software shall be installed on to the equipment provided in this contract to create a fully functioning and resilient VMWare vSAN Hyper Converged Infrastructure (HCI) that follows the VMware vSAN Datacenter Cluster and ROBO Deployment Reference Architecture.”</p> <p>Please clarify whether is there any VMware licence to be provided by the Contractor or all VMware products will be PFE.</p>	<p>VMware software is provided as PFE.</p>
390	<p>6_IFB-CO-15049-BITI_Book II- Part IV SOW Annex A AMD-2 Part IV, Statement of Work, Annex A System Requirement Specification</p>	<p>167) Virtual Machine (VM) templates shall be created to install up to 10 (Ten) Windows Server VMs that meet specifications to be provided by NCIA for each location and each network classification. Question. How many VM templates should be created for each location and each network classification?</p>	<p>Up to 10 for each network classification for each location, i.e. a maximum of 30 for each location.</p>
391	<p>5_IFB-CO-15049-BITI_Book II - Part IV Statement of Work including Annex B - Annex D AMD-2 (.PDF)_Corrigendum 2</p>	<p>4.3.3.15 The Contractor shall decommission and collect Customer equipment that will be replaced by new equipment from the project and move it storage areas identified by the site POC for disposal. 5.17. Decommissioning and Disposal of Equipment Question. Could we get a list of equipment per location which needs to be decommissioned?</p>	<p>The list of equipment to be decommissioned shall be identified during the site survey. The bidder should estimate that for every piece of equipment to be provided at a location a piece of equipment shall be decommissioned.</p>

<p>392</p>	<p>5_IFB-CO-15049-BIT1_Book II - Part IV Statement of Work including Annex B - Annex D AMD-2 (.PDF)_Corrigendum 2 4_IFB-CO-15049-BIT1_Book II - Part II, Contract Special Provisions AMD-2 (.PDF)</p>	<p>1.2.4 Additional engineering support shall be made available on a Level of Effort (LoE) basis to provide engineering support for Migration, Security Accreditation and Post Migration Support tasks which will be ordered (if required) in accordance with the task ordering process detailed at Clause 29 of the Contract Special Provisions. Each specific role and its requirements can be satisfied through more than one professional (up to 5 professionals to complete requirements) that can fulfil the overall job description.1.2.5 After the site surveys have been completed The Purchaser shall issue Task Orders (TOs) to the Contractor requesting qualified personnel needed to perform Migration, Security Accreditation and Post Migration Support tasks for a minimum of five (5) working days per person. 28. TASK ORDERS AND ORDERING RELATED TO ENGINEERING SUPPORT AND PROVISION OF SPARES 28.2. Within 5 working the Contractor will provide a quotation for the Task with full supporting data to enable evaluation. 28.3. Within 5 working days the Purchaser will either initiate negotiations on the Task Order or issue a Final firm fixed price Task Order Question. What if specific service for Migration, Security Accreditation and Post Migration Support tasks exceeds minimum of five (5) working days per person (for example duration is 10 days)? Could you confirm that in that case you will place 2 X Task Orders (TOs)? Where to put cost in Bidding sheets?</p>	<p>As stated in paragraph 1.2.4 Task Orders for engineering support will be issued for a MINIMUM of 5 working days. Multiple Task Orders may be issued depending upon the task to be performed and the location the task is to be performed at. Bidders can provide a breakdown of the cost for Engineering Support (i.e. labour, material, travel and ODC) in the detailed tabs available in the Bidding Sheets as per instruction available in each tab.</p>
<p>393</p>	<p>5_IFB-CO-15049-BIT1_Book II - Part IV Statement of Work including Annex B - Annex D AMD-2 (.PDF)_Corrigendum 2</p>	<p>5.5.3. The pricing of the items included in the RSPL shall be at the firm fixed prices of the equipment breakdown detailed in the appropriate tab of the bid submission. 5.5.5. Spares will not be delivered through the base contract and will be subject to separate Task Orders. Could you confirm appropriate tab of the bid submission, is it Material – EUR sheet or ODC sheet defined in 3_IFB-CO-15049-BIT1_Book I - Annex A Bidding Sheets AMD-2 (MS Excel)?</p>	<p>RSPL items are not part of the Bidding Sheets. RSPL Spares shall be specified and provided using a task order using the firm fixed pricing of equipment provided in the bid and contract.</p>

<p>394</p>	<p>5_IFB-CO-15049-BITI_Book II - Part IV Statement of Work including Annex B - Annex D AMD-2 (.PDF)_Corrigendum 2 IFB-CO-15049-BITI Amendment 4 CR5</p>	<p>5.3.5. Starting PSA until the end of Warranty the Contractor shall provide remote technical assistance on all support levels whenever required to enable the Purchaser to fully support, maintain and operate the capability.5.19.14. On-site interventions for maintenance and support activities from PSA until end of warranty are not foreseen and would be considered as an exception. In case Contractor on-site support following successful PSA is required, the Purchaser will raise an Engineering support Task Order (TO) under the conditions stated in section "Engineering support" of this SOW and the Contract Special Provisions.</p> <p>5.5.7. In accordance with the warranty section, the repairs or replacement of all faulty items on site shall be under the responsibility and cost of the contractor.</p> <p>137.</p> <p>It states in SOW 5.3.2. that the Purchaser is to perform HL1/2 and SL1/2 and up to Level 3 from PSA until the end of the Warranty Period. In 5.3.4 it states the Contractor is responsible from PSA for all HL3/4 and SL3/4. Can the Purchaser clarify who is responsible to deliver Level 3 support?</p> <p>The requirement for the Contractor to perform Support and Maintenance activities following PSA has been removed. SOW 5.3.2. will be changed to reflect that all Support and Maintenance Levels will be performed by the Purchaser. SOW 5.3.4. will be deleted</p> <p>Question.</p> <p>Related to the overall text above with aim to avoid misunderstandings, could you please confirm in which scenarios we need to offer 5.3.5 remote technical assistance and in which scenario we need to offer 5.5.7 repairs or replacement of all faulty items on site shall be under</p>	<p>Paragraph 5.19.4 has been removed, the text in paragraph 5.19.5 applies.</p>
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<p>395</p>	<p>5_IFB-CO-15049-BITI_Book II - Part IV Statement of Work including Annex B - Annex D AMD-2 (.PDF)_Corrigendum 2</p>	<p>5.19.4. In case of failures of NFE/PFE items due to the execution of this project or failures of Contractor delivered items, the Contractor shall repair/replace the faulty items, at its own expenses and under its responsibility, with the highest priority allocated and shall be responsible to return the item to the destination site.5.19.5.The warranty shall cover the installation and integration activities, workmanship, adaptations, changes, analyses, documentation, software, firmware, licenses and the equipment specifically provided by the Contractor for the purposes of the current Project and shall exclude all other equipment provided as PFE or NFE Question. Could the customer confirm which statement is correct related to NFE/PFE, 5.19.4 or 5.19.5? To avoid misunderstandings and calculate all required cost, could you please confirm scope for Warranty and Maintenance and Support Concept which needs to be covered in our offer? Please mark bellow all which applies. a) All equipment specifically provided by the Contractor b) B.1.1 Purchaser Furnished Equipment (PFE), hardware and software that will be provided by the Purchaser and is required for the Contractor to implement the solution described in the SOW and SRS. c) B.1.2. Existing equipment and services that will remain at the sites to be implemented will not be identified in detail and includes but is not limited to: • Technical facilities, • Power and network cabling & conduits • Equipment racks, cabinets, UPS and power distribution</p>	<p>Paragraph 5.19.4 has been removed, the text in paragraph 5.19.5 applies.</p>
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396	5_IFB-CO-15049-BITI_Book II - Part IV Statement of Work including Annex B - Annex D AMD-2 (.PDF)_Corrigendum 2	5.19.4. In case of failures of NFE/PFE items due to the execution of this project or failures of Contractor delivered items, the Contractor shall repair/replace the faulty items, at its own expenses and under its responsibility, with the highest priority allocated and shall be responsible to return the item to the destination site. 5.19.5.The warranty shall cover the installation and integration activities, workmanship, adaptations, changes, analyses, documentation, software, firmware, licenses and the equipment specifically provided by the Contractor for the purposes of the current Project and shall exclude all other equipment provided as PFE or NFE Question. Could you please confirm that Warranty and Maintenance, and Support Concept needs to be covered only for Contractor delivered items (HW/SW equipment) specifically provided by the Contractor for TECHNICAL REFRESH OF BALKANS IT INFRASTRUCTURE (BITI) project?	Paragraph 5.19.4 has been removed, the text in paragraph 5.19.5 applies.
397	6_IFB-CO-15049-BITI_Book II - Part IV SOW Annex A AMD-2, 3_IFB-CO-15049-BITI_Book I - Annex A Bidding Sheets AMD-2 (MS Excel)	According to the SafeCom licensing policy, devices registered on one SafeCom Enterprise Server cannot be moved and connected to another SafeCom Enterprise Server without additional fee. Due to this reason please specify the exact number of devices covered by this tender that will be connected to each SafeCom Enterprise server?	The requirement is for unlimited server licence. In the unlikely scenario that there is a need to move a device from one server to another after implementation this will be the responsibility of NCIA. The bidder shall quote for the quantity specified in the Bidding Sheets.
398	6_IFB-CO-15049-BITI_Book II - Part IV SOW Annex A AMD-2	Kofax Ethernet Card Reader requires either power supply or power over ethernet. Could you please confirm that power supply or power over ethernet will be available on the installation location?	Only normal power supplies will be used.
399	6_IFB-CO-15049-BITI_Book II - Part IV SOW Annex A AMD-2	A.1.17 Tape Library Question: Considering that the MSL4040 Library is End of Life, are we allowed to offer the devices with three drives instead of four drives. The newer devices of all the vendors which are technical equivalent to the MSL4040 model all come with three drives.	The specifications in the SRS have been amended, also refer to the guidance in Book II, Part II – Special Contract Provisions, clause 14.1. "If any COTS products specified in the Contract are upgraded or discontinued by their original providers for commercial or technological reasons, the Contractor shall propose their substitution by the new versions that are intended as market replacement of the original products. The proposed items shall provide an equivalent or enhanced performance without a price or life-cycle support cost increase and the Contractor shall be responsible for the installation, integration and transition of data and information to the new version."

400	6_IFB-CO-15049-BITI_Book II - Part IV SOW Annex A AMD-2	A.1.26 Racks Question: Are we allowed to offer the Rack cupboard from different manufacturer other than HPE?	Racks from any manufacturer that meet the required specifications may be offered, racks from HPE are preferred.
401	6_IFB-CO-15049-BITI_Book II - Part IV SOW Annex A AMD-2	A.1.27 Rack Peripherals Question: Are we allowed to offer the Rack Peripherals from different manufacturers other than HPE?	Rack Peripherals from any manufacturer that meet the required specifications may be offered, rack peripherals from HPE are preferred.
402	6_IFB-CO-15049-BITI_Book II - Part IV SOW Annex A AMD-2	A.1.25 Proxy device In order to offer you a valid replacement for the outdated BlueCoat510-10 ProxySG device, we have a question:What is the average volume of traffic (bandwidth) through the proxy (Mbps) and the volume of traffic at the peaks (HTTP / HTTPS) that should be met by the offered device?	As specified in SRS section A.1.25 requirement 5, the proxy must support 1000 concurrent users.
403	IFB-CO-15049-BITI Part IV, Statement of Work, Annex A System Requirement Specification	It is not clear how the vSAN clusters will be organized across security classifications and what are the capacity requirements per security classification. However, the total capacity of all the Virtual Host Server and storage Servers is more than triple in terms of storage capacity and even more in the terms of CPU and RAM requirements mentioned in the 3.5.2 [170]. Is it correct to assume the [170] requirement will be satisfied by delivering the servers meeting the capacity requirements defined in A.1 Hardware and software Requirements? If not, please indicate what CLINs specifically are to be combined into the Datacenter Cluster that are required to meet the [170] requirements. If it were not specified, the Bidders would be forced to count with the specifications in all the possible variants which would lead to unnecessary and very ineffective overpricing.	Yes, the servers requested in A.1 Hardware and Software Requirements will enable the delivery of all other listed requirements.
404	IFB-CO-15049-BITI Part IV, Statement of Work, Annex A System Requirement Specification	Based on the requirements for warranty stated in Book II, Part IV, SOW – Annex B, point 5.19.1 – “The Contractor shall warrant all items (HW and SW) furnished under this contract for a minimum of twelve (12) months following FSA.” However, the bidding sheet and SOW – Annex A contain items that must be delivered with 1 year support and before FSA. For example item A.1.52 (SAFECOM Software Maintenance & Support, 1 year) must be delivered EDC+10 weeks. In case that the bidder would deliver the items as requested (with 1 year support) in Bidding Sheet, than the requirement 5.19.1 in SOW – Annex B wouldn’t be fulfilled. The same problem is with items A.1.23, A.1.20, A.1.21. Please advise, should the bidder price the equipment based on the Bidding sheet and SOW-Annex A or should the bidder increase for these items the warranty/support period in accordance with 5.19.1 of SOW – Annex B?	The requirement is to have the equipment and software covered from CAW to FSA+1 year by warranty and Software O&M. That being said software can be procured and activated when it is required(i.e. at instalation/testing phase) in order to optimize costs.

405	IFB-CO-15049-BITI Part IV, Statement of Work, Annex A A.1.32	Are media converters required for COTS A3 printer (A.1.32) or only for TEMPEST B/C versions ?	Yes
406	IFB-CO-15049-BITI Part IV, Statement of Work, Annex A A.1.1.1	In A.1.1.1 [2], in the table, line # 1), the specified PID (ISR4451-X-K9) does not match the description in the "Minimum Requirements" column (Cisco ISR 4451 Sec Bundle, w/Sec license). The license that the SEC bundle includes (SL-44-SEC-K9) is specified under A.1.1.7. Which one is correct, the "PID" or the "Minimum Requirements" column?	There is a discrepancy between the PID and Minimum Requirement in A1.1.1. table line 1. The correct version for Minimum Requirement should just read Cisco 4451-X/K9 without any bundle reference. Additionally, the line (6) above listing router specifications "(6) Capable of performing IPSEC encryption up to the router throughput data rates of 1Gbps" should be disregarded as this capability comes from combining the router itself (A.1.1.1) and the license (A.1.1.7) and these should be treated as two separate CLINs
407	IFB-CO-15049-BITI Part IV, Statement of Work, Annex A A.1.1.1	In A.1.1.1 [1] The large router shall feature the following specifications: ... (10) Support for virtualization techniques (VRF) Is VRF-lite support sufficient to fulfil this requirement?	VRF-lite support is sufficient to fulfil the requirement
408	IFB-CO-15049-BITI Part IV, Statement of Work, Annex A	SOW Annex A contains for most items a specification (for example for A.1.1.1 the specification is in point [1]) and a detailed product configuration (for example for A.1.1.1 the configuration is in point [2]). We would like to propose few changes in the product configuration in our bid, these changes will respect: • the vendor and product proposed by NCIA; • the required minimum specification defined by NCIA; Does NCIA accept these types of changes?	No, for this specific product we can't accept the proposed changes.
409	IFB-CO-15049-BITI Part IV, Statement of Work, Annex A A.1.26.1	SOW states that front door of rack needs to be equipped with single pane safety glass. Safety glass front door limits the air flow of the rack. Does the customer accept different solution of front door panel (f.e. perforated metal sheet) that maintains the visibility into the rack and security features, while allowing better air flow for the rack front door?	No, the Bidder shall offer equipment that meets the specifications.
410	IFB-CO-15049-BITI Part IV, Statement of Work, Annex A A.1.8 and A.1.9.	Minimum requirements for the Virtual Host Server and Storage (Large and Medium) states 1 x VGA/Display Port. Is VGA only sufficient?	Yes

411	IFB-CO-15049-BITI Part IV, Statement of Work, Annex A A.1.14 and A.1.15	Backup Server specification requires an SFF server with LFF Enclosure – as stated in the answer to the question 251. We kindly ask the Purchaser to review the types of drives vs server types. We do believe it should be 8x12TB SAS 12G Midline 7.2K SFF (to be included in the SFF Server) and 12x 12TB SAS 12G Midline 7.2K LFF (for the additional enclosure) for the Large Backup Server. Accordingly, only SFF drives for the Small Backup Server. Is this assumption correct?	Bidders may also offer LFF drives for the System Tier - 300GB disks
412	IFB-CO-15049-BITI Part IV, Statement of Work, Annex A A.1.10	We kindly ask the Purchaser to review the number of items in the Virtual Host Server and Storage (Small) configuration. For example, it does not make sense to use six 800W power supplies for the server.	Please review the question, we cannot find any mention of "six 800w power supplies" for that item in the SRS at Annex A.
413	IFB-CO-15049-BITI Part IV, Statement of Work, Annex A A.1.8 and A.1.9.	The support requirement is stated as “3 Year Next Business Day Support 24x7 with Media Retention Service” We believe it should be either NBD or 24x7. Please clarify.	As specified, there must be a reponse to the support call by the next business day and any fulfilment of service or delivery shall be fulfilled 24 hours a day 7 days a week.
414	Book II Part IV, Annex A, A.1.49 Pg. 38	For licenses that are nation specific what nation should the vendor provide the license to? There are a few options: 1) License each SaaS to the country it will be deployed to. 2) License all SaaS to Belgium NCIS Agency HQ, or 3) License all SaaS to any NATO Country for deployment to the location of NATO's choice.	To NCIA.
415	Book II Part IV, Annex A, A.1.50 Pg. 39	What is the required period of service for any SaaS procurements? As an example, SaaS products would have monthly or yearly terms, and some yearly terms are available incrementally for up to 5 years. Confirm the number of years the purchaser would like quoted, for this and other similar SaaS packages. For example; 1, 3, or 5 Years.	If not specifically requested licencing shall cover CAW to FSA+1 year.

416	Book II Part IV, Annex A, A.1.1.1 Pg. 4	There is a component configuration issue with the Router Large as described in Annex A. When we requested pricing for the configuration provide the Cisco engineer was not allowed to select components as presented. Please confirm that the configuration as described is selectable and is allowed and offered by Cisco.	It appears there has been a recent change in the Cisco Commerce tool, and the list of items displayed in A.1.1.1 was compiled with the previous version of the tool. The current version produces a different formatting output which simply lists the hardware and software components in addition to the plain router platform itself, ignoring certain lines present in the original listing. The mandatory elements for A.1.1.1 are: - Cisco ISR 4451 (4GE,3NIM,2SM,8G FLASH,4G DRAM) - Performance on Demand License for 4400 Series FL-44-PERF-K9- - 8-port Layer 2 GE Switch Network Interface Module NIM-ES2-8 - Power Supply (Secondary PS) for Cisco ISR 4450 PWR-4450-AC/2 - AC Power Cord (Europe), C13, CEE 7, 1.5M CAB-ACE (all these items to be delivered in quantities specified in table under A.1.1.1)
417	Book II Part IV, Annex A, A.1.3.1 Pg. 9	There is a component configuration issue with the Core Switch as described in Annex A. When we requested pricing for the configuration provide the Cisco engineer was not allowed to select components as presented. Please confirm that the configuration as described is selectable and is allowed and offered by Cisco.	It appears there has been a recent change in the Cisco Commerce tool, and the list of items displayed in A.1.3.1 was compiled with the previous version of the tool. The current version produces a different formatting output which simply lists the hardware and software components in addition to the plain switch platform itself, ignoring certain lines present in the original listing. The mandatory elements for A.1.3.1 are: - Catalyst 9500 24x1/10/25G and 4-port 40/100G, Advantage - 650W AC Config 4 Power Supply front to back cooling C9K-PWR-650WAC-R - 650W AC Config 4 Power Supply front to back cooling C9K-PWR-650WAC-R/2 - Power Cord, 250VAC 10A CEE 7/7 Plug, EU CAB-9K10A-EU - C9500 DNA Advantage, Term License C9500-DNA-24Y4C-A- - DNA Advantage 5 Year License C9500-DNA-L-A-5Y - PI Dev Lic for Lifecycle & Assurance Term 5Y PI-LFAS-AP-T-5Y
418	Book II Part IV, Annex A, A.1.36 Pg. 36	All "Digital Senders" are to be Tempest C certified and be connected to a fibre network. However, there are no media converters identified in Annex A Section A.1.36. Confirm that media converters are required.	Media converters have not been specified for this item.

419	Book II Part IV, Annex A, A.1.51 Pg. 40	The product selected might not be able to control specific print job for the plotters. It can authorize all print jobs when an authorized person is at the plotter. As only authorized personnel will be at the plotter for the print job the process will meet the intent of controlling who has access to the plotter output. Is this acceptable?	Yes
420	2_IFB-CO-15049-BITI_Book I-Bidding Instructions AMD-2 (.PDF), 3.6.6.1.4.5.3. & 3.6.6.1.4.5.4.	In the management proposal, the "Bidder Qualification" have a limitation of 17 pages. This includes at least two references required as well as four proposed key personnel. However, for the key personnel, the CV/ resume template is three pages and the attestation of security clearance another page, summing up to 4 pages per key personnel. Therefore, just the key personnel already account to a total of 16 pages. Therefore, can the limitation for the number of pages be increased to 30 pages for the "Bidder Qualifications" to allow a detailed description regarding the profiles and references?	Yes, we can accept a 30 page limit.
421	IFB-CO-15049-BITI Part IV, Statement of Work, Annex A A.1.28.2	According to the Bidding Sheet, the total quantity of A.1.28.2 UPS 8KVA is zero. Does it mean that the item will not be delivered and doesn't need a price included in the proposal?	Yes
422	IFB-CO-15049-BITI Part IV, Statement of Work, Annex A A.1.29	The A.1.29, 3kVA UPS, is the only UPS that has a vendor and model specified "APC Smart-UPS SRT". Can the customer confirm that there can not be any other model of 3kVA UPS delivered? Large UPS (A.1.28.x) don't have a vendor and model specified. What is the reasoning for this decision?	Yes, the Bidder may offer another brand with the same performance requirements.
423	IFB-CO-15049-BITI Part IV, Statement of Work, Annex A A.1.51 and 1.52	The cost of licenses for SAFECOM Enterprise Server License (item A.1.51 and A.1.52) depends on the type and quantity of printers that are connected to SAFECOM. Do we assume correctly, that NATO does not require from the bidders to price the SAFECOM licenses for PFE printers? If yes, please provide the type, quantity and location of PFE printers that will be connected to SAFECOM. Please be aware that the vendor does not provide license types for unlimited printers.	There will potentially be PFE printers. As a minimum the Bidder shall offer licences to cover all printers and plotters specified.
424	IFB-CO-15049-BITI Part IV, Statement of Work, Annex A A.1.2.2	Point [15] states: The Data Center Top-of-Rack platform meeting the above requirements is a Dell S4048-ON. The "above requirements" part refers to point [14]. However, this switch does not fulfill requirement (1) from point [14] "Switching capacity up to 2Tbps" as it has a switching capacity of 1.44Tbps. Dell S4048-ON will be EoS at the end of the year. The replacement recommended by Dell - S4148F-ON – has 1.76Tbps switching capacity and does not fulfill the requirement either. Will this switch platform be accepted or should we ignore the platform recommendation and fulfill all requirements?	The requirement (1) - Switching capacity up to 2Tbps" should be 1.76 Tbps The preferred platform is Dell S4148F-ON and the switching capacity of 1.76Tbps offered by this platform fully satisfies the project requirements for Data Center switch.

425	IFB-CO-15049-BITI Part IV, Statement of Work, Annex A A.1.2.1 and A.1.2.2	<p>In the tables in points [13] and [15], there is a requirement for the following transceivers: Dell Networking, Transceiver, 40GbE QSFP+ SR4, MTP, MMF Dell Networking, Transceiver, 40GbE QSFP+ LR4, MTP, SMF The information from the vender is, that they do not have MTP transceivers as specified in the requirement. Will the following transceivers be accepted?</p> <p>Dell Networking, Transceiver, 40GbE QSFP+, SR4, 850nm, MPO, 100-150m Reach on OM3/OM4, MMF Dell Networking, Transceiver, 40GbE QSFP+ LR4, 10km Reach on SMF</p>	<p>Yes, the trancheivers described as: - Dell Networking, Transceiver, 40GbE QSFP+, SR4, 850nm, MPO, 100-150m Reach on OM3/OM4, MMF - Dell Networking, Transceiver, 40GbE QSFP+ LR4, 10km Reach on SMF satisfy the requirement.</p>
426	IFB-CO-15049-BITI Part IV, Statement of Work, Annex A A.1.47	Rugged laptop requires TEMPEST B and specifications does not include media convertor like other TEMPEST peripheries. Is it missing or it's not required?	Media converters have not been specified for this item.
427		Answers to questions 358 and 373 seem to indicate that a non-compliant device may be acceptable. Can this be confirmed?	No, no non-compliant offer in this area is allowed. The XLG specifications in the SRS have been amended.
428	2_IFB-CO-15049-BITI_Book I-Bidding Instructions AMD-2 (.PDF) 2.14 Bid Guarantee Responses to Clarification Requests #6, IFB Ref. #377	<p>We were bidding in numerous NCIA biddings in which we have provided the bid Guarantee via direct bank deposit (i.e. IFB-CO-14760, IFB-CO-14971, RFQ-CO-14764-DCIS,...). This option was always accepted by NCIA.</p> <p>Similarly, we have signed contracts with NCIA for which we have provided the Performance guarantee also via direct bank deposit.</p> <p>We kindly ask to reconsider the statement and accept the option for providing the bid Guarantee via direct bank deposit. Otherwise, NCIA limits the bidders and increases the cost for bidders to secure a bid guarantee.</p>	Refer to Para 2.14.5 of the Bidding Instructions. Purchaser allows Bidder to post the required Guarantee in cash (via direct bank deposit) or by certified cheque to be submitted in the Bidders Bid Administration Package. If any company wants to make a direct bank deposit they should contact the POC for details of how to do this
429	IFB-CO-15049-BITI Part IV, Statement of Work, Annex B Testing	<p>Requirements stated in SOW, Annex B, Section 6 does not state the relation between Test Phases and Project milestones, therefore please confirm:</p> <p>The IVV Assessment as described in section 6.1 for both TVVA Phases (IVV Assessment & Site Acceptance Testing) will be performed for each Delivery Destination and each PSA (Provisional System Acceptance) and FSA (Final System Acceptance). Correct?</p>	Yes, Correct.

430	IFB-CO-15049-BITI Part IV, Statement of Work, Annex B Testing	SOW, Annex B, Section 6 does not contain requirements related to tests that are mentioned in requirement 6.3.1 (...IVVA will take place once the build phase(s), engineering testing, qualification testing and Factory Acceptance (FA) have been completed), specifically: Engineering Tests Qualification Tests Factory Acceptance Tests. Please provide detailed requirements and milestones for the above-mentioned tests	The complete list of requirements and milestones will be agreed after contract award mainly after desing is fixed and will be developed with the PIP.
431	IFB-CO-15049-BITI Part IV, Statement of Work, Annex B Testing	SOW, Annex B, Section 9 contain multiple requirements that require Contractor support (i.e. 9.1.4, 9.1.6, 9.1.8), however the Bidding sheet does not contain any CLIN items in which the Bidder could estimate the cost for these requirements. Where in the bidding sheet should the Bidder add the cost for services related to Security requirements in Section 9.	The support will be done through engineering support Task orders.
432	Cover Letter for Amendment 5 and Clarification Requests Release # 6	The Cover Letter as supplied by NCIA for AMD5 & CR#6 shows what documents are part of the corrigendum. The "Book 1 Bidding Instructions (amendment 2 Corrigendum version)" document has not been part of the documents received by the Bidder. Can the Purchaser please provide this updated document?	the document was omitted in error the revised bidding instructions are in the latest amendment
433	Book I - Annex A - Bidding Sheets AMD5 CLIN summary and CR #328	The response to CR #328 states that equipment that has EDC +10 weeks ETA shall be ordered at EDC. The Bidder would like to make clear that tempestrating the equipment typically takes 8-12 weeks. The overall time required for equipment ordering, delivery and tempestrating will therefor take much longer than the requested 10 weeks (typically 16 weeks). Can the Purchaser please reconsider its response to CR #328 and provide a realistic milestone for KFOR HQ site so that a realistic delivery schedule can be presented in the proposal?	No
434	IFB-CO-15049-BITI_ Book I – Bidding Instructions – 3.6.6.1.5.4	Following the response to CR #116, in which the Purchaser confirms that only the communication/collaboration plan to reach the SDS is requested, the Bidder cannot find any requirements for this collaboration plan in the Bidding Instructions or SOW. Can the Purchaser please provide guidance as how this collaboration plan should look like, what is requested?	The collaboration plan should detail how the bidder aims to support the NCI Agency in finalizing the SDS.

435	IFB-CO-15049-BITI_ Book I – Bidding Instructions – 3.6.6.1.5.4	Following the updates to the SOW requirements in AMD5 and CR #6, please confirm the Bidder's understanding that the Engineering Proposal requested consists of a collaboration plan, the Requirements Traceability Matrix (RTM) and Testing?	Correct.
436	Book II – Part IV – SoW Annex A – SRS AMD5 Section 3.8.3 and CR#358	Since no XML Labelling Guard (XLG) which is both compliant to all requirements in SRS 3.8.3 and which is included in the NATO Information Assurance Product Catalogue (NIAPC) can be found in the market, can the Purchaser consider to provide the XLG as PFE?	The XLG specifications in the SRS have been amended.
437	Book II – Part IV – SoW Annex A – SRS AMD5 mod 2_Corr_marked	The Bidder noticed that with the latest Amendment 5, the requirement for Redundant Power Supply has been removed from all Servers configurations (A.1.8 - A.1.15). Considering that these servers are critical and could have impact on the overall availability, could the Purchaser please confirm whether power supply redundancy is required or not?	The Item "Power Hot Plug Low Halogen Power Supply Kit" is the additional redundant power supply.
438	Book II – Part IV – SoW Annex A – SRS AMD5 mod 2_Corr_marked	Referring to A.1.8 to A.1.15, there is a "Network" requirement specified as "4 x 1GbE embedded LAN Ports". The quantity of this item is also 4. Could the Purchaser please clarify what is the total number of the required "1GbE embedded LAN Ports", per server?	The required quantity of "1GbE embedded LAN Ports" is 4 in total.
439	Book II – Part IV – SoW Annex A – SRS AMD5 mod 2_Corr_marked	Referring to A.1.20. Item#12 specifies that the offered Firewall should have 8x 10G SFP+ ports. Also, the requirement#13 specifies that the number of SFP+ short reach 10 Gb optical transceivers should also be 8 which means that the Firewall should be offered as "fully-populated". Could you please confirm the number of SFP+ transceivers that needs to be offered, per Firewall?	As specified in SRS section A.1.20 requirement #13, each firewall must be supplied with 8 SFP+ transceivers for the 8 SFP+ ports in requirement #12.
440	Book II – Part IV – SoW Annex A – SRS AMD5 mod 2_Corr_marked	Referring to A.1.20 and as explained in the CR #261 (8 new Firewalls are required). Could the Purchaser please confirm how the total quantity stated in the requirement #13 (A.1.20) should be considered? a. total of 8 SFP+ short reach 10Gb transceivers for all new Firewalls or b. total of 64 SFP+ short reach 10Gb transceivers for all new Firewalls (8 SFP+ transceivers per Firewall)"	The bidding sheets specify 9 new firewalls. Therefore, SRS section A.1.20 requirement #13 equates to 72 SFP+ short reach 10Gb transceivers.
441	Book II – Part IV – SoW Annex A – SRS AMD5 mod 2_Corr_marked	Referring to A.1.20 and as explained in CR #264 (each pair of firewalls will be used as a high availability cluster). Could the Purchaser please confirm if the High Availability (clustering) is planned to be achieved via (SFP+ long reach 10 Gbps) as described in item #18?	Confirmed.

442	Book II – Part IV – SoW Annex A – SRS AMD5 mod 2_Corr_marked	Referring to A.1.20. Could the Purchaser please confirm how many 40G QSFP+ active optical cables are required per Firewall, as described in item #15?	The SRS item has been amended to be a transceiver instead of a cable assembly. As specified in SRS section A.1.20 requirement #15, each firewall must be supplied with 2 transceivers.
443	Book II – Part IV – SoW Annex A – SRS AMD5 mod 2_Corr_marked	Referring to A.1.20. Could the Purchaser please explain what would be the purpose of the 40G QSFP+ active optical cables, described in item #15?	The purpose of SRS section A.1.20 requirement #15 is to give the Purchaser the option of connecting the firewall over 40G in the future.
444	09_IFB-CO-15049-BITI_Book II - Part IV SOW Annex A System Requirements Specifications corr clean	<p>Could you confirm that we need to offer 16 X 1GbE ports for servers?</p> <p>Example A.1.8 Virtual Host Server and Storage (Large) -image -</p> <p>Before you asked for : - image-</p> <p>We don't have opportunity to ask questions anymore, so please advise about configuration. It is probably a mistake, instead of 4 marked in yellow should be value 1 for quantity. Can you please confirm?</p>	The required quantity of "1GbE embedded LAN Ports" is 4 in total.
445	Book II - Part IV Statement of Work Section 5.10.15. - Table 11 General Training / No of Participants	Referencing the courses detailed in Table 11 and the status of the following training: "Implementing Cisco IP Switched Networks v2.0 (SWITCH)" has been replaced by ENCOR. Can the Purchaser please confirm that the SWITCH trainings should be delivered with the replacement ENCOR training and please update the requirement table?	Confirmed. Please refer to Section 14 in Contract special provisions. Any end of life product will be replaced by the recommended replacement.
446	Book II - Part IV SOW A.1.31	In the SOW under item A.1.31 a printer with the designation "Color Laserjet Pro A4 Colour Network Printer" is required. With the Pro models only pin-print solutions are possible, which send the print job unencrypted. The print job can only be sent directly to a printer and not to a server. However, it is intended that the print job is sent to a server. In addition, the process requires an external E-Line Box, which entails additional costs and effort. Therefore, we assume that the Enterprise model is more appropriate than the Pro model. We ask for your feedback.	For bid purposes the bidders should meet the requirements stated in the SOW
447	Book II – Part IV – SoW Annex A – SRS AMD5 A.1.8	Considering that the identified 1st Gen Intel Xeon-Platinum 8168 CPU is EOS (Item#2), can the Purchaser please confirm if the 2nd Gen successor Intel Xeon-Platinum 8268 would be the applicable replacement?	Under Consideration

448	Book II – Part IV – SoW Annex A – SRS AMD5 A.1.8	Considering that the identified 1st Gen Intel Xeon-Platinum 8168 CPU is EOS (Item#2), can the Purchaser please confirm whether more cost effective alternates, such as Intel Xeon-Gold 6248R, can also be considered compliant, as long as CPU Frequency, Cores and on-chip cache match or exceed the identified CPU in the SRS?	Under Consideration
449	Book II – Part IV – SoW Annex A – SRS AMD5 A.1.9	Considering that the identified 1st Gen Intel Xeon-Gold 6148 CPU is EOS (Item#2), can the Purchaser please confirm if the 2nd Gen successor Intel Xeon-Gold 6248 would be the applicable replacement?	Under Consideration
450	Book II – Part IV – SoW Annex A – SRS AMD5 A.1.9	Considering that the identified 1st Gen Intel Xeon-Gold 6148 CPU is EOS (Item#2), can the Purchaser please confirm whether more cost effective alternates, such as Intel Xeon-Gold 6242R, can also be considered compliant, as long as CPU Frequency, Cores and on-chip cache match or exceed the identified CPU in the SRS?	Under Consideration
451	Book II – Part IV – SoW Annex A – SRS AMD5 A.1.10	Considering that the identified 1st Gen Intel Xeon-Gold 6132 is EOS (Item#2) without a direct successor, can the Purchaser confirm if the 2nd Gen next in line successor Intel Xeon-Gold 6242 would be the applicable replacement?	Under Consideration
452	Book II – Part IV – SoW Annex A – SRS AMD5 A.1.10	Considering that the identified 1st Gen Intel Xeon-Gold 6132 is EOS (Item#2) without a direct successor, can the Purchaser please confirm whether more cost effective alternates, such as Intel Xeon-Gold 6226R, can also be considered compliant, as long as CPU Frequency, Cores and on-chip cache match or exceed the identified CPU in the SRS?	Under Consideration
453	Book II – Part IV – SoW Annex A – SRS AMD5 A.1.12 A.1.13 A.1.14 A.1.15	Considering that the identified 1st Gen Intel Xeon-Silver 4114 is EOS (Item#2) can the Purchaser please confirm if the 2nd Gen successor Intel Xeon-Silver 4214 would be the applicable replacement?	Under Consideration
454	Book II – Part IV – SoW Annex A – SRS AMD5 A.1.12 A.1.13 A.1.14 A.1.15	Considering that the identified 1st Gen Intel Xeon-Silver 4114 is EOS (Item#2), can the Purchaser please confirm whether more cost effective alternates, such as Xeon-Silver 4210R, can also be considered compliant, as long as CPU Frequency, Cores and on-chip cache match or exceed the identified CPU in the SRS?	Under Consideration

INVITATION FOR BID

IFB-CO-15049-BITI

Technical Refresh of Balkans IT Infrastructure

Authorisation/Serial No.:
2017/1CM03034 / 2019/1IS03035



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

IFB-CO-15049-BITI

Technical Refresh of Balkans IT Infrastructures

BOOK I

BIDDING INSTRUCTIONS

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SECTION 1 INTRODUCTION

1.1. Purpose

- 1.1.1. The purpose of this Invitation for Bid (IFB) is to award a Contract for the procurement and implementation of IT Infrastructure Technical Refresh in the Balkans Theatres.
- 1.1.2. The aim of the project is to address the software and hardware lifecycle replacement and the consolidation of servers and network devices on MISSION SECRET, NATO SECRET and NATO UNCLASSIFIED networks within the BALKANS Joint Operation Area (JOA).
- 1.1.3. In addition, this project replaces the obsolete PABX infrastructure in NHQ Sarajevo with up to date VoIP solution already implemented across other NATO HQs.
- 1.1.4. Crisis Response Operations Urgent Requirements (CUR) 1896-2017 will perform the technical refresh of the Balkans Information Technology (IT) Infrastructure replacing obsolete hardware and unsupported software supporting Communications and Information Systems (CIS). The CIS supports the NATO and EUFOR missions in the BALKANS Joint Operations Area (JOA) and at the supporting headquarters at SHAPE (EUSG) and NAPLES (EUCE).
- 1.1.5. Completion of this project shall ensure that NHQ Sarajevo and KFOR can provide and maintain a reliable, fault tolerant, secure, efficient and responsible IT infrastructure in support of their mission C2 processes.
- 1.1.6. The Bidder shall provide and implement the performance requirements as set forth in the relevant Statement of Work (Book II Part IV) and in the Schedule of Supplies and Services (Book II Part I) in the manner, and at times and the place, stated in the prospective Contract.
- 1.1.7. The Bidder shall refer to the Purchaser all queries for a resolution of conflicts found in information contained in this document in accordance with the procedures set forth in §2.8 of the Bidding Instructions entitled “Requests for RFQ Clarifications”.
- 1.1.8. The target date for Contract Award is November 2020.

1.2. Overview of the Prospective Contract

- 1.2.1.** The Prospective Contract (Book II) requires the selected Contractor to deliver the full scope as described in this IFB. The Contractor shall perform all activities required per Book II Part IV (Statement of Work (SOW)) and its Annexes and shall deliver the associated deliverables per Book II Part I (Schedule of Supplies and Services (SSS)).
- 1.2.2.** The Contract resulting from this IFB shall be awarded on a Firm-Fixed-Price basis.
- 1.2.3.** The Contract will be governed by Book II, Part II (Contract Special Provisions), and Part III (Contract General Provisions).

1.3. Governing Rules and Eligibility

- 1.3.1.** This solicitation is issued in accordance with the Alliance Operations and Missions NSIP Procurement Regulations set forth in the NATO document AC/4-D(2011)0009-Final.
- 1.3.2.** Pursuant to these procedures, bidding is restricted to companies from participating NATO member nations (see paragraph 0) for which either a Declaration of Eligibility has been issued by their respective government authorities or is an active holder of an NCI Agency Basic Ordering Agreement (BOA).

1.4. Lowest Compliant Bidding (LCB) Evaluation Method

- 1.4.1.** The evaluation method to be used in the selection of the successful Bidder under this solicitation is the Lowest Compliant Bidding Procedures set forth in AC/4-D(2011)0009-Final.
- 1.4.2.** The bid evaluation criteria and the detailed evaluation procedures are described in SECTION 4.
- 1.4.3.** This IFB will not be subject to a public bid opening.

1.5. Security

- 1.5.1.** The security classification of this IFB is “NATO UNCLASSIFIED”.

- 1.5.2.** The selected Contractor will be required to handle and store classified material to the level of “NATO SECRET” and the Contractor shall have the appropriate facility and personnel clearances at the date of Contract Signature.
- 1.5.3.** Should the Contractor be unable to perform the Contract due to a lack of the proper facility/security clearances, this shall neither form the basis for a claim of adjustment or an extension of schedule nor can it be considered a mitigating circumstance in the case of an assessment of Liquidated Damages or a determination of Termination For Default by the Purchaser.
- 1.5.4.** The selected Contractor’s personnel working at NATO sites as well as the Contractor’s personnel at the Contractor’s facility directly working on this project, shall possess a security clearance of “NATO SECRET”.
- 1.5.5.** The Contractor personnel without such a clearance, confirmed by the appropriate national security authority and transmitted to the cognisant NATO security officer at least fourteen (14) days prior to the site visit, will be denied access to NATO site(s). Denial of such access by the Purchaser may not be used by the Contractor as the basis for a claim of adjustment or an extension of schedule nor can the denial of access be considered a mitigating circumstance in the case of an assessment of Liquidated Damages or a determination of Termination for Default by the Purchaser.
- 1.5.6.** Bidders are advised that Contract signature will not be delayed in order to allow the processing of security clearances for personnel or facilities and, should the otherwise successful Bidder not be in a position to accept the offered Contract within a reasonable period of time, due to the fact that its personnel or facilities do not possess the appropriate security clearance(s), the Purchaser may determine the Bidder’s Offer to be non-compliant and offer the Contract to the next ranking Bidder.
- 1.5.7.** All documentation, including the IFB itself, all applicable documents and any reference documents provided by the Purchaser are solely to be used for the purpose of preparing a response to this IFB. They are to be safeguarded at the appropriate level according to their classification. Any Reference Documents are provided “as is, without any warranty” as to quality or accuracy.

1.6. Bidders Conference

1.6.1. A Bidders Conference will not be held for this project.

1.7. Statement of Work Applicable Documents

1.7.1. Section 2 of the SOW lists all applicable documents bidders should be aware of and their contents and comply where applicable.

END OF SECTION 1

SECTION 2 GENERAL BIDDING INFORMATION

2.1. Definitions

2.1.1. In addition to the definitions and acronyms set in Clause 1 of Part II of the Prospective Contract and the definitions and acronyms set in the Clause 2 of the NCI Agency Contract General Provisions (Part III), the following terms and acronyms, as used in this IFB shall have the meanings specified below:

- 2.1.1.1. The term **“Assembly”** as used herein means an item forming a portion of equipment that can be provisioned and replaced as an entity and which normally incorporates replaceable parts or groups of parts.
- 2.1.1.2. **“Bid”** or **“Quotation”**: a binding offer to perform the work specified in the Prospective Contract (Book II).
- 2.1.1.3. **“Bidder”**: a firm, consortium, or joint venture which submits an offer in response to this solicitation. Bidders are at liberty to constitute themselves into any form of Contractual arrangements or legal entity they desire, bearing in mind that in consortium-type arrangements, a single judicial personality shall be established to represent that legal entity. A legal entity, such as an individual, Partnership or Corporation, herein referred to as the **“Principal Contractor”**, shall represent all members of the consortium with the NCI Agency and/or NATO. The **“Principal Contractor”** shall be vested with full power and authority to act on behalf of all members of the consortium within the prescribed powers stated in an irrevocable Power of Attorney issued to the **“Principal Contractor”** by all members associated with the consortium. Evidence of authority to act on behalf of the consortium by the **“Principal Contractor”** shall be enclosed and sent with the Bid. Failure to furnish proof of authority may be a reason for the Bid being declared non-compliant.
- 2.1.1.4. **“Compliance”**: strict conformity to the requirements and standards specified in this IFB.
- 2.1.1.5. **“Contractor”**: the awardee of this IFB, which shall be responsible for the fulfilment of the requirements established in the Contract.
- 2.1.1.6. **“Firm of a Participating Country”**: a firm legally constituted or chartered under the laws of, and geographically located in, or falling

under the jurisdiction of a Participating Country.

2.1.1.7. “**IFB**”: Invitation for Bid

2.1.1.8. “**Participating Country**”: any of the NATO nations contributing to the project, namely, (in alphabetical order): ALBANIA, BELGIUM, BULGARIA, CANADA, CROATIA, CZECH REPUBLIC, DENMARK, ESTONIA, FRANCE, GERMANY, GREECE, HUNGARY, ICELAND, ITALY, LATVIA, LITHUANIA, LUXEMBOURG, MONTENEGRO, THE NETHERLANDS, NORWAY, POLAND, PORTUGAL, ROMANIA, SLOVAKIA, SLOVENIA, SPAIN, TURKEY, THE UNITED KINGDOM, and THE UNITED STATES.

2.1.1.9. “**Purchaser**”: The Purchaser is defined as the NCI Agency or its legal successor.

2.2. Eligibility and Origin of Equipment and Services

2.2.1. As stated in paragraph 1.3.2, only firms from a Participating Country are eligible to engage in this competitive bidding process.

2.2.2. In addition, all Contractors, sub-Contractors and manufacturers, at any tier, must be from Participating Countries.

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

2.2.4. No materials or items of equipment down to and including identifiable Sub-assemblies shall be manufactured or assembled by a firm other than from and within a Participating Country.

2.2.5. Unless otherwise authorised by the terms of the Prospective Contract, the Intellectual Property Rights to all design documentation and related system operating software shall reside in NATO member countries, and no license fees or royalty charges shall be paid by the Contractor to firms, individuals or governments other than within the NATO member community.

2.2.6. Bidders are at liberty to constitute themselves into any form of contractual arrangements or legal entity they desire, bearing in mind that in consortium- type arrangements a single judicial personality shall be

established to represent that legal entity. A legal entity, such as an individual, Partnership or Corporation, herein referred to as the “Prime Contractor”, shall represent all members of the consortium with the NCI Agency and/or NATO. The “Prime Contractor” shall be vested with full power and authority to act on behalf of all members of the consortium, within the prescribed powers stated in an irrevocable Power of Attorney issued to the “Prime Contractor” by all members associated with the consortium. Evidence of authority to act on behalf of the consortium by the “Prime Contractor” shall be enclosed and sent with the Bid. Failure to furnish proof of authority shall be a reason for the Bid being declared non-compliant.

2.3. Bid Delivery and Bid Closing Date

2.3.1. All Bids shall be in the possession of the Purchaser at the email address given below in Paragraph 2.3.2 below before 12:00 hours (CENTRAL EUROPEAN TIME) on 10 July **2020** at which time and date submissions shall be closed.

2.3.2. Due to the COVID-19 restrictions imposed by some governments and organisations within the NATO alliance, Bidders are requested to submit their bid electronically to the following email address, which will generate an automatic confirmation of receipt.

IFB-CO-15049-BITI.Bids@ncia.nato.int

2.3.3. The Bid shall consist of three (3) separate subject emails:

- 2.3.3.1.** For the first e-mail the subject line shall read: “IFB-CO-15049-BITI – Official Bid for [company name] – Part 1 - Administrative Envelope”. The e-mail content shall be as described in Paragraph 3.4 below.
- 2.3.3.2.** For the second e-mail the subject line shall read: “IFB-CO-15049-BITI – Official Bid for [company name] – Part 2 - Price Proposal”. The e-mail content shall be as described in Paragraph 3.5 below.
- 2.3.3.3.** For the third e-mail the subject line shall read: “IFB-CO-15049-BITI – Official Bid for [company name] – Part 3 – Technical Proposal”. The e-mail content shall be as described in Paragraph 3.6 below. For large Technical Proposals, multiple e-mails may be required to submit the entire package. In such case, Bidders shall clearly indicate the correct order in the e-mail subject line.
- 2.3.4.** Bids which are delivered to the Purchaser after the specified time and date set forth above for Bid Closing are “Late Bids” and shall not be considered for award.
- 2.3.5.** It is the responsibility of the Bidder to ensure that the Bid submission is duly completed by the specified Bid Closing time and date. If a Bid received at the NCI Agency’s facility by electronic data interchange is unreadable to the degree that conformance to the essential requirements of the solicitation cannot be ascertained, the Purchaser will immediately notify the Bidder that the Bid will be rejected unless the Bidder provides clear and convincing evidence:

 - 2.3.5.1.** Of the content of the Bid as originally submitted; and,
 - 2.3.5.2.** That the unreadable condition of the Bid was caused by Purchaser software or hardware error, malfunction, or other Purchaser mishandling.

2.4. Late Bids

- 2.4.1.** Bids which are submitted to the Purchaser after the specified time and date set forth in paragraph 0 are "Late Bids" and shall not be considered for award. Such bids will be unopened unless the Purchaser can determine that the bid in question meets the criteria for consideration as specified below.

2.5. Consideration of Late Bid

2.5.1. Bids which are delivered to the Purchaser after the specified time and date set forth above for Bid Closing are "Late Bids" and shall not be considered for award. Such Bids will remain unopened unless the Purchaser can determine that the Bid in question meets the criteria for consideration as specified below.

2.5.2. *Consideration of Late Bid* – The Purchaser considers that it is the responsibility of the Bidder to ensure that the Bid submission arrives by the specified Bid Closing time. A late Bid shall only be considered for award under the following circumstances:

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

2.5.2.2. The Bid was sent to the email address specified in the IFB and the delay was solely the fault of the Purchaser.

2.6. Requests for Extension of Bid Closing Date

2.6.1. The Purchaser does not accept, except in exceptional cases, Bidder requests to extend the Bid Closing Date. In any event, all questions and requests for extension of bid closing date must be submitted in writing to the Point of Contact indicated in paragraph 2.7.1 below **only** through the delegation of the country of origin of the firm which has been invited to bid or by that country's Embassy **no later than fourteen (14) calendar days** prior to the established bid closing date. Bidders are advised to submit their request in sufficient time as to allow their respective NATO Delegation or Embassy to deliver the formal request to the Purchaser within this time limit.

2.6.2. Bidders should note that per paragraph 9.2 of the Alliance Operations and Missions NSIP Procurement Regulations, only in exceptional cases may the Purchaser consider a request for an extension of the Bid Closing Date. Extensions to the Bid Closing Date are at the sole discretion of the Purchaser

2.7. Purchaser's Point of Contact

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

NATO Communications and Information Agency
Acquisition Directorate
Boulevard Léopold III
1110 Brussels, Belgium

Mr. Graham Hindle, Senior Contracting Officer

Bid Delivery:

IFB-CO-15049-BITI.Bids@ncia.nato.int

Questions/Clarifications:

IFB-CO-15049-BITI.Communication@ncia.nato.int

Bid Guarantee:

TreasuryVendorBank.Finance@ncia.nato.int

2.7.2. All correspondence related to the IFB shall be sent to the contact details in paragraph 0 above.

2.8. Request for IFB Clarifications

2.8.1. Bidders, at the earliest stage possible during the the solicitation period, are encouraged to seek clarification of any matters of an administrative or contractual, price, or technical in nature pertaining to this IFB.

2.8.2. All questions and requests for clarification shall be submitted via email (no phone calls) to the point of contact identified in paragraph 0 using the Clarification Request Form provided at ANNEX C of this Book 1.

2.8.3. Such questions and requests for clarification shall be submitted not later than seventeen (17) calendar days prior to the stated "Bid Closing Date". The Purchaser is under no obligation to answer questions submitted after this time. Requests for clarification must address the totality of the concerns of the Bidder, as the Bidder will not be permitted to revisit areas of the IFB for additional clarification except as noted in paragraph 0 below.

- 2.8.4.** Additional requests for clarification are limited only to the information provided as answers by the Purchaser to Bidder's requests for clarification. Such additional requests shall arrive not later than seventeen (17) calendar days before the established bid closing date.
- 2.8.5.** Bidders are advised that additional request for clarifications shall be answered on a discretionary basis.
- 2.8.6.** It is the responsibility of the Bidders to ensure that all Clarification Requests submitted bear no mark, logo or any other form or sign that may lead to reveal the Bidders' identity in the language constituting the clarification itself. This prescription is not applicable to the mode used for the transmission of the clarification.
- 2.8.7.** The Purchaser declines all responsibilities associated to any and all circumstances regardless of the nature or subject matter arising from the Bidders' failure or inability to abide to the prescription in paragraph 0 above.
- 2.8.8.** Except as provided above, all questions will be answered by the Purchaser and the questions and answers (but not the identity of the questioner) will be issued in writing (via email) to all Prospective Bidders. The Bidders shall immediately inform the Purchaser in the event that submitted questions are not reflected in the answers published.
- 2.8.9.** Where the extent of the changes implied by the response to a clarification request is of such a magnitude that the Purchaser deems necessary to issue revised documentation, the Purchaser will do so by the means of the issuance of a formal IFB amendment in accordance with paragraph 00.
- 2.8.10.** The Purchaser reserves the right to reject clarification requests clearly devised or submitted for the purpose of artificially obtaining an extension of the bidding time (i.e. clarifications re-submitted using different wording where such wording does not change the essence of the clarification being requested).
- 2.8.11.** The published responses issued by the Purchaser shall be regarded as the authoritative interpretation of the IFB. Any amendment to the language of the IFB included in the answers will be issued as an IFB Amendment and shall be incorporated by the Bidder in its offer.

2.9. Requests for Waivers and Deviations

- 2.9.1.** Bidders are informed that requests for alteration to, waivers, or deviations from the terms and conditions of this IFB will not be considered after the request for clarification process. Requests for alterations to the other requirements, terms or conditions of the IFB may only be considered as part of the clarification process set forth in paragraph 2.8.
- 2.9.2.** Requests for alterations to the specifications, terms and conditions of the Contract which are included in a bid as submitted may be regarded by the Purchaser as a qualification or condition of the bid and may be grounds for a determination of non-compliance.

2.10. Amendment of the Invitation for Bid

- 2.10.1.** The Purchaser may revise, amend or correct the terms, conditions and specifications and provisions of the IFB at any time prior to the Bid Closing Date. Any and all modifications will be transmitted to all Bidders by an official amendment designated as such and signed by the Contracting Authority. Such amendment will be accompanied by an acknowledgement of receipt which the Bidder shall complete and enclose as part of its submitted bid. This process may be part of the clarification procedures set forth in paragraph 2.8 or may be an independent action on the part of the Purchaser.
- 2.10.2.** All revisions or amendments issued by the Purchaser shall also be acknowledged by the Bidder in its bid by completing the "Acknowledgement of Receipt of IFB Amendments" at B.2 of this Book I. Failure to acknowledge receipt of all amendments may be grounds to determine the bid non-compliant.
- 2.10.3.** The Purchaser will consider the potential impact of amendments on the ability of Prospective Bidders to prepare a proper bid within the allotted time. The Purchaser may extend the "Bid Closing Date" at its discretion and such extension will be set forth in the amendment document.

2.11. Cancellation of Invitation for Bid

- 2.11.1.** The Purchaser may cancel, suspend or withdraw for re-issue at a later date this IFB at any time prior to Contract award. No legal liability on the

part of the Purchaser for payment of any sort shall arise and in no event will any Bidder have cause for action against the Purchaser for the recovery of costs incurred in connection with preparation and submission of a bid in response to this IFB.

2.12. Modification and Withdrawal of Bids

2.12.1. Bids, once submitted, may be modified by Bidders, but only to the extent that the modifications are in writing, conform to the requirements of the IFB, and are received by the Purchaser prior to the exact time and date established for bid closing. Such modifications shall be considered as an integral part of the submitted bid.

2.12.2. Modifications to bids which arrive after the bid closing date will be considered as "Late Modifications" and will be processed in accordance with the procedure set forth in paragraph 2.4 concerning "Late Bids". Except that unlike a "Late Bid", the Purchaser will retain the modification until a selection is made. A modification to a bid which is determined to be late will not be considered in the evaluation and selection process. If the Bidder submitting the modification is determined to be the successful Bidder on the basis of the unmodified bid, the modification may then be opened. If the modification makes the terms of the bid more favourable to the Purchaser, the modified bid may be used as the basis of Contract award. The Purchaser, however, reserves the right to award a Contract to the apparent successful Bidder on the basis of the bid submitted and disregard the late modification.

2.12.3. A Bidder may withdraw its bid at any time prior to bid opening without penalty. In order to do so, an authorised agent or employee of the Bidder must provide an original statement of the firm's decision to withdraw the bid.

2.13. Bid Validity

2.13.1. Bidders shall be bound by the term of their bids for a period of twelve (12) months starting from the bid closing date specified in paragraph 2.3.1.

2.13.2. In order to comply with this requirement, the Bidder shall complete the Certificate of Bid Validity set forth in B.4. Bids offering less than this period of time, may be determined non-compliant.

- 2.13.3.** The Purchaser will endeavour to complete the evaluation and make an award within the bid validity period. However, should that period of time prove insufficient to render an award, the Purchaser reserves the right to request an extension of the bid validity period all bids which remain under consideration for award.
- 2.13.4.** Upon notification by the Purchaser of such a request for a time extension, the Bidders shall have the right to:
- 2.13.4.1.** accept this extension of time in which case Bidders shall be bound by the terms of their offer for the extended period of time and the bid guarantee and Certificate of Bid Validity extended accordingly; or
 - 2.13.4.2.** refuse this extension of time and withdraw the bid without penalty.
- 2.13.5.** Bidders shall not have the right to modify their bids due to a Purchaser request for extension of the bid validity unless expressly stated in such request.
- 2.14. Bid Guarantee**
- 2.14.1.** The Bid Guarantee shall be submitted by email to the Purchaser either directly by a banking institution or from the Bidder to the email address specified in paragraph 2.7.1. In either case, the Bidder shall provide an additional copy of the Bid Guarantee in the Bid Administration Volume.
- 2.14.2.** An original paper copy of the Bid Guarantee shall be submitted to the Purchaser by post/courier to the following address:

NCI Agency
Financial Management Office
Treasury
NATO HQ
Boulevard Léopold III
B-1110, Brussels
Belgium

- 2.14.3.** The Bidder shall furnish with his Bid a guarantee in an amount equal to three Hundred Thousand Euro (€300,000). The Bid Guarantee shall be substantially similar to ANNEX D as an irrevocable, unqualified and unconditional Standby Letter of Credit (SLC) issued by a Belgian banking institution fully governed by Belgian legislation or issued by a non-Belgian financial institution and confirmed by a Belgian banking institution fully governed by Belgian legislation. In the latter case signed original letters from both the issuing institution and the confirming institution must be provided. The confirming Belgian bank shall clearly state that it will guarantee the funds, the drawing against can be made by the NCI Agency at its premises in Belgium. Bid Guarantees shall be made payable to the Treasurer, NCI Agency.
- 2.14.4.** "**Standby Letter of Credit**" or "SLC" as used herein, means a written commitment by a Belgian financial institution either on its own behalf or as a confirmation of the Standby Letter of Credit issued by a non-Belgian bank to pay all or part of a stated amount of money, until the expiration date of the letter, upon presentation by the Purchaser of a written demand therefore. Neither the financial institution nor the Contractor can revoke or condition the Standby Letter of Credit. The term "Belgian financial institution" includes non-Belgian financial institutions licensed to operate in Belgium.
- 2.14.5.** Alternatively, a Bidder may elect to post the required Guarantee by certified cheque. If the latter method is selected, Bidders are informed that the Purchaser will cash the cheque on the Bid Closing Date or as soon as possible thereafter.
- 2.14.6.** If the Bid Closing Date is extended after a Bidder's financial institution has issued a Bid Guarantee, it is the obligation of the Bidder to have such Bid Guarantee (and confirmation, as applicable) extended to reflect the revised Bid Validity date occasioned by such extension.

- 2.14.7.** Failure to furnish the required Bid Guarantee in the proper amount, and/or in the proper form and/or for the appropriate duration by the Bid Closing Date may be cause for the Bid to be determined non-compliant.
- 2.14.8.** The Purchaser will make withdrawals against the amount stipulated in the Bid Guarantee under the following conditions:
- 2.14.8.1.** The Bidder has submitted a Bid and, after Bid Closing Date (including extensions thereto) and prior to the selection of the successful bid, withdraws his Bid, or states that he does not consider his Bid valid or agree to be bound by his Bid, or
 - 2.14.8.2.** The Bidder has submitted a successful Bid, but the Bidder declines to sign the Contract offered by the Agency, such Contract being consistent with the terms of the solicitation documents.
 - 2.14.8.3.** The Purchaser has offered the Bidder the Contract for execution but the Bidder has been unable to demonstrate compliance with the security requirements of the Contract at the date of contract signature,
 - 2.14.8.4.** The Purchaser has entered into the Contract with the Bidder but the Bidder has been unable or unwilling to provide the Performance Guarantee required under the terms of the Contract within the time frame required.
- 2.14.9.** Bid Guarantees will be returned to Bidders as follows:

- 2.14.9.1. To non-compliant Bidders forty-five (45) days after notification by the Purchaser of a non-compliant Bid (except where such determination is challenged by the Bidder; in which case the Bid Guarantee will be returned forty-five (45) days after a final determination of non-compliance);
- 2.14.9.2. To all other unsuccessful Bidders within thirty (30) days following the award of the Contract to the successful Bidder;
- 2.14.9.3. To the successful Bidder upon submission of the Performance Guarantee required by the Contract or, if there is no requirement for such a Performance Guarantee, upon Contract execution by both parties.
- 2.14.9.4. pursuant to paragraph **Error! Reference source not found.**

2.15. Electronic Transmission of Information and Data

- 2.15.1. The Purchaser will endeavour to communicate answers to requests for clarification and amendments to this IFB to the Prospective Bidders as soon as practicable.
- 2.15.2. Bidders are cautioned that the Purchaser will rely exclusively on this email address IFB-CO-15049-BITI.Communication@ncia.nato.int to manage all correspondence related to this IFB, including IFB amendments and clarifications.
- 2.15.3. Bidders are cautioned that electronic transmission of documentation which contains classified information is not permissible.

2.16. Supplemental Agreements and Export Controlled Information

- 2.16.1. Bidders are required, in accordance with the certificate at B.7 of this Book I, to disclose any prospective Supplemental Agreements that are required by national governments to be executed by NATO/NCI Agency as a condition of Contract performance.
- 2.16.2. Supplemental Agreements are typically associated with, but not necessarily limited to, national export control regulations, technology transfer restrictions and end user agreements.

- 2.16.3.** Bidders are cautioned that failure to provide full disclosure of the anticipated requirements and the terms thereof, to the best of the Bidder's knowledge and experience, may result in the Purchaser withholding award of the Contract or terminating an executed Contract if it is discovered that the terms of such Supplemental Agreements contradict the terms of the Contract, to the extent that either key objectives cannot be accomplished or basic Contract principles and Purchaser rights have been abridged.
- 2.17. Notice of Limitations on Use of Intellectual Property Delivered to the Purchaser**
- 2.17.1.** Bidders are instructed to review Clause 18 of the Contract Special Provisions and Clause 30 of the Contract General Provisions. These Clauses set forth the definitions, terms and conditions regarding the rights of the Parties concerning Intellectual Property (IP) developed and/or delivered under this Contract or used as a basis of development under this Contract.
- 2.17.2.** All Contract deliverables are governed by a distinct set of Intellectual Property Rights (IPR) and Title and Ownership provisions, detailed in Book II, Prospective Contract.
- 2.17.3.** All Contract deliverables are governed by a distinct set of Intellectual Property Rights (IPR) and Title and Ownership provisions, detailed in Book II, Prospective Contract.
- 2.17.4.** Bidders are required to disclose, in accordance with Annexes B.9, B.10, and B.11 of this Book I, the IP proposed to be used by the Bidder that will be delivered with either Background Intellectual Property Rights (IPR) or Third Party IPR. Bidders are required to identify such IP and the basis on which the claim of Background or Third Party IP is made.
- 2.17.5.** The identification of Bidders' Background and/or Third Party IP shall be limited to those IPs associated with products and/or documentation which is indispensable in order to deliver, install and operate, support, maintain the system and to provide training and which are not related to products and/or documentation needed for internal processes only.
- 2.17.6.** Bidders are further required to identify any restrictions on Purchaser use of the IP that is not in accordance with the definitions and rights set forth

in the provisions of the Book II's Prospective Contract concerning use or dissemination of such IP.

2.17.7. Bidders are informed that any restriction on use or dissemination of IP conflicting with the terms and conditions of Book II or with the objectives and purposes of the Purchaser as stated in the Prospective Contract shall render the bid non-compliant.

2.18. Mandatory Quality Assurance and Quality Control Standards

2.18.1. Bidders are requested to note that, in accordance with the Certificate at Annex B.16 to this Book I – Bidding Instructions, Bidders shall provide documentary evidence that the Bidder possesses a current certification compliant with the requirements of Allied Quality Assurance Publication 2110, ISO 9001:2015 or an equivalent QA/QC regime.

2.18.2. Bidders shall further demonstrate that such regime is applied within the Bidder's internal organisation as well as extended to its relationships with sub-contractors.

2.18.3. If the Bidder is offering a QA/QC regime that is claimed to be equivalent to AQAP 2110 or ISO 9001:2015, the burden of proof of such equivalency shall be on the Bidder and such evidence of equivalency shall be submitted with the Certificate at Annex B.16 in the Bid Administration Package.

2.18.4. Failure to execute this certificate or to provide documentary evidence of compliance with this requirement may result in a determination of non-compliance of the submitted bid.

END OF SECTION 2

SECTION 3 BID PREPARATION INSTRUCTIONS

3.1. General

- 3.1.1. Bids shall be prepared and submitted in accordance with the instructions set forth herein. Failure to comply with these instructions may result in the Bid being declared non-compliant by Purchaser and eliminated from further consideration.
- 3.1.2. Bidders shall prepare a complete Bid which comprehensively addresses all requirements stated herein. The Bid shall demonstrate the Bidder's understanding of the IFB and its ability to provide all the deliverables and services listed in the Schedule of Supplies and Services in a timely manner.
- 3.1.3. The Bidder shall not restate the IFB requirements in confirmatory terms only. The Bidder must clearly describe what is being offered and how the Bidder will meet all IFB requirements. Statements in confirmatory terms only will be sufficient grounds for determining the bid to be non-compliant.
- 3.1.4. Although the Purchaser may request clarification of the bid, it is not required to do so and may make its determination on the content of the bid as written. Therefore, Bidders shall assume that inconsistencies, omissions, errors, lack of detail and other qualitative deficiencies in the submitted bid will have a negative impact on the final rating.
- 3.1.5. Partial bids and bids containing conditional statements will be declared non-compliant.
- 3.1.6. Bidders are advised that the Purchaser reserves the right to incorporate the successful Bidder's Offer in whole or in part by reference in the resulting Contract.
- 3.1.7. The specific format for each volume is stated in paragraph 3.3.
- 3.1.8. All documentation submitted as part of the bid shall be classified at a level not higher than "NATO RESTRICTED".

3.2. Language Of Bid

- 3.2.1.** All notices and communications regarding this IFB shall be written and conducted in English.
- 3.2.2.** All bids shall be submitted in English.

3.3. Bid Package Content

- 3.3.1.** The complete bid shall consist of three distinct and separated volumes described in the following subparagraphs. Detailed requirements for the structure and content of each of these packages are contained in these bidding instructions.
- 3.3.1.1.** Volume 1: Bid Administration (paragraph 3.4)
 - 3.3.1.2.** Volume 2: Price Proposal (paragraph 0)
 - 3.3.1.3.** Volume 3: Technical Proposal (paragraph 3.6)
- 3.3.2.** The proposal shall be sent via three separate e-mails to the Bid Delivery email address specified in section 2.6.2. The e-mails shall have the following subject lines:
- For the first e-mail the subject line shall read: “IFB-CO-15049-BITI – Official Bid for [company name] – Volume 1 - Administrative Envelope”.
 - For the second e-mail the subject line shall read: “IFB-CO-15049-BITI – Official Bid for [company name] – Volume 2 - Price Proposal”.
 - For the third e-mail the subject line shall read: “IFB-CO-15049-BITI – Official Bid for [company name] – Volume 3 – Technical Proposal”.
- 3.3.3.** The Bid Guarantee shall be sent by email to the email address specified in section 2.7. This email should clearly reference the company name and IFB number.
- 3.3.4.** Detailed requirements for the structure and content of each of these volumes are contained in these Bidding Instructions.

3.4. Part 1: Bid Administration E-mail

- 3.4.1.** Quantity: one (1) file in pdf format containing all the documents specified in paragraph 0 and one copy of the Bid Guarantee submitted by email as mentioned in paragraph 3.4.3.17. Additionally, a copy of the Bid Guarantee shall be included in this volume.
- 3.4.2. No information disclosing or contributing to disclose the Bid Price shall be made part of the Bid Administration E-mail. Failure to abide to this prescription shall result in the bid being declared non-compliant.**
- 3.4.3.** The Bid Administration E-mail shall include the following Certificates, signed in the original by an authorised representative of the Bidder:
- 3.4.3.1.** B.1 Certificate of Legal Name of Bidder
 - 3.4.3.2.** B.2: Acknowledgement of Receipt of IFB Amendments
 - 3.4.3.3.** B.3: Certificate of Independent Determination
 - 3.4.3.4.** B.4: Certificate of Bid Validity
 - 3.4.3.5.** B.5: Certificate of Exclusion of Taxes, Duties, and Charges
 - 3.4.3.6.** B.6: Comprehension and Acceptance of Contract Special and General Provisions
 - 3.4.3.7.** B.7: Disclosure of requirements for NCI Agency Execution of Supplemental Agreements (as applicable)
 - 3.4.3.8.** B.8: List of Prospective Subcontractors
 - 3.4.3.9.** B.9: Bidder Background IPR
 - 3.4.3.10.** B.10: List of Subcontractor IPR
 - 3.4.3.11.** B.11: List of Third Party IPR
 - 3.4.3.12.** B.12: Certificate of Origin of Equipment, Services, and Intellectual Property
 - 3.4.3.13.** B.13: List of Proposed Key Personnel
 - 3.4.3.14.** B.14: Disclosure of Involvement of Former NCI Agency Employment
 - 3.4.3.15.** B.15: Information only. Not required to be submitted.
 - 3.4.3.16.** B.16: Certificate of AQAP 2110 or ISO 9001:2015 Compliance or Equivalent
 - 3.4.3.17.** ANNEX D: Bid Guarantee-Standby Letter of Credit. Bidders are reminded that the Bid Guarantee shall reflect any extensions to the Bid Validity Date due to extensions in the Bid Closing Date.

Further, the Bid Guarantee shall be sent by email to the email address specified in paragraph 2.7.1. This email should clearly reference the

company name and IFB reference no.

3.4.4. Concerning Certificate B.7, Disclosure of Requirements for NCI Agency Execution of Supplemental Agreements, Bidders shall note especially the following:

3.4.4.1 If supplemental agreements, such as End-User Certificates or Technical Assistance Agreements, are required by national regulations, these must be submitted with the Bidders Bid. Supplemental agreements submitted after the Bid Closing Date shall not be considered.

3.4.4.2 The terms of supplemental agreements, if necessary, are the Bidders / Contractors responsibility and shall be totally consistent with the terms of the (Prospective) Contract, and shall not duplicate, negate, or further interpret any provisions of this Contract. The terms of the (Prospective) Contract shall take precedence over the Supplemental Agreement.

3.4.4.3 A problem with the supplemental agreement in any of the areas mentioned previously in this provision may result in a determination that the Bid is not compliant with the terms of the IFB, and in rejection of the Bid, or termination for default of the Contract if the supplemental agreement is submitted after Contract award.

3.2.5 Concerning Certificate B.8, the Contractor shall identify by name, project role, and country of origin, all sub-contractors whose sub-contract value is expected to equal or exceed EUR 125,000, if any. A list of consortium members shall also be completed and included. If there are no sub- contractors/consortium members involved, the Bidder shall state this separately. **The subcontractors listed in this certificate shall be traceable in the Bidding Sheets.**

3.5. Part 2: Price Proposal E-mail

3.5.1. Quantity: one (1) electronic MS Excel format file “2_IFB-CO-15049-BITI_Book I-Annex A Bidding Sheets.xlsx” issued as part of this IFB, duly filled and which can be manipulated (i.e. not an image) and be the full and complete Price Quotation.

3.5.2. General Rules

3.5.2.1. Section 0. (Instructions for the preparation of Bidding Sheets) to the present Book I illustrates the price bid requirements associated with the completion of the Bidding Sheets. All prescriptions illustrated therein are

to be regarded as mandatory. Failure to abide to these prescriptions may lead to the bid being declared non-compliant.

- 3.5.2.2.** Bidders shall prepare their Price Quotation by completing the Bidding Sheets referenced in paragraph 3.5.1, in accordance with the instructions specified in Book I Section 0. Such documentation constitutes an integral part of this IFB and prescriptions contained therein shall be referred to for the purpose of the evaluation set forth in paragraph 4.4.
- 3.5.2.3.** The structure of the Bidding Sheets shall not be changed (other than as indicated elsewhere) nor should any quantity or item description in the Bidding Sheets. The currency(ies) of each Contract Line Item and sub-item shall be shown. The prices provided shall be intended as the comprehensive total price offered for the fulfilment of all requirements as expressed in the IFB documentation to include those expressed in the SOW.
- 3.5.2.4.** When completing the Bidding Sheets, the Bidder shall insert information in all yellow cells of the Bidding Sheets “CLIN Summary” and complete the “Offer Summary” as instructed. A price for each specified element needs to be supplied on each CLIN. Prices should not be grouped. The prices and quantities entered on the document shall reflect the total items required to meet the Contractual requirements.
- 3.5.2.5.** The total price shall be indicated in the appropriate columns and in the currency quoted. If the price of a line item is expressed in different currencies, these shall be identified, and there shall be as many totals on that line item as there are currencies. In preparing the Price Quotation, Bidders shall ensure that the prices of the Sub-items total the price of the major item of which they constitute a part.
- 3.5.2.6.** Bidders shall **furnish Firm Fixed Prices** in accordance with the format set forth in the instructions for preparation of the Bidding Sheets; and
- 3.5.2.7.** Offered prices shall not be “conditional” in nature. Any comments supplied in the Bidding Sheets or in any part of the bid package which are conditional in nature, relative to the offered prices may result in a determination that the bid is non-compliant.
- 3.5.2.8.** Bidders are responsible for the accuracy of their Price Quotations. Price Quotations that have apparent computational errors may have such

errors resolved in the Purchaser's favour or, in the case of gross omissions, inconsistencies or errors, may be determined to be non-compliant.

- 3.5.2.9.** Bidders shall quote in their own national currency or in EURO. Bidders may also submit bids in multiple currencies including other NATO member states' currencies under the following conditions:
- 3.5.2.9.1.** the currency is of a "participating country" in the project, **and**
- 3.5.2.9.2.** the Bidder can demonstrate, either through sub-Contract arrangements or in its proposed work methodology, that it will have equivalent expenses in that currency. All major subcontracts and their approximate anticipated value should be listed on a separate sheet and included with the Price Quotation.
- 3.5.2.10.** Bidders are informed that the Purchaser is exempt from all direct taxes (including VAT), and all customs duties on merchandise imported or exported based on Article IX and X of the Ottawa Agreement on the status of the North Atlantic Treaty Organization, National Representative and International Staff.
- 3.5.2.10.1.** Bidders shall therefore **exclude** from their price bid all taxes, duties and customs charges from which the Purchaser is exempted by international agreement and are required to certify that they have done so through execution of the Certificate at Annex B.5.
- 3.5.2.11.** Unless otherwise specified in the instructions for the preparation of Bidding Sheets in **Error! Reference source not found.**, all prices quoted in the proposal shall be on the basis that all deliverable items shall be delivered "Delivery Duty Paid (DDP)" in accordance with the International Chamber of Commerce INCOTERMS® 2010.
- 3.5.2.12.** All prices bid shall be clearly traceable in the detailed Bidding Sheets.
- 3.5.2.13.** Any adjustment or discount to prices should be clearly traceable to the lowest level of breakdown in the Bidding Sheets and should not be aggregated or summed. Any lack of clarity or traceability may render the bid non-compliant.
- 3.5.2.14.** The Bidder's attention is directed to the fact that Price Quotation shall contain no document and/or information other than the priced copies of

the Bidding Sheets. Any other document will not be considered for evaluation.

3.6. Part 3: Technical Proposal Package

3.6.1. Quantity: One Zip file submitted by email, containing files listed in Section **Error! Reference source not found..**

3.6.2. The Technical Volume is comprised of three (3) parts. Each of the parts shall be self-contained as a separate electronic file, named as described below.

3.6.2.1. Part 1: Management Proposal, as described in paragraph 3.6.6.1.4.

3.6.2.2. Part 2: Engineering Proposal, as described in paragraph 3.6.6.1.5.

3.6.2.3. Part 3: Supportability Proposal, as described in paragraph 3.6.6.1.6.

3.6.3. No information disclosing or contributing to disclose the Bid Price shall be made part of the Technical Proposal Package. Failure to abide to this prescription shall result in the bid being declared non-compliant.

3.6.4. It is of utmost importance that Bidders respond to all of the technical requirements contained in the IFB Statement of Work (including all Annexes) and all the bidding instructions, not only with an affirmation of compliance but also with an explanation of how each requirement will be met. A simple copy / paste of the requirements from the IFB into a proposal will not be constitute sufficient grounds of compliance and may lead to a determination of non-compliance.

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

3.6.6. TECHNICAL PROPOSAL PACKAGE CONTENT:

3.6.6.1. The Technical Proposal shall include:

3.6.6.1.1. Table of Contents: which lists not only the section headings but also the major sub-sections, and topic headings required set forth in these instructions or implicit in the organization of the Technical Proposal.

- 3.6.6.1.2. Cross Reference - Traceability Matrix:** Following the Table of Contents, the Bidder shall include a completed Technical Proposal Cross Reference - Traceability Matrix. The Bidder shall confirm that it accepts and will perform the requirements described in the Statement of Work, if awarded the Contract, by completing and submitting the Cross Reference - Traceability Matrix as detailed in ANNEX F. The Bidder shall complete Column four (4) (Bid Reference) of the Table, citing the appropriate section of the Technical Proposal that corresponds to each paragraph of these Instructions for the Preparation of the Technical Proposal that describes how the respective requirements will be met. The completed Table serves as an index for the Purchaser's Technical Evaluation and also as an aide-memoire to the Bidder to ensure that all the required information has been provided in the Technical Proposal.
- 3.6.6.1.3. Executive summary:** Bidders shall provide an overview of the salient features of their technical proposal in the form of an executive summary. The Executive Summary is not mandatory and shall not be evaluated. This summary (if included) shall not exceed 1 page.
- 3.6.6.1.4. MANAGEMENT PROPOSAL** (60-page limit excluding Table of Content)
- 3.6.6.1.4.1.** All areas of the management proposal shall comprehensively demonstrate feasibility and reasonableness of the proposed approach.
- 3.6.6.1.4.2.** The Management Proposal shall include:
- 3.6.6.1.4.3. Table of Contents**
- 3.6.6.1.4.3.1.** Bidders shall compile a detailed Table of Contents which lists not only the section headings but also the major sub-sections, and topic headings required set forth in these instructions or implicit in the organization of the Management Proposal.
- 3.6.6.1.4.4. Draft Project Management Plan (PMP) (30 page limit)**
- 3.6.6.1.4.4.1.** The Bidder shall provide a draft PMP in accordance with Book II, Part IV, Statement of Work Section 4, to include all management

including Quality Assurance (Section 7) aspects of the project such as the Contractor's team's project management structure and project management methodology, control processes and tools/environments, and external dependencies, assumptions and relationship with the Purchaser necessary to provide the capability as required by this Contract.

Bidder Qualifications (30-page limit)

- 3.6.6.1.4.4.2.** The Bidder shall demonstrate relevant corporate experience in at least two (2) recent contracts within the last five (5) years for which the Bidder has delivered the same (Scope, Budget and Timeline) as or substantially similar to the proposed effort, with at least one intelligence or military or law enforcement customer. The Bidder shall provide a description of the necessary experiences to support the Project and System Lifecycle of the referenced project(s), thus proving in a measurable way the similarity with the proposed Balkans IT refresh.
- 3.6.6.1.4.4.3.** For each referenced previous project(s) above, the Bidder shall provide a description of the solution deployed/delivered and migration strategy, highlighting similarities to the proposed solution; the purchaser(s) of these system(s); the user(s) of these system(s); the Contract number(s); the start date and end date of the Contract; a point of contact for verification purposes.
- 3.6.6.1.4.4.4.** For each of the proposed key personnel, the Bidder shall provide the CV of each individual in accordance with the format in Bidding Instructions ANNEX E, clearly demonstrating their education and experience as required in Book II, Part IV, Statement of Work, Annex C.
- 3.6.6.1.4.4.5.** For each of the proposed key personnel, the Bidder shall provide an attestation of security clearance of each individual at NATO SECRET level valid for a minimum of one year after the bid closing date.
- 3.6.6.1.5. SYSTEM ENGINEERING PROPOSAL** (90-page limit excluding Table of Content and Requirements Traceability Matrix)

- 3.6.6.1.5.1.** All areas of the engineering proposal shall comprehensively demonstrate feasibility and reasonableness of the proposed solution.
- 3.6.6.1.5.2.** The Engineering Proposal shall include:
- 3.6.6.1.5.3. Table of Contents**
- 3.6.6.1.5.3.1.** Bidders shall compile a detailed Table of Contents which lists not only the section headings but also the major sub-sections, and topic headings required set forth in these instructions or implicit in the organization of the Engineering Proposal.
- 3.6.6.1.5.4. System Design Specification (SDS)**
- 3.6.6.1.5.4.1.** The Bidder shall provide support to develop an SDS in accordance with the requirements for an SDS as specified in the Book II, Part IV, Statement of Work, paragraph 4.2.
- 3.6.6.1.5.4.2.** The Bidder shall provide confirmation of support on development of the SDS and a description of the collaboration plan.
- 3.6.6.1.5.5. Requirements Traceability Matrix (RTM) (no page limit)**
- 3.6.6.1.5.5.1.** The Bidder shall provide a Requirement Traceability Matrix (RTM) in accordance with SOW clearly identifying how it aims to fulfil each requirement.
- 3.6.6.1.5.5.2.** The RTM shall relate all SRS requirements to the system elements. The RTM with no-page limit shall be provided in the form of the attached excel file duly filled up: 2_IFB-CO-15049-BITI_Book I-Requirements Traceability Matrix.xls
- 3.6.6.1.5.5.3.** The Bidder shall provide a description for each type of equipment or software in the SRS (ANNEX A Hardware and Software REQUIREMENTS) matching the SRS table format for each specific item.
- 3.6.6.1.5.5.4.** This RTM shall demonstrate a mature solution which enable to achieve system implementation within the requested milestones in Book II, Part IV, Statement of Work. .
- 3.6.6.1.5.6. Testing (10-page limit)**

3.6.6.1.5.6.1. The Bidder shall provide a draft Test Plan which clearly addresses the objectives stated in Book II, Part IV, Statement of Work.

3.6.6.1.6. SUPPORTABILITY PROPOSAL (50-page limit excluding Table of Content)

3.6.6.1.6.1. All areas of the Supportability proposal shall comprehensively demonstrate feasibility and reasonableness of the proposed solution.

3.6.6.1.6.2. The Supportability Proposal shall include

3.6.6.1.6.3. Table of Contents

3.6.6.1.6.3.1. Bidders shall compile a detailed Table of Contents which lists not only the section headings but also the major sub-sections, and topic headings required set forth in these instructions or implicit in the organization of the Supportability Proposal.

3.6.6.1.6.4. Draft Integrated Logistic Support Plan (ILSP) (50-page limit)

3.6.6.1.6.4.1. The Bidder shall provide an Integrated Logistic Support Plan (ILSP) as described in Book II, Part IV, Statement of Work Section 5, demonstrating the Bidder’s capabilities in supporting the implementation of the future capability.

3.6.6.1.6.4.2. As part of the ILSP the Bidder shall provide a Configuration Management Plan (CMP) as described in Book II, Part IV, Statement of Work Section 8, demonstrating the Bidder’s capabilities to meet the configuration management requirements of the future capability.

3.7. Bidder’s Check-List

3.7.1. The tables below provide an overview of all items to be delivered by the Bidder as part of this bid. Bidders are invited to use these tables to verify the completeness of their proposal.

Part 1: Bid Administration Package

	Item	Format	Page Limit
1	B.1: Certificate of Legal Name of Bidder	PDF	No larger than 20
2	B.2: Acknowledgment of Receipt of IFB Amendments		

3	B.3: Certificate of Independent Determination		MB -No-page Limit
4	B.4: Certificate of Bid Validity		
5	B.5: Certificate of Exclusion of Taxes, Duties, and Charges		
6	B.6: Comprehension and Acceptance of Contract Special and General Provisions		
7	B.7: Disclosure of Requirements for the NCI Agency Execution of Supplemental Agreements		
8	B.8: List of Prospective Sub-Contractors		
9	B.9: Bidder Background IPR		
10	B.10: List of Sub-Contractor IPR		
11	B.11: List of Third Party IPR		
12	B.12: Certificate of Origin of Equipment, Services, and Intellectual Property		
13	B.13: List of Proposed Key Personnel		
14	B.14: Disclosure of Involvement of Former NCI Agency Employment		
15	B.15: Information only. Not required to be submitted		
16	B.16: Certificate of AQAP 2110 or ISO 9001:2008 Compliance or Equivalent		
17	Bid Guarantee		

Volume 2: Price Proposal

	Item	Format	Page Limit
1			
2	Completed Set of Sheets contained in 2_IFB-CO-15049-BITI Book I Annex A-Bidding Sheets.xlsx	shall be in MS Excel format which can be manipulated (i.e. not an image) and be the full and complete Price Quotation	No larger than 20 MB - No-page Limit
3	Offer Summary tab from the Bidding Sheets file	One (1) PDF copy of just the Offer Summary tab from the Bidding Sheets	

Volume 3: Technical Proposal E-mail

	Item	Format	Page Limit
1	Executive Summary		1-page limit

2	Table of Contents		No-page limit
3	Cross Reference - Traceability Matrix (1 PDF file)		No-page limit
5	Management Proposal		47-page limit
	a. Table of Contents (No-page limit)		
	b. Draft Project Management Plan (PMP) (30-page limit)		
	c. Bidder Qualifications (17-page limit)		
4	Engineering Proposal		90-page limit
	a. Table of Contents (No page limit)		
	b. System Design Specification (SDS)		
	c. Requirements Traceability Matrix (RTM) (no page limit)		
	d. Testing (10-page limit)		
6	Supportability Proposal		50-page limit
	a. Table of Contents (No-page limit)		
	b. Draft Integrated Logistic Support Plan (ILSP) including Configuration Management Plan (in total 50-page limit)		

END OF SECTION 3

SECTION 4 BID EVALUATION AND CONTRACT AWARD

4.1. General

- 4.1.1.** The evaluation of bids will be made by the Purchaser solely on the basis of the requirements in this IFB. Failure to address any of the bidding requirements in this IFB or omission of the critical information may result in a determination of non-compliance for the entire Bid.
- 4.1.2.** The evaluation of bids and the determination as to the compliance or technical adequacy of the supplies and services offered will be based only on that information furnished by the Bidder and contained in his bid. The Purchaser shall not be responsible for locating or securing any information which is not included in the bid or included only by reference.
- 4.1.3.** To ensure that sufficient information is available, the Bidder shall furnish with its bid all information appropriate to provide a complete description of the work which will be performed and/or the supplies to be delivered. The information provided shall be to a level of detail necessary for the Purchaser to determine exactly what the Bidder proposes to furnish and whether the offer meets the technical, administrative and contractual requirements of this IFB.
- 4.1.4.** During the evaluation, the Purchaser may request clarification of the bid from the Bidder and the Bidder shall provide sufficient detailed information in connection with such requests as to permit the Purchaser to make a final assessment of the bid based upon the facts. The purpose of such clarifications will be to resolve ambiguities in the bid and to permit the Bidder to state its intentions regarding certain statements contained therein. The purpose of the clarification stage is not to elicit additional information from the Bidder that was not contained in the original submission or to allow the Bidder to supplement cursory answers or omitted aspects of the bid. The Bidder is not permitted any cardinal alteration of the bid regarding technical matters and shall not make any change to its price quotation at any time.
- 4.1.5.** The Bidder's prompt response to the Purchaser's clarification requests is important and therefore failure to provide the requested clarifications within the time-limits set forth in the specific Clarification Requests (minimum 24 hours next working day) may cause the Bid to be deemed non-compliant

- 4.1.6.** The Purchaser reserves the right, during the evaluation and selection process, to verify any statements made concerning experience and facilities, by making a physical inspection of the Bidder's facilities and capital assets and by interviewing proposed Key Personnel. Physical inspections and interviews shall also apply to assertions in the proposal made on behalf of proposed Subcontractors. The Bidder shall be responsible for providing access to its own or Subcontractors' facilities and personnel.
- 4.1.7.** The evaluation will be conducted in accordance with the Use of Alliance Operations and Missions NSIP Procurement Regulations by the NATO Communications and Information Agency (NCI Agency) set forth in the NATO document AC/4-D(2011)0009-FINAL.

4.2. Evaluation Procedure

4.2.1. The evaluation will be done in a 4-step process, as described below:

4.3. Step 1: Administrative Compliance Evaluation

4.3.1. Prior to commencement of the Price and Technical evaluation, Bids shall be reviewed for administrative compliance in accordance with paragraph 3.4 of this IFB. The evaluation of the Bid Administrative Package will be made on its completeness, conformity and compliance to the requested information. This evaluation is made to determine if a bid complies with the requirements of the Bidding Instructions and Prospective Contract. Specifically, the following requirements shall be verified:

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

4.3.1.2. The Bid Administration Package contains the documentation listed in paragraph 3.4.3, in the proper quantity, and is properly marked.

4.3.1.3. The Bidder has not taken exception to the Terms and Conditions of the Bidding Instructions and the Prospective Contract or has not qualified or otherwise conditioned its offer on a modification or alteration of the Terms and Conditions or the language of the SOW.

4.3.2. Subject to the stipulation of paragraph 0 through 4.3.1.3, bids failing to conform to the above requirements may be declared non-compliant and may not undergo further evaluation. Bids that are determined to be administratively compliant will proceed to Step 2, Price Evaluation.

4.3.3. Notwithstanding paragraph 0 above, if it is later discovered in the evaluation of the Price Quotation or Technical Proposal that the Bidder has taken exception to the Terms and Conditions of the Bidding Instructions and the Prospective Contract, or has qualified and/or otherwise conditioned its offer on a modification or alteration of the Terms and Conditions or the language of the SOW, the Bidder may be determined to have submitted a non-compliant bid at the point in time of discovery.

4.4. Step 2: Price Evaluation

4.4.1. All bids having successfully passed Step 1 shall have their Price Quotation evaluated for the lowest compliant price as follows:

- 4.4.1.1. Compliance with the requirements for preparation and submission of the Price Quotation in accordance with paragraph 3.5.
- 4.4.1.2. All pricing data, i.e., quantities, unit prices, unit price currencies, should be provided as reflected in the Bidding Sheets (at A.1).
- 4.4.1.3. Bid prices include all costs for items supplied, delivered, and supported.
- 4.4.1.4. The Bidder must have provided accurate unit price and the unit price currency of each of the sub-items added (if any).
- 4.4.1.5. The Bidder must have provided accurate unit price, unit price currency and total price for each line item.
- 4.4.1.6. The grand total shall be accurate.
- 4.4.1.7. All prices should be accurately entered into appropriate columns, and accurately totaled.
- 4.4.1.8. Bidders shall indicate that in accordance with the treaties governing the terms of business with NATO, exclude from their prices all taxes, duties and customs charges from which the Purchaser has been exempted.
- 4.4.1.9. Price quotes for each individual item(s), and totaled prices are accurate and realistic, (based on historic data, and/or market and competitive trends in the specified industrial sectors).
- 4.4.1.10. Detailed pricing information has been provided and is adequate, accurate, traceable, and complete.
- 4.4.1.11. The Price Quotation meets requirements for price realism as described below in paragraph 4.4.2.3.

4.4.2. Basis of Price Comparison

- 4.4.2.1. The Purchaser will convert all prices quoted into EURO for purposes of comparison and computation of price scores. The exchange rate to be utilised by the Purchaser will be the average of the official buying and selling rates of the European Central Bank (ECB) at close of business on the last working day of the ECB preceding the Bid Closing Date.
- 4.4.2.2. The price comparison will be based on the offered Grand Total Firm Fixed Price (i.e. base contract CLINs 1-7) plus evaluated optional CLINs 8-12 in the Offer Summary tab from the Bidding Sheets file including the modelled labour element for engineering support.
- 4.4.2.3. An award shall be made on the basis of CLIN 1 through 13.

4.4.3. Price Realism

- 4.4.3.1.** In those cases in which the prices quoted in relation with this IFB appear to be unreasonably low in relation to the performance required under the prospective contract and/or the level of effort associated with the tasks, the Purchaser will reserve the right to request the Bidder clarifications aimed to demonstrate the rationale for such circumstances.
- 4.4.3.2.** Indicators of an unrealistically low bid may be the following, amongst others:
 - 4.4.3.2.1.** Labour Costs that, when amortised over the expected or proposed direct labour hours, indicate average labour rates far below those prevailing in the Bidder's locality for the types of labour proposed.

- 4.4.3.2.2.** Direct Material costs that are considered to be too low for the amounts and types of material proposed, based on prevailing market prices for such material.
- 4.4.3.2.3.** Numerous Line Item prices for supplies and services that are provided at no cost or at nominal prices.
- 4.4.3.3.** If the Purchaser has reason to suspect that a Bidder has artificially debased its prices in order to secure contract award, the Purchaser will request clarification of the bid in this regard and the Bidder shall provide explanation on one of the following bases:
- 4.4.3.3.1.** An error was made in the preparation of the Price Quotation. In such a case, the Bidder must document the nature of the error and show background documentation concerning the preparation of the Price Quotation that makes a convincing case that a mistake was made by the Bidder. In such a case, the Bidder shall petition the Purchaser to either remain in the competition and accept the Contract at the offered price or to withdraw from the competition.
- 4.4.3.3.2.** The Bidder has a competitive advantage due to prior experience or industrial/technological processes that demonstrably reduce the costs of Bidder performance and therefore the price offered is realistic. Such an argument must support the technical proposal offered and convincingly and objectively describe the competitive advantage and the net savings achieved by this advantage over standard market practices and technology.
- 4.4.3.3.3.** The Bidder recognizes that the submitted Price Quotation is unrealistically low compared to its cost of performance and, for business reasons; the Bidder is willing to absorb such a loss. Such a statement can only be made by the head of the business unit submitting the Bid and will normally be made at the level of Chief Operating Officer or Chief Executive Officer. In such a case, the Bidder shall estimate the potential loss and show that the financial resources of the Bidder are adequate to withstand such reduction in revenue.
- 4.4.3.4.** If a Bidder fails to submit a comprehensive and compelling response on one of the bases above, the Purchaser may determine the Bid submitted as non-compliant.

- 4.4.3.5. If the Bidder responds on the basis of paragraph 0 above and requests to withdraw from the competition, the Purchaser may, depending on the nature and gravity of the mistake, allow the Bidder to withdraw with or without penalty.
- 4.4.3.6. If the Purchaser accepts the Bidder's explanation of mistake in paragraph 0 and allows the Bidder to accept the Contract at the offered price, or the Purchaser accepts the Bidder's explanation pursuant to paragraph 0 above, the Bidder shall agree that the supporting pricing data submitted with his Bid will be incorporated by reference in the resultant contract. The Bidder shall agree as a condition of contract signature, that the pricing data will be the basis of determining fair and reasonable pricing for all subsequent negotiations for modifications of or additions to the contract and that no revisions of proposed prices will be made.
- 4.4.3.7. If the Bidder presents a convincing rationale pursuant to paragraph 0 above, no additional action will be warranted. The Purchaser, however, reserves its right to reject such an argument if the rationale is not compelling or capable of objective analysis. In such a case the Bid may be determined to be non-compliant.

4.5. Step 3: Technical Compliance Evaluation

- 4.5.1. Upon determination of the lowest-priced and administrative compliant Bid as described above, that Bid shall be evaluated to confirm compliance with criteria associated with the respective sections of the Technical Proposal.
- 4.5.2. In order for a Bid to be determined to be compliant, the Bidder shall have submitted a Technical Proposal which has met, after evaluation by the Purchaser, all the criteria which are set forth below. All criteria will be evaluated by default also regarding comprehensiveness, feasibility and reasonableness.
- 4.5.3. As well, the Cross Reference - Traceability Matrix as detailed in ANNEX F shall clearly indicate full compliance with all listed project technical requirements stipulated in the Book II, Part IV, Statement of Work and its Annex A: System Requirements Specification (SRS).

4.5.3.1. MANAGEMENT PROPOSAL (60-page limit excluding table of content) with the following information provided:

4.5.3.1.1. Table of Contents

4.5.3.1.1.1. A detailed Table of Contents which lists not only the section headings but also the major sub-sections, and topic headings required set forth in these instructions or implicit in the organization of the Management Proposal was provided.

4.5.3.1.2. Draft Project Management Plan (PMP) (30-page limit)

4.5.3.1.2.1. The Bidder has provided a draft PMP in accordance with Book II, Part IV, Statement of Work, to include all aspects of the project such as the Contractor's project management structure and project management methodology, control processes and tools/environments, and external relationships and relationship with the Purchaser necessary to provide the capability as required by this Contract.

4.5.3.1.3. Bidder Qualifications (30-page limit)

4.5.3.1.3.1. The Bidder has described and demonstrated relevant corporate experience in at least Two (2) recent contract within the last five (5) years for which the Bidder has delivered the same as or substantially similar to the proposed BITI project, with at least one intelligence, military or law enforcement customer. The Bidder has provided a description of the necessary experiences to support the Project and System Lifecycle of the referenced project(s).

4.5.3.1.3.2. For each referenced previous projects above, the Bidder has provided a description of the solution deployed/delivered, highlighting similarities to the proposed solution and migration strategy; the purchaser(s) of these system(s); the user(s) of these system(s); the Contract number(s); the start date and end date of the Contract; a point of contact for verification purposes.

4.5.3.1.3.3. For each of the proposed key personnel, the Bidder has provided the CV of each individual in accordance with the format in ANNEX E, clearly demonstrating their education and experience as required in Book II, Part IV, Statement of Work Annex C.

- 4.5.3.1.3.4.** For each of the proposed key personnel, the Bidder has provided an attestation of security clearance of each individual at NATO SECRET level valid for a minimum of one year after the bid closing date.
- 4.5.3.2. ENGINEERING PROPOSAL** (90-page limit excluding table of content and RTM) with the following information provided:
- 4.5.3.2.1. Table of Contents (No-page limit)**
- 4.5.3.2.1.1.** A detailed Table of Contents which lists not only the section headings but also the major sub-sections, and topic headings required set forth in these instructions or implicit in the organisation of the Engineering Proposal was provided.
- 4.5.3.2.2. System Design Specification (SDS) (no page limit)**
- 4.5.3.2.2.1.1.** The Bidder has provided confirmation of support on development of the SDS and a description of the collaboration plan.
- 4.5.3.2.2.2. Requirements Traceability Matrix (RTM) (no page limit)**
- 4.5.3.2.2.2.1.** The Bidder has provided a Requirement Traceability Matrix (RTM) in accordance with SOW clearly identifying how it aims to fulfil each requirement.
- 4.5.3.2.2.2.2.** The RTM has related all SRS requirements to the system elements. The RTM with no-page limit has been provided in the form of an excel file duly filled out in the same format of the SRS Annex A Hardware and Software REQUIREMENTS and named: 2_IFB-CO-15049-BITI_Book I-Requirements Traceability Matrix.xls
- 4.5.3.2.2.2.3.** The Bidder has provided a description for each type of equipment or software in the SRS (ANNEX A Hardware and Software Requirements) matching the SRS table format for each specific item.
- 4.5.3.2.2.2.4.** This RTM has demonstrated a mature solution which enable to achieve system implementation within the requested milestones in Book II, Part IV, Statement of Work.

4.5.3.2.2.3. Testing (page limit 10)

4.5.3.2.2.3.1. The Bidder has provided a draft Test Plan which clearly addresses the objectives stated in Book II, Part IV, Statement of Work.

4.5.3.3. SUPPORTABILITY PROPOSAL (30-page limit excluding Table of Content) with the following information provided:

4.5.3.3.1. Table of Contents

4.5.3.3.1.1. A detailed Table of Contents which lists not only the section headings but also the major sub-sections, and topic headings required set forth in these instructions or implicit in the organization of the Supportability Proposal was provided.

4.5.3.3.1.2. Draft Integrated Logistic Support Plan (ILSP) (50-page limit)

4.5.3.3.1.2.1. The Bidder has provided a draft Integrated Logistic Support Plan (ILSP) including the Configuration Management Plan (CMP) as described in Book II, Part IV, Statement of Work., demonstrating the Bidder's capabilities in supporting the implementation of the future capability.

4.6. Step 4: Contract Award

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

4.6.2. Bidders that are determined to have submitted non-compliant bids will be so notified and will have an opportunity to challenge such a determination. In such a case, the administrative proposal and the technical proposal of the Bidder who has submitted the apparent second lowest compliant priced bid will be evaluated. The Bidder who has offered the lowest compliant priced, technically compliant bid will then be offered the contract for award.

END OF SECTION 4

ANNEX A BIDDING SHEETS

A.1. Bidding Sheets

IFB-CO-15049-BITI

On behalf of the firm stated below I hereby offer the Purchaser (the NCI Agency) with the services and deliverables (collectively referred as “ITEMS”) set forth in the attached schedules, at the specified prices, and subject to the terms and conditions stated in the referenced IFB.

Date

Signature of Authorised Representative

Printed Name

Title

Company

Bid Reference

A.2. Bidding Sheets Workbook File

A.2.1. The Bidding Sheets are attached in the separate Book I Excel Workbook file: “2_ IFB-CO-14049-BITI_Book I Annex A Bidding Sheets.xlsx”.

A.3. Instructions for the Preparation of Bidding Sheets

A.3.1. Introduction

A.3.1.1. Bid pricing requirements as addressed in this Annex are mandatory. Failure to abide to the prescriptions of bid submission referred in this section may lead to the bid being declared non-compliant and not being taken into consideration for award.

A.3.1.2. No alteration of the bidding sheets including but not limited to quantity indications, descriptions or titles are allowed with the sole exception of those explicitly indicated as allowed in this document. Additional price columns may be added if multiple currencies are bid, including extra provisions for all totals.

A.3.2. General Pricing Requirements

A.3.2.1. Unless explicitly indicated by the Purchaser through a clarification issued in accordance with the prescriptions of Book I, SECTION 2, paragraph 0, the structure of the bidding sheets shall not be altered or otherwise modified in any of its parts. This prescription is to be regarded as applicable also, but not limited to, indicated quantities, item descriptions, references, Purchaser’s inserted Not To Exceed (NTE) amounts (if applicable) or any other indication or instruction provided in the Bidding Sheets.

A.3.2.2. If the Bidder identifies an error in the spreadsheet, it should notify the Purchaser who will make a correction and notify all the Bidders of the update.

A.3.2.3. Bidders shall indicate Firm Fixed Prices for all CLINs in the bidding sheets.

A.3.2.4. Offered prices shall not be made conditional in nature nor contain any expressed or implied limitations which conflicts or otherwise amends any of the prescriptions of the IFB.

- A.3.2.5.** All CLINs (1 through 14) in the Bidding Sheets shall be quoted.
- A.3.2.6.** Bidders shall fill only yellow marked cells in the Bidding Sheets tab “Offer Summary” and tab “CLIN Summary” and all relevant blue or white cells in the other tabs (Material, Labour, Travel, ODC, Rates).
- A.3.2.7.** The prices entered on the document shall reflect the total items required to meet the Contractual requirements. The total price shall be indicated in the appropriate columns.
- A.3.2.8.** In preparing the Bidding Sheets, Bidders shall ensure that the prices of the Sub-items total the price of the major item of which they constitute a part.
- A.3.2.9.** Should the bid be in other than EURO currency, the award of the Contract will be made in the currency(ies) of the bid.
- A.3.2.10.** The Purchaser, by virtue of its status under the terms of Article IX and X of the Ottawa Agreement, is exempt from all direct and indirect taxes (incl. VAT) and all customs duties on merchandise imported or exported.
- A.3.2.11.** Bidders shall therefore exclude from their price bid all taxes, duties and customs charges from which the Purchaser is exempted by international agreement and are required to certify that they have done so through execution of the Certificate at Annex B.5.

ANNEX B PRESCRIBED ADMINISTRATIVE FORMS AND CERTIFICATES

B.1. Certificate of Legal Name of Bidder

This bid is prepared and submitted on behalf of the legal corporate entity specified below:

Full Name of Corporation: _____
—

Division (If Applicable): _____
—

Sub Division (If Applicable): _____
—

Official Mailing Address

E-Mail Address: _____
—

Point of Contact Regarding this bid:
Name: _____

Position: _____

Telephone: _____
—

Alternative Point of Contact:
Name: _____

Position: _____

Telephone: _____
—

Date

Signature of Authorised Representative

Printed Name

Title

Company

B.2. Acknowledgement of Receipt of IFB Amendments

Amendment No.	Date of Issued	Date of receipt	Initials

I confirm that the following amendments to Invitation for Bid n° IFB-CO-15049-BITI have been received and the bid, as submitted, reflects the content of such amendments.

Date

Signature of Authorised Representative

Printed Name

Title

Company

B.3. Certificate of Independent Determination

It is hereby stated that:

- a. We have read and understand all documentation issued as part of IFB-CO-15049-BITI. Our bid submitted in response to the referred solicitation is fully compliant with the provisions of the IFB and the Prospective Contract.
- b. Our bid has been arrived at independently, without consultation, communication or agreement, for the purpose of restricting competition, with any other Bidder or with any competitor;
- c. The contents of our bid have not been knowingly disclosed by the Bidder and will not knowingly be disclosed by the Bidder prior to award, directly or indirectly to any other Bidder or to any competitor; and
- d. No attempt has been made, or will be made by the Bidder to induce any other person or firm to submit, or not to submit, a bid for the purpose of restricting competition.

Date

Signature of Authorised Representative

Printed Name

Title

Company

B.4. Certificate of Bid Validity

I, the undersigned, as an authorised representative of the firm submitting this bid, do hereby certify that the pricing and all other aspects of our bid will remain valid for a period of twelve (12) months from the bid closing date of this Invitation for Bid.

Date

Signature of Authorised Representative

Printed Name

Title

Company

B.5. Certificate of Exclusion of Taxes, Duties and Charges

I hereby certify that the prices offered in the price quotation of this bid exclude all taxes, duties and customs charges from which the Purchaser has been exempted by international agreement.

Date

Signature of Authorised Representative

Printed Name

Title

Company

B.6. Comprehension and Acceptance of Contract Special and Contract General Provisions

The Bidder hereby certifies that it has reviewed the Contract Special Provisions and the NCI Agency Contract General Provisions set forth in the Prospective Contract, Book II of this Invitation for Bid. The Bidder hereby provides its confirmation that it fully comprehends the rights, obligations and responsibilities of the Contractor as set forth in the Articles and Clauses of the Prospective Contract. The Bidder additionally certifies that the offer submitted by the Bidder is without prejudice, qualification or exception to any of the Terms and Conditions and it will accept and abide by the stated Special and General Provisions if awarded the Contract as a result of this Invitation for Bid.

Date

Signature of Authorised Representative

Printed Name

Title

Company

B.7. Disclosure of Requirements for NCI Agency Execution of Supplemental Agreements

I, the undersigned, as an authorised representative of _____, certify the following statement:

All supplemental agreements, defined as agreements, documents and/or permissions outside the body of the Contract but are expected to be required by my Government, and the governments of my subcontractors, to be executed by the NCI Agency as a condition of my firm’s performance of the Contract, have been identified, as part of the bid.

These supplemental agreements are listed as follows:

Examples of the terms and conditions of these agreements have been provided in our Offer. The anticipated restrictions to be imposed on NATO, if any, have been identified in our offer along with any potential conflicts with the terms, conditions and specifications of the Prospective Contract. These anticipated restrictions and potential conflicts are based on our knowledge of and prior experience with such agreements and their implementing regulations. We do not certify that the language or the terms of these agreements will be exactly as we have anticipated.

The processing time for these agreements has been calculated into our delivery and performance plans and contingency plans made in the case that there is delay in processing on the part of the issuing government(s).

We recognise that additional supplemental agreements, documents and permissions presented as a condition of Contract performance or Memorandum of Understanding (MOU) signature after our firm would be selected as the successful bidder may be cause for the NCI Agency to determine the submitted bid to be non-compliant with the requirements of the IFB.

We accept that should the resultant supplemental agreements issued in final form by the government(s) result in an impossibility to perform the Contract in accordance with its schedule, terms or specifications, the Contract may be terminated by the Purchaser at no cost to either Party.

Date

Signature of Authorised Representative

Printed Name

Title

Company

B.8. List of Prospective Subcontractors

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

_____ Date

_____ Signature of Authorized Representative

_____ Printed Name

_____ Title

_____ Company

_____ Bid Reference

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

B.9. Bidder Background IPR

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

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

Item	Description / IP Ownership	Indicate if COTS ¹

- b. The stated Bidder has and will continue to have, for the duration of the Prospective Contract, all necessary rights in and to the Background IPR specified above.
- c. The Background IPR stated above complies with the terms specified in Clause 24 of the Contract Special Provisions and shall be licensed to the Purchaser according to the terms and conditions specified therein and in Clause 30 of the Contract General Provisions.

Date

Signature of Authorised Representative

Printed Name

Title

Company

Bid Reference

Indicate whether the IPR is applicable to a COTS product as defined in the Contract General Provisions.

B.10. List of Subcontractor IPR

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

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

Item	Description / IP Ownership	Indicate if COTS ²

- b. The stated Bidder has and will continue to have, for the duration of the Prospective Contract, all necessary rights in and to the IPR specified above necessary to perform the Contractor’s obligations under the Contract.
- c. The Subcontractor IPR stated above complies with the terms specified in Clause 24 of the Contract Special Provisions and shall be licensed to the Purchaser according to the terms and conditions specified therein and in Clause 30 of the Contract General Provisions.

Date

Signature of Authorised Representative

Printed Name

Title

Company

² Indicate whether the IPR is applicable to a COTS product as defined in the General Contract Provisions.

Bid Reference

B.11. List of Third Party IPR

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

- a. The Third Party IPR specified in the table below will be used for the purpose of carrying out work pursuant to the Prospective Contract.

Item	Description / IP Ownership	Indicate If COTS ¹

- b. The stated Bidder has and will continue to have, for the duration of the Prospective Contract, all necessary rights in and to the IPR specified above necessary to perform the Contractor’s obligations under the Contract.
- c. The Third Party IPR stated above complies with the terms specified in Clause 24 of the Contract Special Provisions and shall be licensed to the Purchaser according to the terms and conditions specified therein and in Clause 30 of the Contract General Provisions.

Date

Signature of Authorised Representative

Printed Name

Title

Company

Bid Reference

Indicate whether the IPR is applicable to a COTS product as defined in the General Contract Provisions

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

The Bidder hereby certifies that, if awarded the Contract pursuant to this solicitation, it will perform the Contract subject to the following conditions:

- (a) None of the work, including project design, labour and services shall be performed other than by firms from and within participating NATO member countries;
- (b) No material or items of equipment down to and including identifiable sub-assemblies shall be manufactured or assembled by a firm other than from and within a participating NATO member country. A sub-assembly is defined as a portion of an assembly consisting of two or more parts that can be provisioned and replaced as an entity; and
- (c) The intellectual property rights to all design documentation and related system operating software shall reside in NATO member countries, and no license fees or royalty charges shall be paid by the Bidder to firms, individuals or Governments other than within the NATO member countries.

Date

Signature of Authorised Representative

Printed Name

Title

Company

Bid Reference

B.13. List of Proposed Key Personnel

Position	SOW Reference(s)	Labour Category	Name	Designation Period
Project Manager	Annex C.1	<i>To be completed by the Bidder</i>	<i>To be completed by the Bidder</i>	EDC through End of Contract
Technical Lead	Annex C.1	<i>To be completed by the Bidder</i>	<i>To be completed by the Bidder</i>	EDC through End of Contract
Technical Writer / Author	Annex C.1	<i>To be completed by the Bidder</i>	<i>To be completed by the Bidder</i>	EDC through End of Contract
VMware Certified Professional (VCP)	Annex C.1	<i>To be completed by the Bidder</i>	<i>To be completed by the Bidder</i>	EDC through End of Contract

*EDC : Effective Date of Contract

B.14. Disclosure of Involvement of Former NCI Agency Employment

The Bidder hereby certifies that, in preparing its Bid, the Bidder did not have access to solicitation information prior to such information been authorized for release to Bidders (e.g., draft statement of work and requirement documentation).

The Bidder hereby acknowledges the post-employment measures applicable to former NCI Agency Personnel as per the NCI Agency Code of Conduct.

The Bidder hereby certifies that its personnel working as part of the company’s team, at any tier, preparing the Bid:

- Has not held employment with NCI Agency within the last two years.
- Has obtained a signed statement from the former NCI Agency personnel below, who departed the NCI Agency within the last two years, that they were not previously involved in the project under competition (as defined in the extract of the NCI Agency Code of Conduct provided in Annex B-15 of this IFB):

Employee Name	Former NCI Agency Position	Current Company Position

The Bidder also hereby certifies that it does not employ and/or receive services from former NCI Agency Personnel at grades A5 and above or ranks OF-5 and above, who departed the NCI Agency within the last 12 months. This prohibitions covers negotiations, representational communications and/or advisory activities.

Date:

Signature:

Name & Title :

Company:

Bid Reference :

B.15. NCI Agency AD. 05.00, Code of Conduct: Post Employment Measures

1. The NCI Agency will not offer employment contracts to former NCI Agency Personnel who departed less than 2 years earlier, unless prior approval by the General Manager has been received.
2. Former NCI Agency Personnel will not be accepted as consultants or commercial counterpart for two (2) years after finalization of their employment at NCI Agency, unless the General Manager decides otherwise in the interest of the Agency and as long as NATO rules on double remuneration are observed. Such decision shall be recorded in writing. Commercial counterparts include owners or majority shareholders, key account managers, or staff member, agent or consultant of a company and/or subcontractors seeking business at any tier with the NCI Agency in relation to a procurement action in which the departing NCI Agency staff member was involved when he/she was under the employment of the NCI Agency. As per the Prince 2 Project methodology, a Project is defined as a “temporary organization that is created for the purpose of delivering one or more business products according to an agreed business case”. For the purpose of this provision, involvement requires (i) drafting, review or coordination of internal procurement activities and documentation, such as statement of work and statement of requirement; and/or (ii) access to procurement information that has not yet been authorized for release for outside distribution, including draft statements of work and requirement documentations; and/or (iii) being appointed as a representative to the Project governance (e.g., Project Board) with access to procurement information as per (ii) above; and/or (iv) having provided strategic guidance to the project, with access to procurement information as per (ii) above.
3. In addition to paragraph 2 above, former NCI Agency Personnel at grades A5 and above or ranks OF-5 and above are prohibited during twelve months following the end of their employment with the NCI Agency to engaging in negotiations, representational communications and/or advisory activities with the NCI Agency on behalf of a private entity, unless this has been agreed in advance by the NCI Agency General Manager and notified to the Agency Supervisory Board (ASB).
4. NCI Agency Personnel leaving the Agency shall not contact their former colleagues in view of obtaining any information or documentation about procurement activities not yet authorized’ release. NCI Agency Personnel shall immediately report such contacts to the Director of Acquisition.
5. The ASB Chairman will be the approving authority upon recommendation by the Legal Adviser when the NCI Agency Personnel concerned by the above is the NCI Agency General Manager and will notify the ASB.

6. NCI Agency Personnel leaving the Agency shall sign a statement that they are aware of the post-employment measures set out in this Directive.
7. The post-employment measures set out in this Directive shall be reflected in the NCI Agency procurement documents, such as IFBs, and contract provisions.

B.16. Certificate of Compliance AQAP 2110 or ISO 9001:2015 or Equivalent

I hereby certify that _____ (name of Company) possesses and applies Quality Assurance Procedures/Plans that are equivalent to the AQAP 2110 or ISO 9001:2015 as evidenced through the attached documentation¹.

.

_____	_____
Date	Signature of Authorised Representative

	Printed Name

	Title

	Company

¹ Bidders must attach copies of any relevant quality certification.

ANNEX C CLARIFICATION REQUEST FORM

IFB-CO-15049-BITI

Company Name:
Submission Date:

ADMINISTRATIVE or CONTRACTUAL			
Serial#	IFB Ref.	Bidder's Question	NCI Agency's Response
A.1			
A.2			
A.3			

IFB-CO-15049-BITI

Company Name:
Submission Date:

PRICE			
Serial#	IFB Ref.	Bidder's Question	NCI Agency's Response
P.1			
P.2			
P.3			

IFB-CO-15049-BITI

Company Name:
Submission Date:

TECHNICAL			
Serial#	IFB Ref.	Bidder's Question	NCI Agency's Response
T.1			
T.2			
T.3			

ANNEX D BID GUARANTEE - STANDBY LETTER OF CREDIT

Standby Letter of Credit Number:

Issue Date: _____

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

Expiry Date: _____

1. We, (issuing bank) hereby establish in your favour our irrevocable standby letter of credit number {number} by order and for the account of (NAME AND ADDRESS OF BIDDER) in the original amount of €300,000.00 (Three Hundred Thousand Euro). We are advised this Guarantee fulfils a requirement under Invitation for Bid IFB-CO-15049-BITI dated _____.

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

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

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

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

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

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

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

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

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

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

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

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

8. Multiple drawings are allowed.

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

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

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

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

ANNEX E CV/RESUME TEMPLATE

Company name

Proposed Team: **Please select**
 Clearance Level: **Please select**
 Proposed Role: **Click here to enter text**
 Key Personnel:

Employment History		
Company (most recent first)	Position	Dates
Summary of role	Click here to enter text	
Summary of relevance	Click here to enter text	
Company	Position	Dates
Summary of role	Click here to enter text	
Summary of relevance	Click here to enter text	
Company	Position	Dates
Summary of role	Click here to enter text	
Summary of relevance	Click here to enter text	
Summary of other experience		

Click here to enter text			
Education, Qualifications and Professional Membership			
Year	Qualification	Institution	Grade/Level
Relevant Experience			
<i>Describe experience and specify level of experience as Expert, Extensive, Familiar, or Limited¹)</i>			
Summary of experience and capability areas			
<i>Role-Specific Skills and Experience (describe experience and specify level of experience as Expert, Extensive, Familiar, or Limited¹)</i>			
Summary of skills and experience relevant to the proposed role			
<i>Tools and Methodologies (describe experience and specify level of experience as Expert, Extensive, Familiar, or Limited¹)</i>			
Summary of experience with relevant tools and methodologies			
International Working Environments			
Summary of experience working in international working environments			
Language Proficiency (as defined in STANAG 6001)			
	Listening	Speaking	Reading
			Writing

English (working language)	Select Level	Select Level	Select Level	Select Level
French	Select Level	Select Level	Select Level	Select Level

¹ **Expert** – is recognized by peers as a subject matter expert through experience, published work, and/or qualifications

Extensive – has direct experience accumulated over a number of years, and relevant qualifications where applicable

Familiar – has some direct experience, more extensive experience in a related area, and/or has undertaken relevant training

Limited – has awareness through indirect experience or related work

ANNEX F CROSS REFERENCE – TRACEABILITY MATRIX

Bidders shall complete column “BID REFERENCE” with Bid references that locate the technical proposal documentation required by the IFB, e.g. section, paragraph, table (*if applicable*), page number etc. Copy of the duly completed Cross Reference/ Traceability Matrix is to be included in the Bid Technical Proposal Package. Table must identify the IFB portions for the Equipment Categories for which the Bid is submitted. The Bid shall follow the instructions in paragraph 3.6, and will be evaluated according to the instructions in paragraph 4.5.

Book I Bidding Instructions Ref	Book II Reference	EVALUATION FACTORS AND CRITERIA	BID REFERENCE
3.6.5.1.1		Table of contents.	To be completed by the Bidder
3.6.5.1.2	SOW & SRS	Cross reference - Traceability matrix: shall clearly indicate full compliance with all listed project technical requirements stipulated in the SOW and SRS.	To be completed by the Bidder
Management			
		Table of contents	To be completed by the Bidder
0	SOW	The Bidder provided a draft PMP in accordance with Book II, Part IV, Statement Of Work Section 4, to include all aspects of the project such as the Contractor’s project management structure and project management methodology, control processes and tools/environments, and external relationships and relationship with the Purchaser	To be completed by the Bidder

Book I Bidding Instructions Ref	Book II Reference	EVALUATION FACTORS AND CRITERIA	BID REFERENCE
		necessary to provide the capability as required by this Contract.	
3.6.5.1.4.5	SOW	<p>The Bidder has described and demonstrated relevant corporate experience in at least Two (2) recent contract within the last five (5) years for which the Bidder has delivered the same as or substantially similar to the proposed BITI project, with at least one intelligence, military or law enforcement customer. The Bidder has provided a description of the necessary experiences to support the Project and System Lifecycle of the referenced project(s).</p> <p>For each referenced previous projects above, the Bidder has provided a description of the solution deployed/delivered, highlighting similarities to the proposed solution and migration strategy; the purchaser(s) of these system(s); the user(s) of these system(s); the Contract number(s); the start date and</p>	To be completed by the Bidder

Book I Bidding Instructions Ref	Book II Reference	EVALUATION FACTORS AND CRITERIA	BID REFERENCE
		<p>end date of the Contract; a point of contact for verification purposes.</p> <p>For each of the proposed key personnel, the Bidder has provided the CV of each individual in accordance with the format in ANNEX E, clearly demonstrating their education and experience as required in Book II, Part IV, Statement of Work Annex B.</p> <p>For each of the proposed key personnel, the Bidder has provided an attestation of security clearance of each individual at NATO SECRET level valid for a minimum of one year after the bid closing date.</p>	
System Engineering			
3.6.5.1.5.3		Table of content	To be completed by the Bidder
0	SOW and all annexes	The Bidder has provided confirmation of support on development of the SDS as per SOW and a description of the collaboration plan.	To be completed by the Bidder

Book I Bidding Instructions Ref	Book II Reference	EVALUATION FACTORS AND CRITERIA	BID REFERENCE
3.6.6.1.5.4.2	SOW and SRS	<p>The Bidder has provided a Requirement Traceability Matrix (RTM) in accordance with SOW clearly identifying how it aims to fulfil each requirement.</p> <p>The RTM has related all SRS requirements to the system elements. The RTM with no-page limit has been provided in the form of an excel file duly filled out in the same format of the SRS Annex A Hardware and Software REQUIREMENTS and named: 2_IFB-CO-15049-BITI_Book I-Requirements Traceability Matrix.xls</p> <p>The Bidder has provided a description for each type of equipment or software in the SRS (ANNEX A Hardware and Software REQUIREMENTS) matching the SRS table format for each specific item.</p>	To be completed by the Bidder
Error! Reference source not found.	SOW	The Bidder has provided a draft Test Plan which clearly addresses the objectives stated in Book II, Part IV, Statement of Work.	To be completed by the Bidder
Supportability			

Book I Bidding Instructions Ref	Book II Reference	EVALUATION FACTORS AND CRITERIA	BID REFERENCE
3.6.5.1.6.3		Table of content	To be completed by the Bidder
3.6.5.1.6.4	SOW Section 5 and Section 8	The Bidder has provided a draft Integrated Logistic Support Plan (ILSP) including the Configuration Management Plan (CMP) as described in Book II, Part IV, Statement of Work., demonstrating the Bidder's capabilities in supporting the implementation of the future capability.	To be completed by the Bidder

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IFB-CO-15049-BITI, Book I
Amendment 3

END OF BOOK I

NATO UNCLASSIFIED

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

Part IV, Statement of Work, Annex A
System Requirement Specification
Technical Refresh of Balkans IT Infrastructure

IFB-CO-15049-BITI

03 June 2020

NATO UNCLASSIFIED
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IFB CO-15049-BITS
Book II, Part IV, Annex A
Amendment no 3

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Section 1. Balkan theatres Capability Requirements

1.1 Background

- [1] This document addresses the architectural design, implementation guidance and technical specifications for the equipment, services and systems to be provided in the scope of the project SOW.

1.2 Requirements Overview

- [2] Request replacement of obsolete CIS equipment at both Balkan theatres.
- (1) NU routers and switches
 - (2) NS routers and switches
 - (3) MS routers and switches
 - (4) NU back end infrastructure
 - (5) NS back end infrastructure
 - (6) MS back end infrastructure
 - (7) NS MFP [Multi-Function Printer] printers;
 - (8) NU MFP printers
 - (9) MS MFP Printers
 - (10) Data center passive infrastructure
 - (11) NU cyber security component
 - (12) MS cyber security component
 - (13) NS cyber security component
 - (14) NU Voice Over IP (VoIP) phones (partial, Bosnia only)
 - (15) NU Analog phones (partial, Bosnia only)
 - (16) NS VTC IP based terminals.
- [3] Request for partial upgrade of NHQ Sa/ EUFOR Unclassified voice services from analog to VoIP based solution

1.3 Contract Deliverables

- [4] The Contractor shall undertake the provision, installation, integration and initial configuration, of the new CIS hardware at the indicated locations in both Balkan theatres.
- [5] The Contractor shall provide all materials and services required to install, connect, configure, test, commission and document the procured capability. The Contractor's efforts shall also include manpower, installation material and cables.
- [6] Vertical cabling between rooms inside and outside buildings are the responsibility of the Purchaser.
- [7] The Contractor shall deliver and install (the contractors responsibility to install them into the communication racks and connect them) the following networking elements in the indicated locations in Kosovo and Bosnia:
- (1) NU routers and switches (LAN and Data Centre)
 - (2) NS routers and switches (LAN and Data Centre)
 - (3) MS routers and switches (LAN and Data Centre)
- [8] The Contractor shall deliver and install the following Voice Infrastructure elements in Bosnia:
- (1) NU and NS V2 Router functional elements to replace the obsolete hardware
 - (2) NU VoIP phones where the existing UTP Cat5E cabling is present
 - (3) NU analog phones where the UTP Cat5E cabling to user desks is not available
- [9] The Contractor shall provide and install the following Automated Information Services (AIS) components:
- (1) Servers, Storage and VMware virtualisation and associated software solutions.
- [10] The Contractor shall deliver and install the following end-user Equipment:
- (1) NS workstations w/ Monitor;
 - (2) Badge controlled Printer/Scanner;
 - (3) VTC equipment
 - (4) Projectors
- [11] The Contractor shall deliver and install the following security Equipment:
- (1) NU firewalls and web proxy (Bosnia only)
 - (2) NS firewalls (Bosnia only)
 - (3) MS firewalls and mailguards (Kosovo and Bosnia)
 - (4) MS XML-Labeling Guards (Kosovo only)
- [12] The Contractor shall deliver and install cabling (single-mode fibre; multi-mode fibre and minimum CAT6 quality STP copper Ethernet) inside the racks, between the racks. The Contractor shall deliver and install the cabling and patching to interface the Contractor provided system to Purchaser furnished cabling.

- [13] The Contractor shall deliver and install communication racks equipped with power distribution and UPS in technical/server rooms.
- [14] The Contractor shall mount the CIS equipment in 19" racks as follows:
- (1) Purchaser furnished 19" existing racks
 - (2) Provided and installed 19" four-pole communication racks. These racks shall be equipped with UPS and power distribution.
- [15] The Contractor shall meet the requirements for System Implementation (SI) in accordance to In particular, the Contractor shall deliver a consolidated system design as part of the Site Installation Data Package, based upon the Technical Specification in Section 3.

Section 2. High Level Architectural View

[16] The architectural view provides an overview of how the main technical services shall be implemented and includes the following views for the 3 network classifications (NU, NS, MS):

- (1) The transmission network layer
- (2) The overlay network layer
- (3) The IT services layer (servers, storage, security)

2.1 Transmission Architecture

[17] Both Balkan theatre HQs (Pristina and Sarajevo) are already equipped with the Customer Edge Device (referred to as a “CED” later in this document) - the Nokia 7705 Service Routers which had been delivered in the past as part of the LTX project. These constitute the entry points to NATO Protected Core Network to provide the MPLS-TE transmission services.

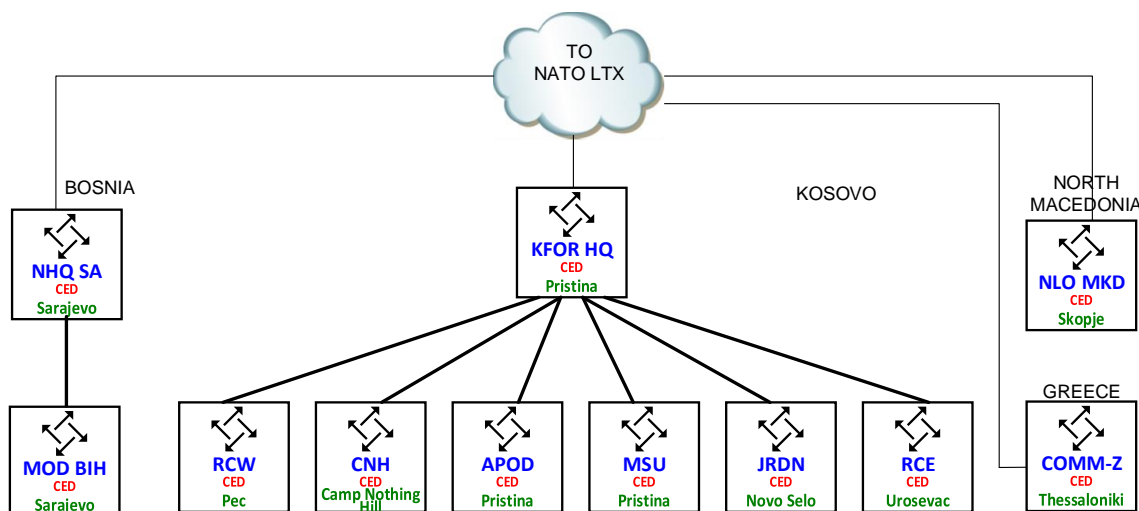


Figure 1. Transmission lines structure

[18] Replacement of the CED devices is not in the scope of the project and the information provided in Chapter 2.1 is for informational purposes only

2.2 Routing Architecture

[19] There are three distinct routed networks supporting both Balkan missions, operating at different security classification levels, namely NATO Unclassified, NATO Secret and Mission Secret

[20] The NU routed network delivers NATO Unclassified services as well as to transport encrypted traffic from the NS and MS domains. The NU network is also used to manage the military-grade TCE 621 crypto devices from the Secure Management Centre (SMC) in SHAPE.

[21] The NS routed network delivers NATO Secret services to the local and remote users within each Balkan mission as well as providing access to global NATO NS domains.

[22] The MS routed network delivers MISSION Secret services to the local and remote users within each Balkan mission

2.2.1 NU WAN

[23] The NU (NATO Unclassified) WAN topology follows the design of the underlying transmission networks and all connections are Ethernet-based.

[24] High level KFOR NU WAN topology is shown below.

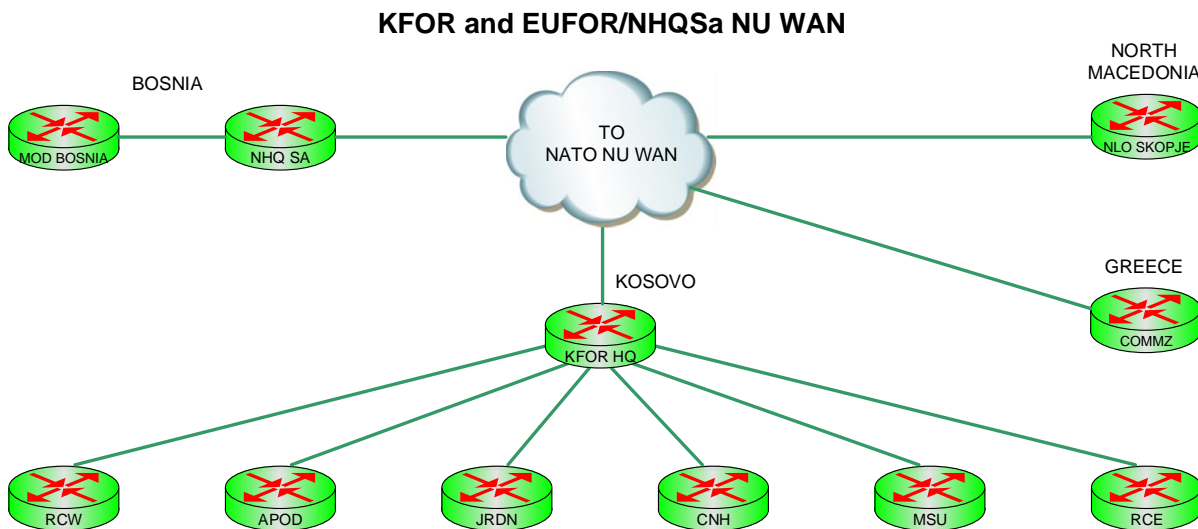


Figure 2: KFOR NU Router Topology

[25] NATO Liaison Office in Skopje, Republic of North Macedonia is connected directly to the NATO General Communications System (NGCS) NU WAN

[26] Military Liaison Office in Belgrade, Serbia is connected via a dedicated VPN service over the Internet and hence not shown on the drawing above

[27] The supporting unit COMM-Z in Thessaloniki, Greece is connected directly to the NATO General Communications System (NGCS) NU WAN

[28] In Bosnia, the only remote location outside the NHQ Sa is the Bosnian MOD in the Sarajevo district of Bistrik.

[29] The scope of the project assumes replacement of the current obsolete hardware and the configurations from the current devices shall be applied (with adaptations and optimizations where needed).

2.2.2 MS WAN

[30] The main business network for both Balkan theatres operates at the MS (Mission Secret) security classification level

[31] The MS networks are composed of a series of overlay GRE tunnels that span the HQ with the subordinate

units

[32] All MS tunnels are routed through the military-grade TCE 621 crypto devices, to establish the secure connections between different locations.

[33] In Kosovo, All six remote locations have the MS footprint as follows

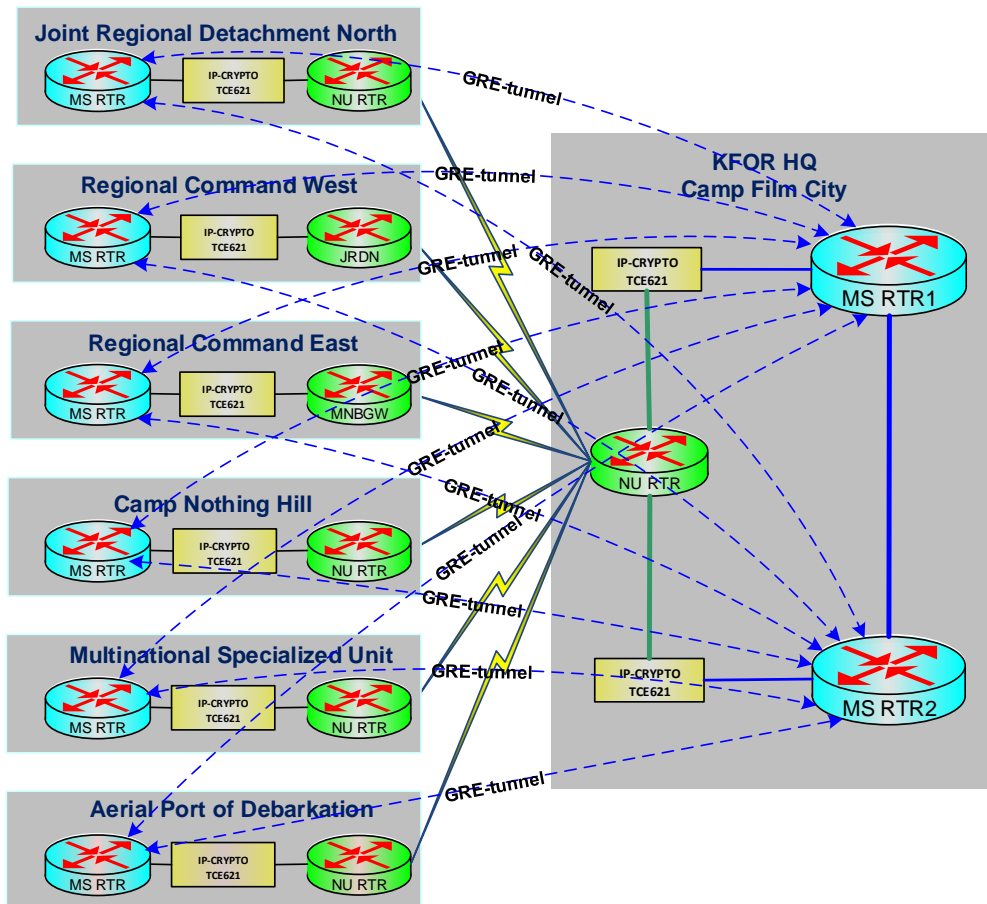


Figure 3: KFOR MS WAN Network

[34] Due to high resiliency requirement of KFOR Mission, two MS routers should be provided at the HQ location

[35] In Bosnia EUFOR/NHQ Sa the Mission Secret network extends from the HQ in Camp Butmir, Sarajevo, to two remote locations in SHAPE, Belgium (EUSG) and Lago Patria, Italy (EUCE)

[36] The scope of the project assumes replacement of the current obsolete hardware and the configurations from the current devices shall be applied (with adaptations and optimizations where needed).

[37] The new MS routers at the KFOR and EUFOR/NHQ Sa HQs shall include a dedicated 1Gbps Ethernet interface for the future interconnection to the planned NATO-Interconnection-Point (NIP) as part of the NATO Target Architecture Federation model.

2.2.3 NS WAN

- [38] The NS (NATO Secret) WAN network for both Balkan theatres operates at the NATO Secret security classification level and interacts with the global NATO Secret network
- [39] The NS networks are composed of a series of overlay GRE tunnels that span the HQ with the subordinate units
- [40] All NS tunnels are routed through the military-grade TCE 621 crypto devices, to establish the secure connections between different locations.
- [41] In Kosovo, only four out of six remote locations in Kosovo have the NS footprint.

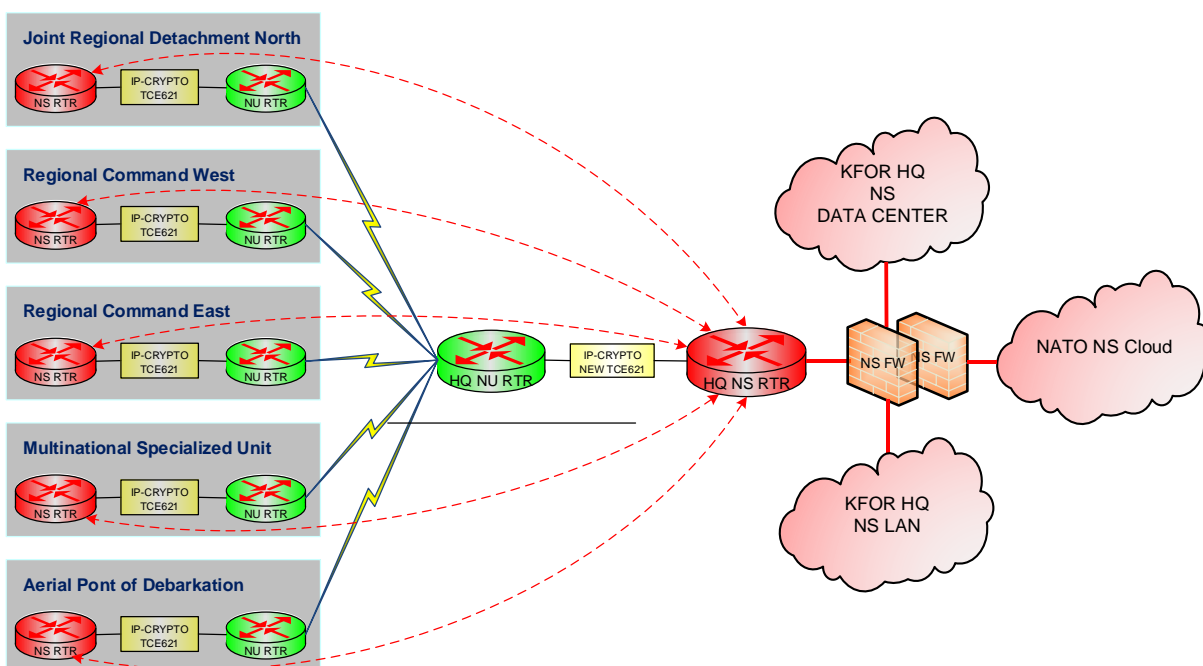


Figure 4: KFOR NS WAN network

- [42] The project scope introduces a new NS router at the KFOR HQ (as shown above) which allows for elimination of the current sub-optimal design with the GRE tunnels from remote units connecting directly to the NGCS NS WAN routers (centrally managed, not a part of the KFOR mission administrative domain).
- [43] The new NS router at the KFOR HQ shall include a dedicated 1Gbps Ethernet interface for the future interconnection to the planned NATO-to-Nations gateway (NNG) as part of the NATO Target Architecture Federation model.

2.3 Switching Architecture

- [44] Both Balkans theatres have the campus-wide LAN networks at HQs and remote subordinate to facilitate user access to mission specific IT resources hosted on the local data center environments.
- [45] There are three distinct switched networks supporting both Balkan missions, operating at different security classification levels, namely NATO Unclassified, NATO Secret and Mission Secret
- [46] The NU LAN connections are implemented in form of both copper and fiber connections
- [47] The NS LAN and MS LAN connections are always implemented in form of multi-mode and single-mode fiber connections (tempest requirements), all NS and MS switches should offer high-density of SFP ports
- [48] The switches to be delivered are expected to be different hardware models depending of their roles in the network (core, access) and positioning within the campus and the size of the user community they provide the connectivity for
- [49] The Campus LAN design shall incorporate where possible the industry best practices with regards to High Availability (redundant links, power supplies, etc.), chassis virtualisation and efficient use of network paths to avoid unnecessary port blocking
- [50] All physical connections between different switches within the campus should be doubled for redundancy and aggregate throughput purposes

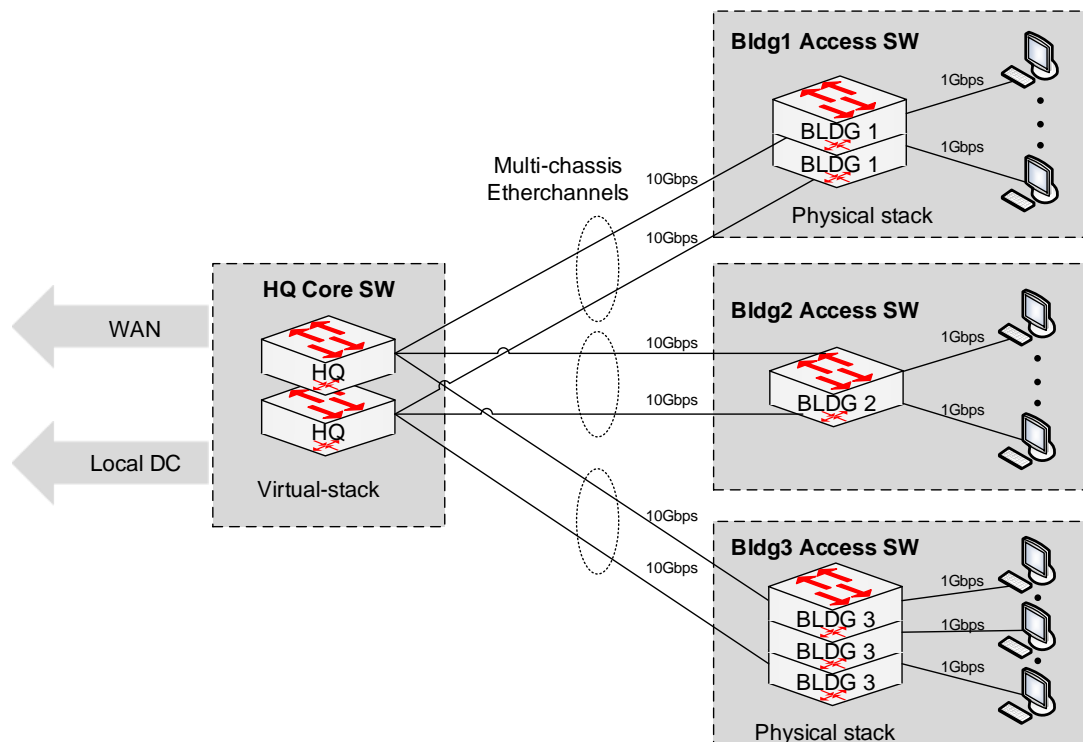


Figure 5 Generic view on required Campus LAN design

- [51] All NS and MS switches to be delivered in the project shall be Certified and provided with SDIP-27 Level B/C TEMPEST Certificate (As indicated in RFQ Bidding Sheet/SSS). Data Center Architecture
- [52] Local Data Centers at both Balkan HQs (Pristina and Sarajevo) shall provide capabilities required for hosting of mission-specific local services.
- [53] A resilient server room architecture shall ensure the resiliency of the IT services for each of the 3 networks at KFOR HQ and NHQ Sarajevo/EUFOR. The architecture will be scaled for each network classification and will ensure the resilience is adequate for the operational criticality and importance of the services performed on each network.
- [54] The Data Center connectivity is implemented in form of both copper and fiber connections.
- [55] The NU Data Center connections are planned to be all 10Gbps and where possible 25Gbps.
- [56] Each mission (KFOR and NHQ Sa/EUFOR) shall have primary and alternate Date Center facility separated physically by a distance of at least 100meters to ensure business continuity in case of a disruptive event.
- [57] Both Data Centers (primary and alternate) within each mission shall follow the industry best practices for high availability, high-throughput, low-latency and efficient use of network resources.
- [58] All physical connections within and between different Data Center switches shall offer full path redundancy and ensure none ports are in blocking state (unified fabric)
- [59] Hardware redundancy shall be put in place (dual switches, dual power supplies, redundant fans, redundant power supply, etc.)
- [60] Different server farm sizes (larger on MS, smaller on NU and NS) are foreseen, with redundant Data Centre switches within each Server Room for MS, and with a single Data Centre switch for each Server Room for NU and NS

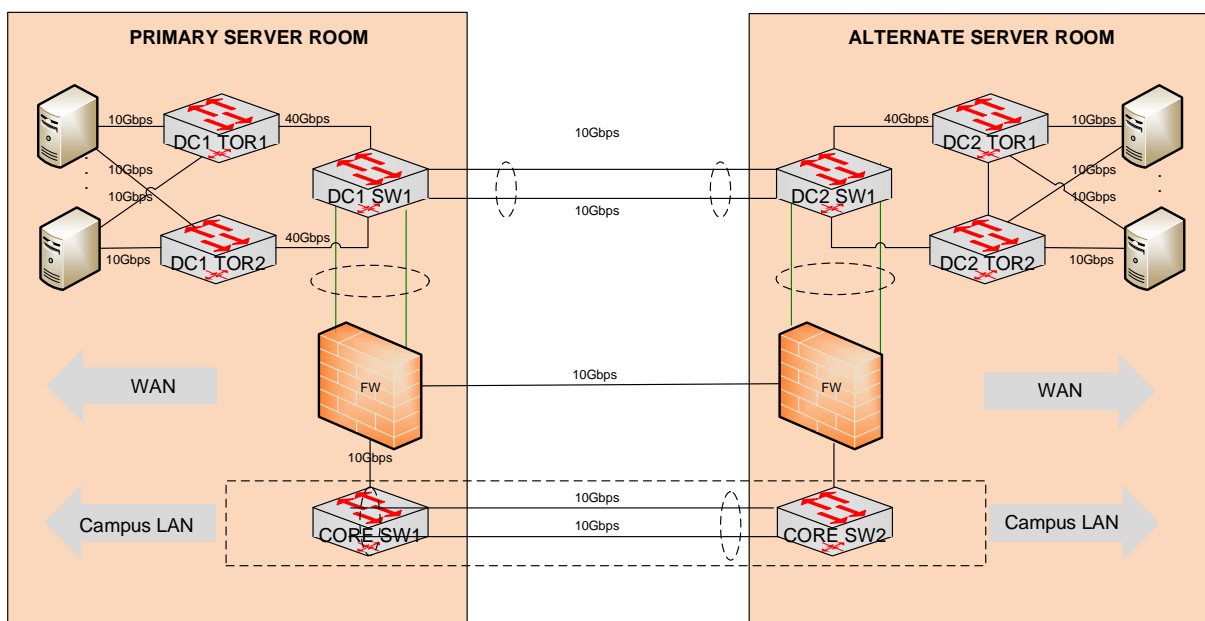


Figure 6 Data Centre connectivity for MS

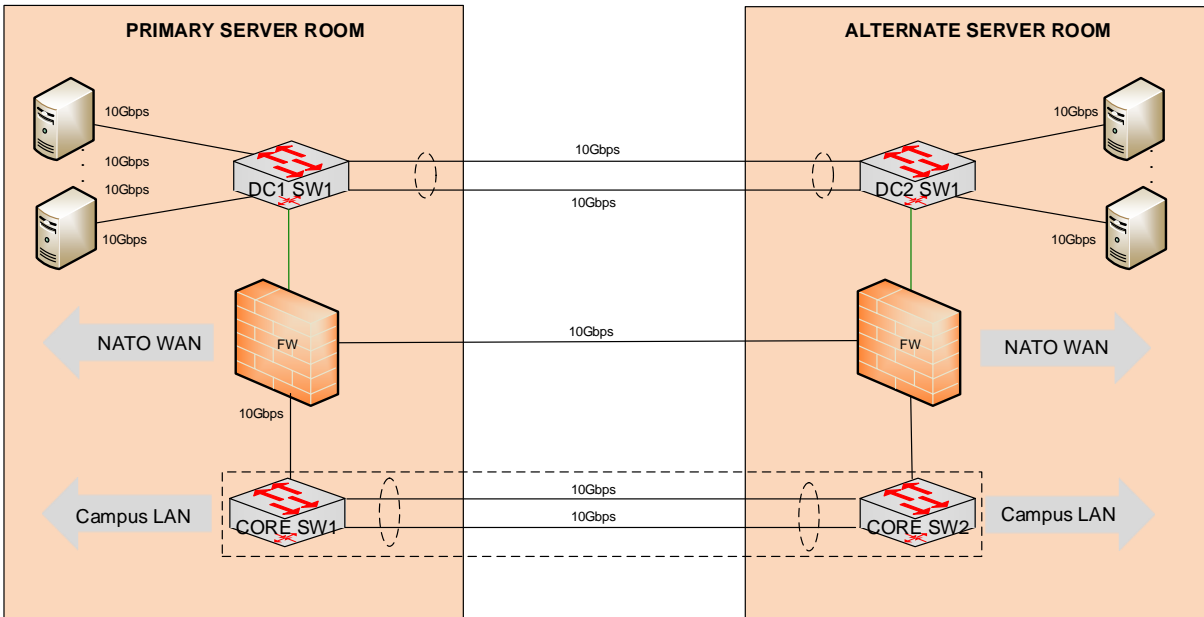


Figure 7 Data Centre connectivity for NU and NS

2.4 IaaS DC Architecture

[61] The IaaS Datacentre Architecture shall provide a high-resiliency virtualised platform using VMware virtualisation technology to host Virtual Machines (VMs) and virtualised storage.

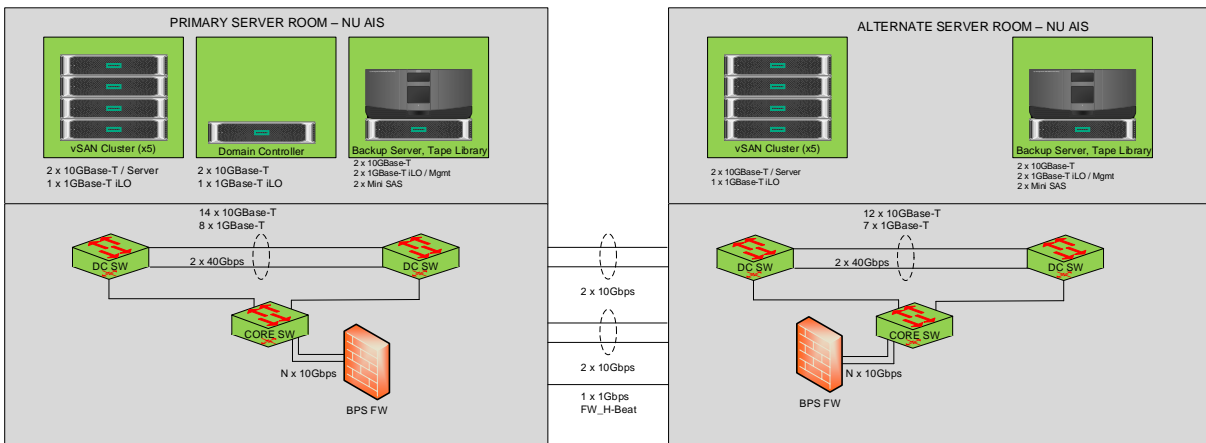


Figure 8: NU Server Room Topology

2.5 Security Zone and Gateway Architecture

[62] Traffic flows between different functional domains shall be subject to zoning to ensure that the proper

of security controls are in place.

[63] The following security policies are enforced on the firewalls to create four distinct zones:

- global NATO cloud (NGCS)
- data centre where the local services are to be hosted
- Local users located in the mission HQ Campus
- Remote users located in subordinate units within the mission

[64] The security zones for NU network are depicted below:

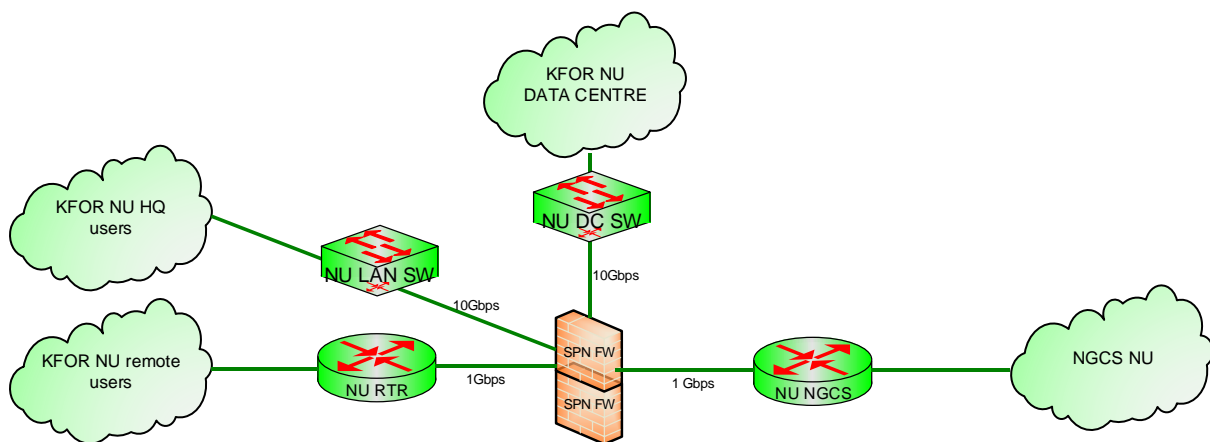


Figure 9 Security zones - NU

[65] The WAN area zones shall be 1Gbps while the local LAN and the data center are to be connected with the 10Gbps paths.

[66] Two firewall cluster members shall be deployed in the primary and alternate servers rooms as per the overall CUR1896 redundancy requirement

[67] For the NS and MS networks the general principles for the security zoning are the same as for NU network but shall use a separate firewall cluster, referred to as IEG-C (Information Exchange Gateway type C) that implements the boundary protection between the static NS and the Mission Secret domains

[68] In addition to the firewall cluster, the IEG-C contains mail guards for scanning email traffic flowing across the NS-MS boundary. In KFOR, the IEG-C also contains XML-labelling guards (XLG) for enabling information exchange between communities-of-interest (COIs) in NATO Secret (high) and Mission Secret (low) network domains. The XLG, also known as a “Web Guard,” is a cross-domain solution that allows automated data exchange between two network enclaves that belong to different security domains. A specification for the XLG is provided in section 3.8.3.

[69] All flows to the NS Data Centers shall be secured by the NS SPN (Self Protecting Node) firewalls, while all communications to MS Data Centers shall be secured by the IEG-C firewalls

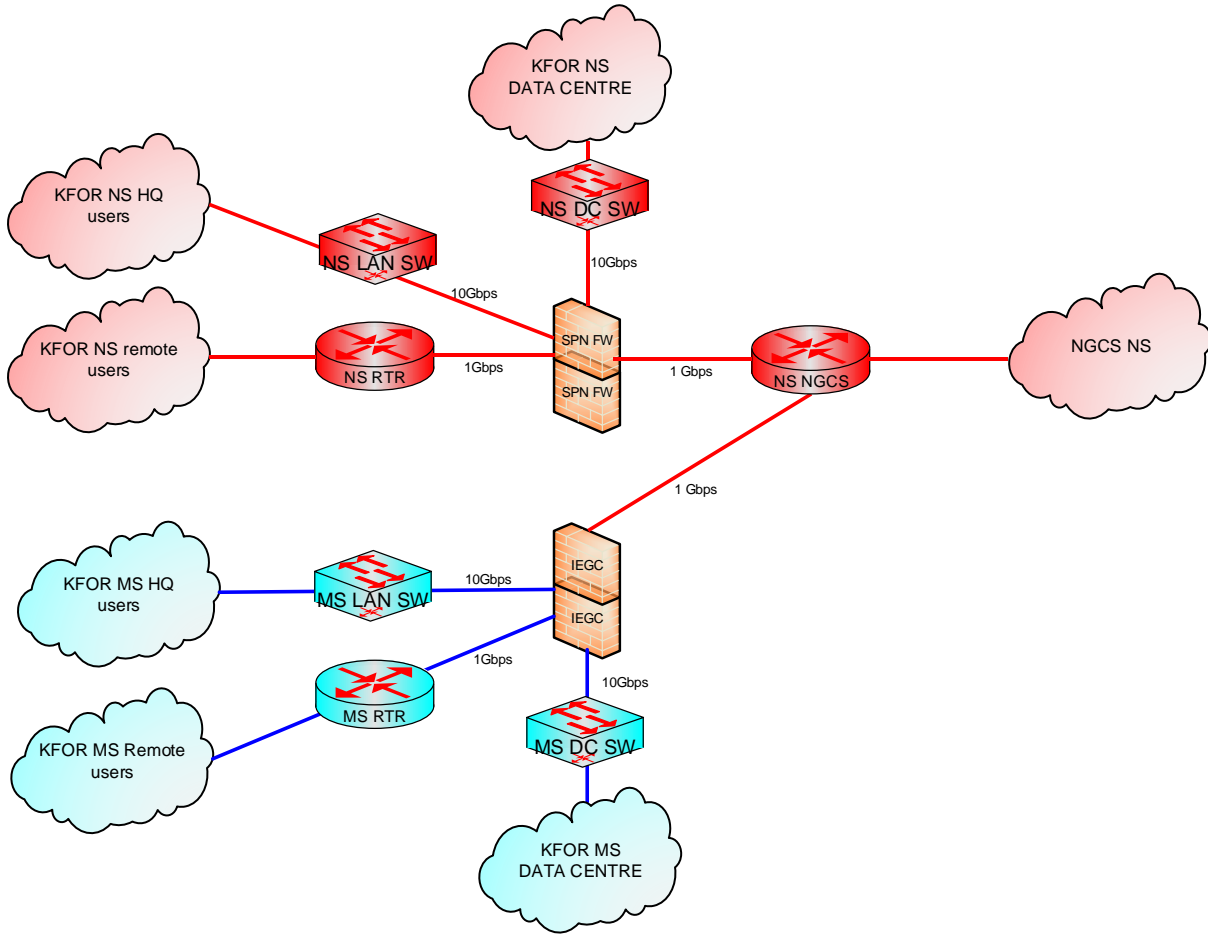


Figure 10 Security zoning - NS and MS

2.6 Voice & Video Network Architecture

2.6.1 NU Telephony Architecture – Bosnia only

- [70] The current telephony services in EUFOR/NHQ Sa Sarajevo (Camp Butmir) are based on the obsolete analog PABX distribution systems and in the scope of the project are foreseen for the partial upgrade to Voice-over-IP (VoIP).
- [71] The upgrade is dictated by the existing Camp Butmir infrastructural cabling limitations preventing the migration to a homogenous, fully digital telephony solution
- [72] For the areas of Camp Butmir where the uplift to a VoIP solution is not feasible, the analog voice gateway devices shall be introduced and all current analog phones will be replaced with the new Gigaset DA-710 devices
- [73] The scope of the project includes extension of NU VoIP services in MOD Bosnia (Bistrik)
- [74] Distribution of NU VoIP and analog components is depicted below and the Power-over-Ethernet switches providing connectivity for VoIP phones and the Analog Voice Gateway shall be integrated into common stack with the corresponding NU data switches.

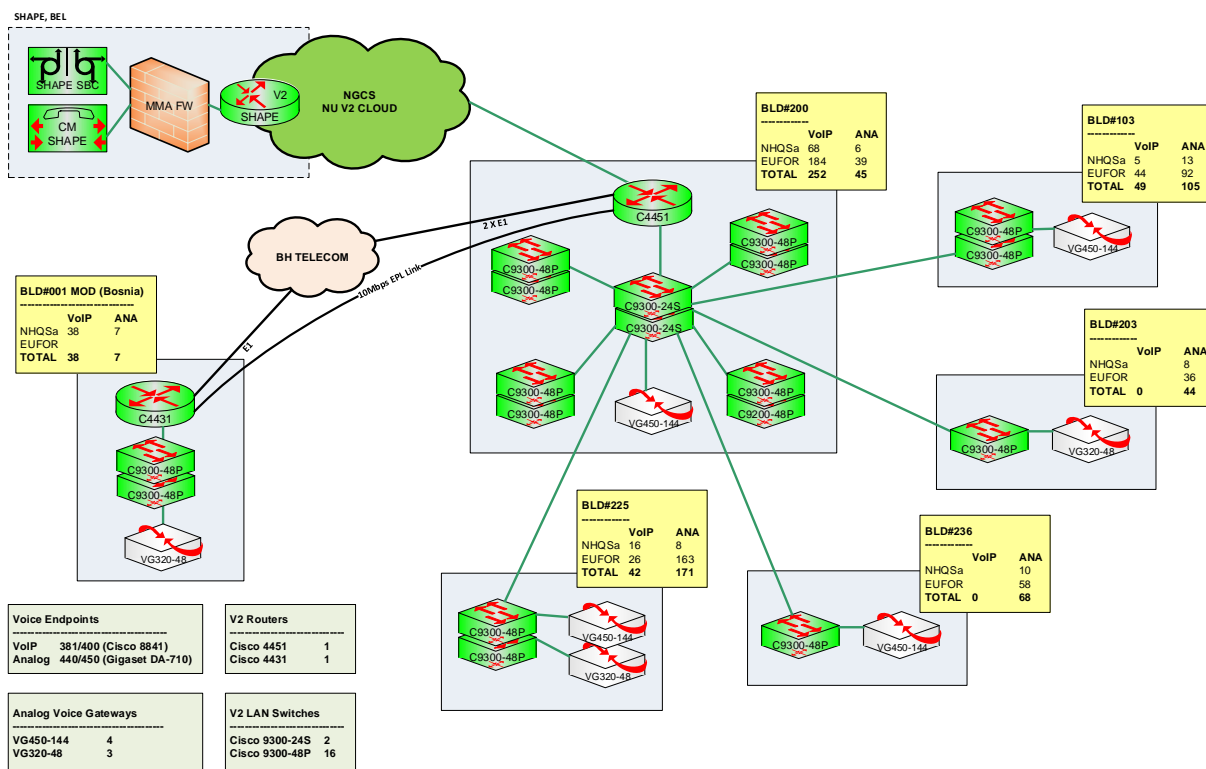


Figure 11: NU Telephony Architecture

2.6.2 NU VTC Architecture

- [75] The project scope includes the NU VTC services that were not provided to EUFOR/NHQ Sa until now. Hardware supporting fulfilment of this requirement shall meet the current baseline, and be fully compatible with existing NU VTC Core infrastructure and therefore shall be based on Polycom Real Presence Group Series codecs.
- [76] The capability shall be implemented at NHQSa (Camp Butmir) and the NHQ Sa remote site - NATO ADVISORY TEAM (NAT) building located within BIH Ministry of Defence (MOD) with 1 x NU VTC System at each location.

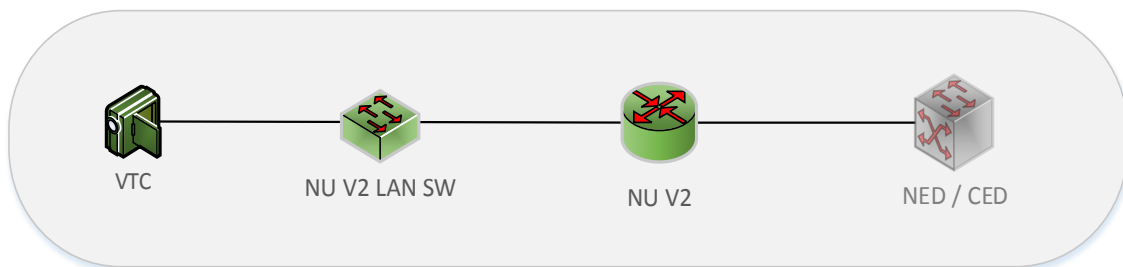


Figure 12 Generic view of NU VTC Topology

- [77] The connectivity between the VTC appliances and the NU V2 routers is to utilize the dedicated NU V2 LAN infrastructure that is to be introduced as part of the NU VoIP telephony upgrade (chapter 2.6)

2.6.3 NS VTC Architecture

- [78] The project scope includes the upgrade of the NS VTC services that are being provided to EUFOR/NHQ Sa. All obsolete hardware supporting the current NS VTC solution shall be replaced.
- [79] The NATO Secret V2 services rely on the presence of a dedicated router which is independent from the NATO Secret data router.
- [80] The NS VTC connectivity within the Camp Butmir campus is implemented over the shared NS LAN infrastructure (a designated VLAN hosting the NS VTC IP based end points transported over NS data switches)
- [81] The NS V2 network (VoIP and VTCoIP) shares the NS V2 crypto - TCE 621/C, i.e. this crypto equipment shall support both NS VTC and NS VoSIP services. Eventually 5 NS VTC terminals are required to be replaced with devices meeting the current baseline and be fully compatible with existing NS VTC Core infrastructure – Polycom Real Presence Group Series codecs. All five VTC endpoints are currently operating with use of IP connectivity over IP crypto device.

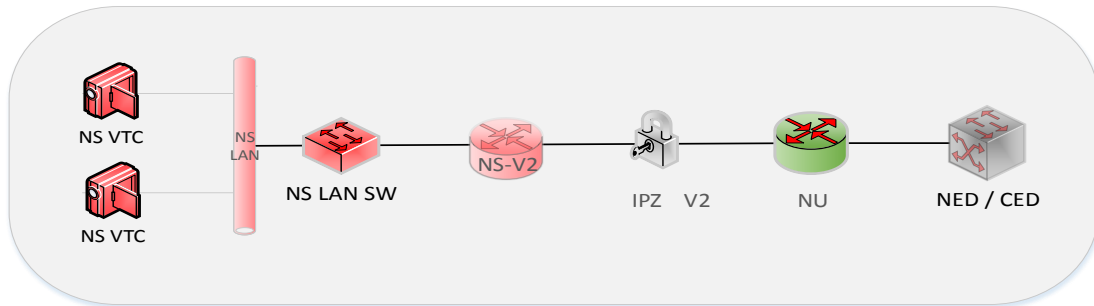


Figure 13 Generic view of NS VTC Topology

Section 3. Technical Services Specification

- [82] The purpose of this section is to provide the Technical Services System Requirements including Preliminary System Designs and System Implementation guidance.
- [83] The equipment provided under this contract shall meet or exceed the technical requirements identified herein for the respective Contract Line Item Number (CLIN) in the SSS.
- [84] Where named brands or models are specified, NATO requires these specific named products to ensure commonality for logistics, maintenance, and troubleshooting purposes. As these are implemented throughout the NATO networks, this enables the Purchaser to minimize the training, spares, maintenance and logistics costs associated with the networks and provide the best support to the end-user.

3.1 Equipment Racks & Cabinets

- [85] The Contractor shall provide equipment racks specified in the SRS.
- [86] Racks shall be installed in technical rooms ensuring correct air-flow and cooling standards are implemented.
- [87] Racks shall be installed to meet the configuration guidance provided at the Site Survey and documented in the SIDP.
- [88] Equipment shall be installed in racks meeting the configuration guidance provided at the Site Survey and documented in the SIDP.
- [89] Equipment shall be installed in racks to comply with SECAN Doctrine and Information Publication (SOW 2.17)

3.1.1 Rack Power Distribution

- [90] All racks shall be installed with PDUs providing in-rack power distribution with IEC C14 sockets to connect equipment mounted in racks.
- [91] All rack UPS and PDUs shall be connected to power distribution points in the equipment rooms identified at the Site Survey and documented in the SIDP.
- [92] Rack UPS shall be sized for the currently installed equipment + 30% spare capacity and shall provide a minimum of 10 minutes backup power.
- [93] Rack UPS shall be equipped with management card that shall feature Ethernet interface (not serial).
- [94] Rack power distribution shall be separated in two (2) groups, as follows:
- (1) Each connecting the main and redundant power supplies of installed equipment;
 - (2) Non redundant equipment shall be equally distributed over both power groups;
 - (3) Both power groups shall be physically separated and labelled accordingly;
 - (4) Cable bundles belonging to power groups shall follow a physically separate path

within in the rack;

- (5) Both power groups shall be individually connected to the in-room power distribution points with dedicated power cables;
- (6) Racks and power distribution shall be connected to the building power supply distributing the load across available fuses; and
- (7) The two power groups within a rack shall be distributed over different fuses.

- [95] Each of the two power distribution groups shall be equipped with as a minimum 12 sockets.
- [96] The rack design and power distribution, including the cabling routing, shall support the placement of a rack-UPS. As a minimum 6U shall be reserved in the bottom of the rack.
- [97] An earth connection will be made from the Main Protective Earth Bus-bar to each rack within the room.

3.2 Network Cabling

- [98] Network cabling meeting specifications provided in the SRS shall be supplied and installed based upon the information collected and guidance provided at the Site Survey and documented in the SIDP.
- [99] The Contractor shall propose any required augmentation in the PFE Cabling plant necessary to successfully implement the solution at a site location.
- [100] The Contractor shall provide and install patch panels (copper) and patch trays (fibre) in the racks identified at Site Survey and documented in the SIDP. Fibre optic patch trays shall be [duplex-LC] and copper-based patch panels shall be [RJ45].
- [101] The Contractor shall install network cabling that complies with the “Cabling Standards for NATO” for:
- (1) Inter-rack cabling/connections; and
 - (2) Inter-room cabling/connections.
- [102] Patch cables (cable lengths shall be identified during the Site Survey). shall be provided and installed for all rack-mounted equipment end-user equipment provided by this project and to connect PFE equipment including:
- (1) Workstations;
 - (2) printers/scanners; and
 - (3) VoIP phones.
 - (4) VTC equipment.

3.2.1 Media Converters

- [103] Media converters, to convert fibre to copper shall be installed for equipment that cannot natively support the required type of media.

3.3 Networking Equipment

- [104] Network equipment that meets the specifications provided in the SRS shall be supplied and installed in

CIS equipment rooms identified at the Site Survey and documented in the SIDP and includes the components:

- (1) Routers
- (2) LAN switches
- (3) Data Center switches
- (4) Analog voice gateways (Bosnia only)

[105] Network equipment (routers, switches etc) shall be installed and configured with a baseline that allows the equipment to be accessed over the network allowing Purchaser administrators to take-over the equipment and perform final configuration and testing.

[106] As a generic requirement all support contracts provided for CISCO equipment shall be based on SNTC 8X5XNBD. It has to be mentioned here that in the individual equipment description this has not specified – as this requirement is valid for all.

3.3.1 Routers

[107] Within the scope of the project all current obsolete routers need to be replaced and two new routers are to be introduced (NS data router at KFOR HQ and NU V2 router at MOD Bosnia)

[108] The routers shall implement WAN connectivity within the theatres boundaries and they shall be placed behind the firewalls separating them from the global NGCS WAN

[109] The Balkan theatres routing element shall be implemented with the hardware that is aligned with the target architecture adopted for NATO networks and is baselined to Cisco Integrated Services 4000 Series devices

[110] The ISR 4000 routers which are to be provided in the project are models ISR4451-X and ISR4431 and depending on the role in the network, shall be delivered with the proper licensing.

[111] The routers for the NU network shall be capable of performing IPSEC operations, hence they shall be delivered with the Security license

[112] The routers for Voice & Video (V2) services shall be delivered with the Unified Communications license

3.3.2 LAN Switches

- [113] Within the scope of the project all current obsolete LAN switches need to be replaced with the up-to-date equivalent hardware platforms and the industry best practices for LAN designs should be incorporated
- [114] The HQ Campus LAN networks are considered a separate security zone on the firewalls
- [115] All existing connections between campus switches should be upgraded from 1Gbps to 10Gbps, and the user access links should be uplifted from 100Mbps to 1Gbps
- [116] At the heart of HQ Campus LAN are the core switches, deployed in pairs to form one brain (virtual stack) but residing individually in primary and alternate server rooms
- [117] All switches in the HQ Campuses (both Pristina and Sarajevo) need to be dual homed to core switches in primary and alternate server room
- [118] The LAN switches present at both Balkan theatres shall be implemented using different platforms from the Cisco Catalyst 9000 portfolio, depending on the network function core or access

3.3.3 Data Center Switches

- [119] The project shall create a distinction between the user domain and the service-hosting environments, hence the need for creation of the data center zone
- [120] The Data Centre networks are considered a separate security zone on the firewalls
- [121] Data Center solution shall implement network switches that are capable of forming of unified fabric (set of paths between endpoints which are all active – lack of spanning-tree blocking)
- [122] The new Data Centre switches shall connect the servers hosting all the mission enabling IT services and per project main requirement, they need to be implemented in a way that provides high speed replication of data between the primary and the alternate server room environments
- [123] The Data Center switches shall be standardized to Dell S-Series 4000/5000 platforms.

3.3.4 Migration

- [124] The Contractor shall provide Engineering Support to migrate equipment, services, users, and data from the existing environment to the new environment.

3.4 End-user Equipment

- [125] The Contractor shall install End-user equipment such as Laptops, printers, VTC unit and phones at the designated locations.
- [126] The Contractor shall deliver and install ancillaries, which include monitors, printers, with the appropriate

mountings.

3.4.1 Introduction

[127] The end-user equipment that shall be provided by the project to replace equipment that is obsolescent includes:

- (1) Workstations & Laptops;
- (2) Printers, Plotters, Scanners and Digital senders;
- (3) Projectors;
- (4) VoIP and Analogue Phones.

[128] End-user equipment shall be positioned in a standard way at each location.

[129] The Contractor shall integrate all current and new client IT equipment provided as Purchaser-Furnished Equipment (see WP4), including the replacement of the network interface card of legacy client hardware.

3.4.2 Installation

3.4.2.1 Workstations & Laptops

[130] The Contractor shall configure and install the workstations and laptops with monitors / keyboard and mouse on the user desks, and connected to the network outlets.

[131] The Contractor shall install and configure the PFE software image according to Purchaser provided NATO Guidelines, which will be provided by the Purchaser after EDC.

[132] The Contractor shall ensure that all workstations and laptops are correctly configured, joined to the domain and can access network services, print and scan by logging on with a standard user account and performing a standard series of tests.

3.4.2.2 Printers/Plotters/Scanners

[133] The Contractor shall configure and install the required printer/scanner in accordance with the Technical Requirements.

[134] The printer/scanners shall be configured to meet NATO security standards for network printer/scanner, which will be provided by the Purchaser after EDC.

[135] The printer/scanners shall be configured to provide secure access via a card reader that will allow follow the user printing to any secure printer.

[136] The primary configuration for printer shall be network attached printers.

[137] The configuration for scanners shall be in network mode enabling Scans to be emailed to user Mailboxes.

3.4.2.3 Projectors

[138] The Contractor shall configure and install the projectors in accordance with the Technical Requirements, which will be provided by the Purchaser after EDC.

3.4.2.4 NU VoIP phones

- [139] VoIP phones meeting the specification provided in the SRS shall be supplied and installed in the areas identified during the Site Survey and documented in the SIDP.
- [140] NU phones shall be operated on a dedicated VLAN segregated from the data systems. Phones shall implement VLAN tagging in accordance with IEEE 802.1Q:2011.
- [141] NU VoSIP phones shall implement Ethernet Class of Service signalling through IEEE 802.1p as included in IEEE 802.1D:2004.
- [142] NU phones shall implement LLDP to configure the VLAN, IEEE 802.1p Ethernet CoS and DSCP markings to be used.
- [143] NU phones shall implement authentication towards the End-user Access Switch in accordance with IEEE 802.1X:2010.
- [144] NU phones shall be configured with static IP address and download the configuration from the designated server, details of which will be provided during the Configuration Guidance Stage of the project.
- [145] The NU V2 Router implements the on-site component of the Purchaser's centralized secure voice services.
- [146] The NU VoIP phones shall be connected to the Power-over-Ethernet enabled switches, integrated into common stack solution with the data switches
- [147] VoIP & VoSIP phones shall be installed using the purchaser provided configuration.

3.4.2.5 NS/NU VTC

- [148] This section addresses specification for VTC Systems that shall ensure full compatibility with the NATO Wide Studio Video Conferencing infrastructure on both Secure and Unclassified networks.
- [149] The VTC Systems shall perform the following functions: Coding/Decoding of audio and video signals; Multiplexing of video, audio, data, and control signals; System control and end-to-end signalling.
- [150] The VTC Systems shall be capable of providing High Definition (HD) video. HD Video means minimum resolution of 720p (upgradable to 1080p), with minimum refresh rate of 30 frames/second (upgradable to 60 fps) at a call speed of 768 Kbps.
- [151] The VTC System shall be High Definition (HD) Audio. HD Audio means full duplex audio with high-Quality Stereo Surround. The minimum audio frequency spectrum covered must be 14kHz.
- [152] The Video Codec shall be capable of providing content sharing with HD720p video resolution and a frame rate of 30fps at a call speed of 768 Kbps.
- [153] The VTC Systems shall be able to connect to any laptop/PC/workstation and display its screen on the Multimedia conferencing display. Plug and Play connection of laptop/PC computers into delivered VTC Systems shall be provided in the following format: VGA, HDMI.
- [154] The VTC Systems shall be operated on a dedicated VLAN segregated from the data systems and support: IPv4 and IPv6, 10/100/1G Ethernet, H.323 and/or SIP up to 6 Mbps and be QoS configurable.

[155] The VTC Systems shall be installed using the purchaser provided configuration.

[156] VTC System components shall meet requirements for TEMPEST Level C equipment.

[157] Pending LAN infrastructure, 1000BASE-SX / 1000BASE-T media converters, converting fibre to copper, compatible with the delivered VTC devices shall be included.

3.4.3 Migration

[158] The Contractor shall provide Engineering Support to migrate equipment, services, users, and data from the existing environment to the new environment.

3.5 IaaS Component

3.5.1 Introduction

[159] The IaaS services component shall be composed from physical and virtual servers and storage elements using server and network virtualisation to provide a shared hosting infrastructure for multiple virtual server machines (VMs).

3.5.2 Installation

[160] The IaaS services shall be installed to provide a Datacentre (DC) to Remote Office Branch Office (ROBO) architecture (see diagram below) at identified locations and network classifications. ROBO locations will have a minimal IT footprint with a local backup capability, services will also be accessed from the DC and critical data and backups shall be replicated to the DC from the ROBO location.

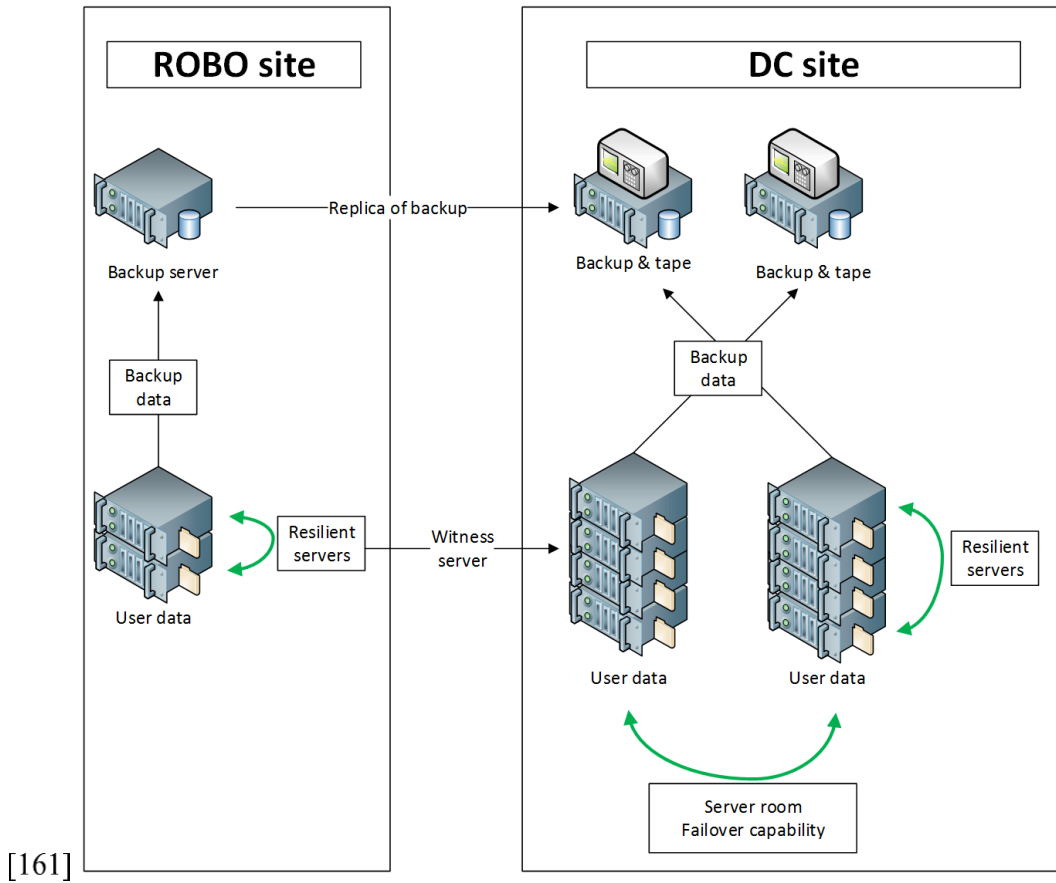


Figure 14: DC and ROBO site IaaS architecture

[162] The IaaS services shall be installed at the following locations and specified network classifications identified in the following table.

Table 1: IaaS Locations and Network Classifications.

Theatre	Location	Classification	IaaS Infrastructure
KFOR	HQ	NS, MS, NU	DC
KFOR	MNB, remotes	NS, MS, NU	None
KFOR	NLO Skopje	NU	ROBO
KFOR	MLO Belgrade	NU	ROBO
KFOR	COMMZ-S	NS, NU	ROBO (no HW required)
NHQ Sa / EUFOR	Butmir	NS, MS, NU	DC
NHQ Sa / EUFOR	Sarajevo MOD	NU	ROBO

Theatre	Location	Classification	IaaS Infrastructure
NHQ Sa / EUFOR	EUSG Mons	MS	ROBO
NHQ Sa / EUFOR	EUCE Naples	MS	ROBO

[163] The IaaS services shall be installed at the following locations and specified network classifications as identified in the following example tables.

Table 2: Example - IaaS Equipment on MS Network at HQ KFOR (DC)

Network Classification: MS			Location: HQ KFOR Datacentre (DC)	
Component Equipment Description	Qty	Rack U	LAN Connection	Facility
vSAN Cluster Host	5	2	2 x 10G-Base-T (Data) 1 x 1G-Base-T (Mgmt)	Primary Server Room
Domain Controller	1	2	2 x 1G-Base-T (Data) 1 x 1G-Base-T (Mgmt)	Primary Server Room
Backup Server	1	2	2 x 10G-Base-T (Data) 1 x 1G-Base-T (Mgmt)	Primary Server Room
Tape Library	1	4	2 x SAS (Data) 1 x 1G-Base-T (Mgmt)	Primary Server Room
vSAN Host	5	2	2 x 10G-Base-T (Data) 1 x 1G-Base-T (Mgmt)	Alternate Server Room
Backup Server	1	2	2 x 10G-Base-T (Data) 1 x 1G-Base-T (Mgmt)	Alternate Server Room
Tape Library	1	4	2 x SAS (Data) 1 x 1G-Base-T (Mgmt)	Alternate Server Room

[164]

Table 3: Example - IaaS Equipment for NU Network MLO Belgrade (ROBO)

Network Classification: NU			Location: MLO Belgrade (ROBO)	
Component Equipment Description	Qty	Rack U	LAN Connection	Facility
vSAN Cluster Host	2	2	2 x 10G-Base-T (Data) 1 x 1G-Base-T (Mgmt)	Server Room
Backup Server	1	2	2 x 10G-Base-T (Data) 1 x 1G-Base-T (Mgmt)	Server Room

[165] The IaaS hardware and software shall be installed in the primary and secondary server rooms of the DC locations and in the server room or technical facility at each ROBO location.

[166] The PFE VMWare software shall be installed on to the equipment provided in this contract to create a

fully functioning and resilient VMWare vSAN Hyper Converged Infrastructure (HCI) that follows the VMWare vSAN Datacenter Cluster and ROBO Deployment Reference Architecture.

- [167] Virtual Machine (VM) templates shall be created to install up to 10 (Ten) Windows Server VMs that meet specifications to be provided by NCIA for each location and each network classification.
- [168] VMWare and Microsoft Windows Server best practices and reference documentation shall be used for the IaaS installation with the NATO Security Instructions for VMWare and Microsoft Windows environments.
- [169] A backup and archiving solution shall be installed using the equipment provided in this contract to provide a two tier backup strategy that provides backup to disk for fast retrieval and backup to tape for long term storage and disaster recovery. To facilitate this two-tier strategy for each site, data will be replicated to the Datacentre sites from the ROBO sites where the data can be stored on tape for disaster recovery purposes and archiving.
- [170] The IaaS VMWare vSAN Datacenter shall be installed as a five (5) host cluster to provide the following estimated resources for the virtual servers:
- (1) 270Tb of raw storage
 - (2) 205 vCPU
 - (3) 610 vRAM

[171] The vSAN Datacenter Cluster nodes shall use an all-flash configuration to maintain storage performance on virtual servers.

[172] The IaaS equipment shall be installed and configured with a baseline that allows the equipment to be accessed over the network allowing Purchaser administrators to take-over the equipment and perform final configuration and testing.

3.5.3 Migration

[173] The Contractor shall provide Engineering Support to migrate equipment, services, users, and data from the existing environment to the new environment.

3.6 Physical Server Component

3.6.1 Introduction

[174] Physical servers for the Domain Controller and Backup Server roles shall be provided by the project.

3.6.2 Installation

[175] One (1) physical server shall be installed as a Domain Controller for each network classification in the Data Center locations.

[176] Two (2) physical servers shall be installed as Backup Servers for each network classification in the Data Center locations and one (1) Backup Server at ROBO locations.

[177] The physical Windows Domain Controller and Backup Servers shall be installed with PFE system

updates, antivirus, and application software and ensure they are added to the domain to receive all appropriate GPO's and security settings.

3.6.3 Migration

[178] The Contractor shall provide Engineering Support to migrate equipment, services, users, and data from the existing environment to the new environment.

3.7 Backup & Archiving Component

3.7.1 Introduction

[179] Backup and archiving equipment (servers and tape libraries) shall be installed to protect system and user data in case of data deletion, data corruption and other scenarios.

3.7.2 Installation

[180] A two tier backup architecture using disk based storage for fast backup and restore, and backup to tape for long term retention and archive shall be installed.

[181] Data shall be protected by installing the backup server and tape library in a different server room to that of the source data.

[182] VEEAM Backup and Replication software (PFE) shall be installed for performing backup and archive.

[183] The backup server, drivers and associated backup software shall be installed.

[184] The tape media and library shall be installed and a backup schedule ensuring at least the following requirements shall be setup:

(1) RPO (Recovery Point Objective)

a) **24 hours on system data**

b) **24 hours on file, SharePoint and Email data**

c) **1-24 hours for certain databases which shall be agreed during the implementation**

(2) RTO (Recovery Time Objective)

a) **In case of a restore of a single system: 4 hours**

[185] All VM's and the backup media server shall be included in the backup schedule. At a minimum all system state data and user data shall be backed up.

[186] Domain Controller servers do not need to be backed up by VEEAM as they are equipped with different recovery methods.

[187] Backups shall be saved on disks for 1 Month after which they shall be archived on tape library.

[188] The backup schedule and retention plan shall be agreed with the purchaser.

[189] All backup traffic shall be routed through separate interfaces on a dedicated VLAN in order not to

negatively impact operational traffic.

3.7.3 Migration

[190] The Contractor shall provide Engineering Support to migrate equipment, services, users, and data from the existing environment to the new environment.

3.8 Security Component

3.8.1 Introduction

[191] Security equipment, including firewalls, network-based intrusions prevention systems (NIPS), mailguards, and XML-Labeling Guards shall be installed at network boundaries to protect and monitor the flow of information in and out of Balkans networks.

3.8.2 Installation

[192] The security components shall be installed to provide boundary protection services at the network boundaries of the three distinct networks supporting each Balkan missions: NATO Unclassified, NATO Secret, and Mission Secret.

[193] All security components (firewalls, mailguards, NIPS, XML-Labeling guards) shall be installed and configured with a baseline that allows for remote configuration and testing by the Purchaser.

[194] The NIPS components shall be installed as software modules on the firewalls. In cases where existing Palo Alto firewalls are to be provided as PFE, NIPS software modules are to be provided for use on the PFE firewalls.

[195] The security components shall be installed in the primary and secondary server rooms of the DC locations, with one firewall installed in the server room at the NLO Skopje ROBO location.

[196] The security components shall be installed at the following locations and specified network classifications as identified in the following table.

Table 4: Security Components Locations and Network Domains.

Theatre	Location	Network Domain	Security Components
KFOR	HQ	NS, NU	NIPS (on PFE firewalls)
KFOR	HQ	MS	Firewalls NIPS Mailguards XML-Labeling Guards
KFOR	NLO Skopje	NU	Firewall

Theatre	Location	Network Domain	Security Components
NHQ Sa / EUFOR	Butmir	NS, NU	Firewalls NIPS
NHQ Sa / EUFOR	Butmir	MS	Firewalls NIPS Mailguards

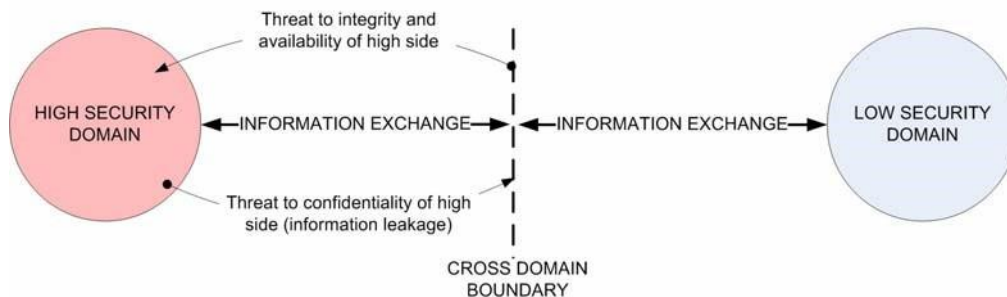
3.8.3 XML-Labeling Guard (XLG)

[197] The XML-Labeling Guard (XLG), also known as a “Web Guard,” shall provide a cross-domain solution (CDS) based on the use of labels (NATO STANAGS ADatP-4774 and ADatP-4778). The key function of the XLG is to allow automated data exchange between two network enclaves that belong to different security domains. From the XLG’s perspective, one enclave is defined as the high domain, and the other enclave as the low domain.

In an information-exchange scenario involving a high domain and a low domain, also called a cross-domain information exchange, shall address the following threats to the high domain:

- (1) Leakage of confidential information from the high domain to the low domain;
- (2) Degradation of the integrity or availability of resources in the high-security domain.

[198] Figure 15 illustrates these threats.



[199]

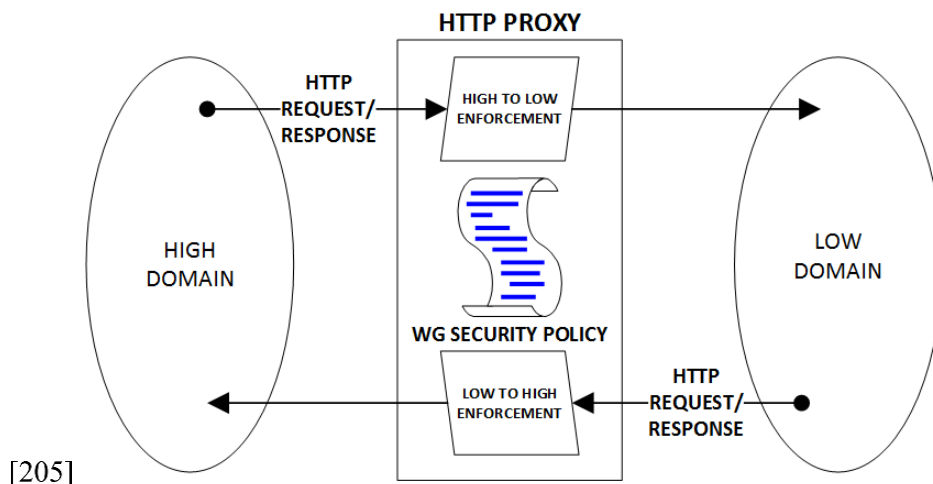
Figure 15: Threats to the high domain in cross-domain information exchange

[200] The XLG shall enable cross-domain information exchange by mediating traffic flows, while offering sufficient protection against the threats mentioned above by enforcing an appropriate security policy. In the case of high-to-low traffic, when information crosses the cross-domain boundary, the information is considered to have been ‘released to the low domain.’

[201] The XLG shall protect the confidentiality of information, and the integrity and availability of resources in the high-security domain. The integrity and availability of the high domain is protected by allowing only those messages that have a white-listed message format to pass from the low domain to the high-

security domain. In addition, constraints are set on the contents of the message. This is captured in a security policy.

- [202] The confidentiality of information shall be protected when messages pass from the high domain to the low domain by validating the confidentiality metadata label¹ that is bound to the information. Depending on the values contained in the label, the security policy in effect and the XLG's functionality/configuration, the XLG rejects the release of information, or accepts it.
- [203] From the XLG's point of view, each attempted transfer of data from the high to the low domain is considered a request for information release. In order to make the information-release decision to reject or accept, the XLG shall validate a confidentiality metadata label that is bound to the information. The label and the binding mechanism must comply with the NATO standards ADatP-4774 and ADatP-4778. Depending on the information exchange scenario, the services in the COIs that use the XLG to transfer information, and the security policy in effect, the XLG shall either leave the confidentiality metadata label unaltered, or remove it. Removal of the label is an option if the label will not be processed any further in the low domain.
- [204] To the COI services that make use of the XLG (in either the high or the low domain), the XLG shall act as a hypertext transfer protocol (HTTP) 1.1 proxy [IETF RFC 7230, 2014]. The specific behavior of the XLG with respect to HTTP connectivity however, will also be influenced by the security policy that is enforced by the XLG. The XLG mediates HTTP traffic between HTTP clients and HTTP servers that reside in the high or low domain. The XLG security policy pertains to both directions that HTTP messages can flow. For messages flowing from high to low, the enforcement of the XLG security policy is referred to as 'high to low enforcement'. For messages flowing from low to high, it is referred to as 'low to high enforcement', see Figure 16.



¹ Term defined in NATO STANAGS ADatP-4774 and ADatP-4778.

Figure 16: The XLG provides HTTP proxy functionality to both domains, and enforces a security policy on traffic flowing in both directions

[206] For both directions of traffic flow, the XLG security policy determines the security policy enforcement functionality that is enabled.

[207] The XLG facilitates the bi-directional transfer of HTTP [IETF RFC 7230, 2014] messages (request and response) between the high and low network domains.

- (1) The XLG shall facilitate the mediation of HTTP messages between the high domain and low domains.
- (2) The XLG shall be connected to both the high domain and the low domains via separate physical interfaces.
- (3) The XLG shall persist HTTP and HTTPS connections across network domains, initiated from both the high domain and low domain (and vice-versa).
- (4) The XLG shall support Transport Layer Security (TLS, [IETF RFC 5246, 2008]).
- (5) [Intentionally Blank]
- (6) With failed TLS connections, the XLG shall not fall back to an insecure connection.
- (7) The XLG shall be capable of correlating HTTP request and response messages that belong to the same HTTP connection.
- (8) The XLG shall support a minimum of 25 parallel information flows with different endpoints at either side. Each information flow may have multiple connections in parallel simultaneously.
- (9) The XLG shall support different certificates for different information flows, as well as the reuse of the same certificate for several information flows.
- (10) The XLG Network Time Protocol (NTP) service shall be synchronized to a designated authoritative NTP service.
- (11) The XLG shall persist an HTTP connection until:
 - a) An HTTP response is received and the security policy has been enforced; or,
 - b) The HTTP connection is timed out.
- (12) The XLG shall reassemble all chunks of an HTTP message that was received with chunked transfer encoding.
- (13) The XLG shall ensure new HTTP connections (initiated by the XLG to the HTTP server on the high or low domain) shall not use the stateful HTTP protocol attributes associated with the connection to the XLG (initiated by the HTTP client in the high or low domain).

(14) The XLG shall perform error handling as specified in [IETF RFC 7231, 2014].

[208] The XLG intercepts HTTP and HTTPS traffic and enforces policies for controlling information flow.

- (1) The XLG shall offer an information flow control policy enforcement capability to mediate the flow of information between the high domain and the low domain (and vice-versa) in accordance with the information flow policies.
- (2) The XLG information flow control policy enforcement capability shall enforce information flow policies based upon the direction of message flow (high to low and low to high).
- (3) The XLG information flow control policy enforcement capability shall accept an information flow (high to low or low to high) if enforcement of the information flow policy passes the rules configured for that information flow policy.
- (4) The XLG information flow control policy enforcement capability shall enforce information flow policies based upon the following rules:
 - a) traffic flow that is allowed or disallowed based on source and destination IP addresses (alternatively this requirement may be met through the firewall);
 - b) traffic that is allowed or disallowed based on protocols and ports;
 - c) traffic that is allowed or disallowed based on values of protocol fields; and,
 - d) information that is allowed or disallowed based on content inspection policy enforcement.
- (5) The XLG information flow control policy enforcement shall use the XLG public key cryptographic capability (described later in this section) if the information flow is configured to support TLS connections.
- (6) The XLG information flow control policy enforcement capability shall deny an information flow (high to low or low to high) if enforcement of the information flow policy fails any rule configured for that information flow policy.
- (7) In the case an information flow policy has been violated the XLG information flow control policy enforcement capability shall be configurable to:
 - a) drop HTTP(S) connections;
 - b) reset HTTP(S) connections; or,
 - c) send a standard or custom HTTP error message.
- (8) The XLG shall ensure that no illicit information flows exist to circumvent the enforcement of information flow policies.

[209] The XLG intercepts HTTP and HTTPS traffic and enforces policies for content inspection identifying, verifying, and transforming information based on those policies.

- (1) The XLG shall offer a content inspection policy enforcement capability to mediate the types of information permitted to flow between the high domain and the low domain (and vice-versa) in accordance with the content inspection policies.

- (2) The XLG content inspection policy enforcement capability shall enforce content inspection policies based upon the direction of message flow (high to low and low to high).
- (3) The XLG content inspection policy enforcement capability shall manage and schedule the routing of information through content filters in accordance with the content inspection policies enforced per information flow.
- (4) The XLG content inspection policy enforcement capability shall accept information (high to low or low to high) if enforcement of all the content inspection policies pass the rules configured for that information.
- (5) The XLG content inspection policy enforcement capability shall be configured to support content inspection for the following information types:
 - a) HTTP messages as defined in Hypertext Transfer Protocol – HTTP/1.1 [IETF RFC 7230, 2014]; and,
 - b) XML 1.0 [W3C XML, 2006].
- (6) The XLG content inspection policy enforcement capability shall support XML schema validation compliant with XML Schema Language 1.0 [W3C XML Schema 1, 2004], [W3C XML Schema 2, 2004].
- (7) The XLG content inspection policy enforcement capability shall support canonicalization of XML.
- (8) [Removed]
- (9) [Removed]
- (10) The XLG content inspection policy enforcement shall use the XLG public key cryptographic capability (described later in this section) for validating or signing information that is digitally signed or requires to be digitally signed.
- (11) The XLG content inspection policy enforcement capability shall provide HTTP entity-header validation.
 - a) The XLG content inspection policy enforcement capability shall prevent information about resources (e.g. IP addresses, host names, fully qualified domain names, system times, version numbers) to be leaked from the high domain to the low domain.
 - b) The XLG content inspection policy enforcement capability shall be configurable to permit a white list of allowed HTTP start-lines and HTTP entity-headers.
 - c) The XLG content inspection policy enforcement capability shall be configurable to block or transform HTTP messages that contain non-white-listed HTTP start-lines or HTTP entity-header fields.
 - d) The XLG content inspection policy enforcement capability shall be configurable to remove, add or modify HTTP start-lines, HTTP entity-header

fields and HTTP entity-header field values.

- (12) The XLG content inspection policy enforcement capability shall provide HTTP entity-body validation.
- a) The XLG content inspection policy enforcement capability shall be configurable to constrain the size of HTTP message permitted.
 - b) The XLG content inspection policy enforcement capability shall be configurable to permit a white list of content types (also known as media type or MIME type) contained in the HTTP entity-body.
 - c) The XLG content inspection policy enforcement capability shall be configurable to permit a white list of XML Schemas.
 - d) The XLG content inspection policy enforcement capability shall validate XML-based content types contained in the HTTP entity-body are well formed.
 - e) The XLG content inspection policy enforcement capability shall validate XML-based content types contained in the HTTP entity-body against the white list of XML Schemas.
 - f) The XLG content inspection policy enforcement capability shall be configurable to block or transform an XML-based HTTP entity-body that fails XML Schema validation.
 - g) The XLG content inspection policy enforcement capability shall be configurable to transform an XML-based HTTP entity-body, whereby an XML node(s) fails XML Schema validation.
- (13) The XLG content inspection policy enforcement capability shall provide confidentiality metadata label validation.
- a) The XLG content inspection policy enforcement capability shall support the NATO standard ADatP-4774 “Confidentiality Metadata Label Syntax”.
 - b) The XLG content inspection policy enforcement capability shall support the NATO standard ADatP-4778 “Metadata Binding Mechanism”.
 - c) [Intentionally Blank]
 - d) [Intentionally Blank]
 - e) The XLG content inspection policy enforcement capability shall support the binding profile “Simple Object Access Protocol (SOAP) Binding Profile” in ADatP-4778.
 - f) The XLG content inspection policy enforcement capability shall support the binding profile “Representational State Transfer (REST) Profile” in ADatP-4778.
 - g) The XLG content inspection policy enforcement capability shall support the binding profile “XML Signature Cryptographic Artefact Profile” in ADatP-4778.

- h) The XLG content inspection policy enforcement capability shall support the binding profile “Digital Signature Cryptographic Artefact Profile” in ADatP-4778.
- i) [Intentionally Blank]
- j) The XLG content inspection policy enforcement capability shall provide functionality to import security labelling policies².
- k) The XLG content inspection policy enforcement capability shall validate the confidentiality metadata label values against the security labelling policy, identified by the policy identifier.
- l) The XLG content inspection policy enforcement capability shall validate the origin, integrity, and binding of a confidentiality metadata label.
- m) [Intentionally Blank]
- n) For each valid confidentiality metadata label bound to a data object the XLG shall perform a confidentiality metadata label-based access control decision.
- o) The XLG content inspection policy enforcement capability shall provide functionality to remove ADatP-4778 binding information that has passed confidentiality metadata label validation and confidentiality metadata label-based access control.
- p) [Intentionally Blank]
- q) [Intentionally Blank]
- r) The XLG content inspection policy enforcement capability shall be capable to block or transform data objects that result in failed confidentiality metadata label validation or deny confidentiality metadata label-based access control decisions as a result of that confidentiality metadata label bound to that data object.
- s) [Intentionally Blank]

(14) The XLG shall ensure that no illicit information flows exist to circumvent the enforcement of content inspection policies.

[210] The XLG shall provide confidentiality metadata label-based access control.

(1) The XLG shall provide configuration to upload confidentiality clearances³ for an

² A security labelling policy defines all the allowable values within a security policy and the relationships between them, such as: policy identifier, classification, and categories. In the context of access control using confidentiality labels and confidentiality clearances it primarily relates to two things: defines the confidentiality metadata values that are valid; and, defines how confidentiality metadata labels are matched against confidentiality clearances.

³ Refer to ADatP-4774 for further information relevant to confidentiality clearance.

interconnection.

- (2) The XLG shall compare the confidentiality metadata values from the confidentiality metadata label and the confidentiality clearance(s) configured for the interconnection based on the rules defined by the security labelling policy.
- (3) [Intentionally Blank]

[211] The XLG shall provide a public key cryptographic capability to provide cryptographic operations and key management.

- (1) The XLG public key cryptographic capability shall conform to the INFOSEC Technical and Implementation Directive on Cryptographic Security and Cryptographic Mechanisms [NAC AC/322-D/0047-REV2 (INV), 2009], except where conflicting with national certification requirements (details of such conflict must be provided as part of bid response).
- (2) The cryptographic mechanisms implemented by XLG public key cryptographic capability shall be based on Technical Implementation Guidance on Cryptographic Mechanisms in Support of Cryptographic Services [NAC AC/322-D(2012)0022, 2012].
- (3) The XLG public key cryptographic capability shall be compliant in accordance with NATO-approved methods for key management (i.e. generation, access, distribution, destruction, handling, and storage of keys), and for cryptographic operations (i.e. encryption, decryption, signature, hashing, key exchange, and random-number-generation services) as described in the CIS Security Technical and Implementation Guidance in Support of Public Key Infrastructure – Cryptographic Aspects [NAC AC/322-D(2007)0002-REV1, 2015].
- (4) The XLG public key cryptographic capability shall be compliant with NPKE Certificate Policy [NAC AC/322-D(2004)0024-REV3, 2018] and [NAC AC/322-D (2007)0002-REV1, 2015].
- (5) The XLG public key cryptographic capability shall support the validation and generation of XML digital signatures based on XMLDSIG Core Validation [W3C XMLDSIG-CORE, 2008].
- (6) The XLG public key cryptographic capability shall be compliant with “XML Signature Cryptographic Artefact Profile” in ADatP-4778 for generating and validating digital and keyed-hash message authentication code signatures.
- (7) The XLG public key cryptographic capability shall be compliant with Transport Layer Security (TLS, [IETF RFC 5246, 2008]) for providing privacy and data integrity between two communicating HTTP applications.
- (8) The XLG public key cryptographic capability shall provide configuration for permitted cipher suites to be negotiated and used between two communicating HTTP applications.
- (9) The XLG public key cryptographic capability shall not fallback to cipher suites not

configured for use in establishing a TLS connection between two communicating HTTP applications.

- (10) The XLG public key cryptographic capability shall build a certificate path from a trusted certificate authority (CA) to each TLS server certificate, and each server certificate shall match the Fully Qualified Domain Name of the server and be valid.
- (11) The XLG shall provide a capability to manage public key material.
 - a) [Intentionally Blank]
 - b) The XLG shall provide capability to import and store key material.
 - c) The XLG shall provide capability to import, remove, and update X.509 v3 certificates.
 - d) The XLG shall provide capability to import, remove, and update X.509 v2 certificate revocation lists (CRL).
 - e) The XLG shall support configuration of different public key material for multiple HTTP endpoints.
- (12) The XLG public key cryptographic capability shall be configurable to retrieve certificates and CRLs.
- (13) The XLG public key cryptographic capability shall be configurable to check the status of certificates against CRLs in accordance with the NPKI Certificate Policy [NAC AC/322-D(2004)0024-REV3, 2018].
- (14) The XLG public key cryptography capability shall build certificate paths for all certificates using configured trust anchors.
- (15) The XLG public key cryptographic capability shall validate and verify public key material compliant with NPKI Certificate Policy [NAC AC/322-D(2004)0024-REV3, 2018].
- (16) [Intentionally Blank]

[212] The XLG shall provide a management capability.

- (1) The XLG shall provide a physical network interface providing Ethernet connectivity to facilitate local and remote management by the NCI Agency's Gateway Security Services team from the high domain, or a separate management domain.
- (2) The XLG management capability shall provide support for multiple concurrent users with access control to enable multiple operators to simultaneously access the management capability from potentially distributed consoles with appropriately administered levels of access.
- (3) The XLG management capability shall support a management interface over HyperText Transport Protocol (HTTP) [IETF RFC 7230, 2014] with Transport Layer Security (TLS, [IETF RFC 5246, 2008]).

- (4) The XLG shall be capable of being managed locally.
- (5) The XLG management capability shall support the following capabilities:
 - a) [Intentionally Blank]
 - b) Network connections management
 - c) Information flow control policy enforcement management
 - (i) HTTP entity-header vetting configuration
 - (ii) HTTP entity-body configuration
 - (iii) Rules configuration
 - d) Content inspection policy enforcement management
 - (i) Content filter configuration
 - (ii) XML schema configuration
 - (iii) Rules configuration
 - e) Security labelling policy management
 - (i) Security labelling policy configuration
 - (ii) Confidentiality clearance configuration
 - (iii) Rules configuration
 - f) Public key management
 - (i) Certificate and CRL configuration
 - (ii) [Intentionally Blank]
 - g) [Intentionally Blank]
 - h) The XLG management capability shall provide the functionality to change, capture, duplicate, backup, and restore the configuration of the XLG.
- (6) The XLG management capability shall be based on customizable (pre-loaded) configuration templates (e.g. XML schemas are pre-installed) in support of common information exchange scenarios that incorporate:
 - a) Confidentiality protection of resources in the high domain enhanced by providing TLS connectivity, HTTP entity-header vetting, and label-based access control before releasing the resources to the low domain.
 - b) Integrity and availability protection of resources in the high domain enhanced by providing TLS connectivity, HTTP entity-header vetting, and HTTP entity-body validation on transfer of HTTP messages received from the low domain.
- (7) The XLG management capability shall provide a graphical user interface. However, configuration management using files shall still be possible.
- (8) [Intentionally Blank]

[213] The XLG shall support the following capacity requirements:

- (1) The XLG shall support the concurrent processing of high to low and low to high traffic and meet the performance objectives for both traffic flows.
- (2) The XLG shall support the concurrent execution of high to low and low to high policy enforcement and meet the performance objectives for each.
- (3) The XLG shall be capable of handling at least 100 concurrent receive connections and 100 concurrent send side connections for both traffic flows (high to low and low to high).
- (4) [Intentionally Blank].
- (5) The XLG shall allow system management functions to be performed regardless of the load on the XLG.
- (6) The XLG shall support the information exchange of HTTP messages with body size up to 1.5 GB.
- (7) The XLG shall support parallel processing of HTTP messages, i.e. it SHALL be possible for the XLG to subject multiple different HTTP messages to policy enforcement at the same time.

[214] The XLG shall support the following performance requirements:

- (1) The XLG shall be capable to support a continuous normal load without degradation in performance based on the following message size categories:
 - a) Very small HTTP messages: 1000 HTTP messages per minute with average message size 15 KB.
 - b) Small HTTP messages: 90 HTTP messages per minute with average message size 5 MB.
 - c) Medium HTTP messages: 15 HTTP messages per minute with average message size 30 MB.
 - d) Large HTTP messages: 5 HTTP messages per minute with average message size 300 MB.
 - e) Very large HTTP messages: 1 HTTP messages per minute with average message size 1 GB.
- (2) The XLG shall be capable to support a continuous message processing time under normal load without degradation in performance based on the following message size categories:
 - a) Very small HTTP messages: < 500 milliseconds.
 - b) Small HTTP messages: < 7500 milliseconds.
 - c) Medium HTTP messages: < 45000 milliseconds.
 - d) Large HTTP messages: < 90000 milliseconds.

- e) Very large HTTP messages: < 300000 milliseconds.
- (3) If an HTTP message is processed by the XLG that is too large for the category 'Very large HTTP messages', the XLG:
 - a) Shall continue to operate;
 - b) [Intentionally Blank];
 - c) Shall be responsive to commands issued by a System Administrator;
 - d) [Intentionally Blank];
 - e) May terminate the processing of the HTTP message in order to do so.
- (4) In the case that an increased load is experienced over the normal load the XLG:
 - a) Shall continue to operate;
 - b) [Intentionally Blank];
 - c) Shall be responsive to commands issued by a System Administrator;
 - d) [Intentionally Blank];
 - e) Shall failsafe and MAY reject HTTP traffic; and,
 - f) Shall recover to normal load as soon as feasible with a minimum decrease in capacity and performance requirements under peak load.
- (5) The impact of logging by the XLG on its performance shall remain within the following limits, for the following log severity levels [RFC 5424]:
 - a) For severity levels 'Emergency' (0), 'Alert' (1), 'Critical' (2), 'Error' (3), 'Warning' (4): no impact on performance;
 - b) For severity levels 'Notice' (5) and 'Informational' (6): a decrease in throughput of at most 40%.
 - c) For severity level 'Debug' (7): a decrease in throughput of at most 60%.

[215] [Intentionally Blank]

[216] The XLG shall support the following usability requirements:

- (1) The XLG shall have a high degree of learnability, making it very easy to use for System Administrators even the first time.

[217] The XLG shall support the following reliability requirements:

- (1) The XLG shall, despite the presence of hardware or software faults in part of the XLG, continue to perform the unaffected XLG functions.
- (2) The XLG shall gracefully degrade in the condition where any dependent services and components are not available and notify the user for the limited functionality. Upon restoration of services, the XLG shall become fully operational.
- (3) The XLG shall support recovery from backup and archive data to a stable

(consistent) state with no data loss.

- (4) The XLG shall provide authorised users with the ability to perform full and incremental backups of the XLG's data and software without impacting system availability.

[218] The XLG shall be capable of being updated by an administrator on a regular basis in response to the release of product updates (firmware and hardware) due to known vulnerabilities.

[219] The XLG shall support the following portability requirements:

- (1) A XLG System Administrator shall be able to successfully deploy (i.e., install and configure) the XLG within a time frame of one (1) working days after receiving a maximum of five (5) days of training.
- (2) All software and documentation to be provided shall be in English (US) version.
- (3) [Intentionally Blank]

[220] The XLG shall support the following survivability requirements:

- (1) The XLG shall automatically detect the availability and re-establishment of network connectivity.
- (2) For redundancy purposes the XLG shall be capable of supporting failover between two instances of a XLG.
- (3) The XLG shall not be a single point of failure for the interconnection between the high and low domains.

[221] The XLG shall support the following environment requirements:

- (1) The XLG equipment shall not be damaged nor suffer loss of data, when any of the ambient temperature and humidity conditions contravene operating limits while power is available.
- (2) The XLG support staff shall be able to manually resume normal operation of the XLG equipment within five (5) minutes from when ambient temperature and humidity conditions return to within operating limits.

[222] The XLG shall provide a capability to generate, view, manage, archive, classify and protect audit logs for system events.

[223] The XLG shall provide the capability to generate, view, manage, archive, classify and protect audit logs for policy enforcement events.

[224] [Intentionally Blank]

[225] The XLG shall be evaluated to Common Criteria (CC) Evaluation Assurance Level (EAL) 4+ or national equivalent by time of KFOR PSA.

[226] [Intentionally Blank]

3.8.4 Migration

[227] The Contractor shall provide Engineering Support to migrate equipment, services, users, and data from the existing environment to the new environment.

Annex A Hardware and Software Requirements

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A.1 Hardware and software Requirements

A.1.1 Routers

A.1.1.1 Router Large

[1] The large router shall feature the following specifications:

- (1) A minimum of 2Gbps of router throughput
- (2) A minimum of six interfaces capable of 1Gbps operation with different media types (SFP-based)
- (3) Redundant power supplies
- (4) A minimum of 4GB of DRAM memory
- (5) A minimum of 8GB of Flash
- (6) Capable of performing IPSEC encryption up to the router throughput data rates of 1Gbps
- (7) Support the industry High Availability features
- (8) Support for multi-mode and single-mode fiber SFP modules
- (9) support for link aggregation techniques for the uplink connections
- (10) Support for virtualization techniques (VRF)
- (11) Vendors support contract must be included

[2] The NU data router platform for HQ meeting the above requirements is a Cisco ISR4451-X

#	PID	Minimum Requirements	Qty
1)	ISR4451-X-K9	Cisco ISR 4451 Sec Bundle, w/SEC license	1
2)	CON-SSSNT-ISR45XK9	CON-SSSNT-ISR45XK9 SOLN SUPP 8X5XNBD Cisco ISR 4451	1
3)	SL-44-IPB-K9	IP Base License for Cisco ISR 4400 Series	1
4)	FL-44-PERF-K9	Performance on Demand License for 4400 Series	1
5)	NIM-ES2-8	8-port Layer 2 GE Switch Network Interface Module	1
6)	PWR-4450-AC	AC Power Supply for Cisco ISR 4450 and ISR4350	1
7)	PWR-4450-AC/2	AC Power Supply (Secondary PS) for Cisco ISR 4450	1
8)	CAB-ACE	AC Power Cord (Europe), C13, CEE 7, 1.5M	2
9)	MEM-44-4G	4G DRAM (1 x 4G) for Cisco ISR 4400	1
10)	MEM-FLSH-8G	8G eUSB Flash Memory for Cisco ISR 4430	1
11)	POE-COVER-4450	Cover for empty POE slot on Cisco ISR 4450	2
12)	MEM-4400-DP-2G	2G DRAM (1 DIMM) for Cisco ISR 4400 Data Plane	1
13)	NIM-BLANK	Blank faceplate for NIM slot on Cisco ISR 4400	1
14)	SM-S-BLANK	Removable faceplate for SM slot on Cisco 2900,3900,4400 ISR	2
15)	SISR4400UK9-166	Cisco ISR 4400 Series IOS XE Universal	1

A.1.1.2 Router Small

[3] The small router shall feature the following specifications:

- (1) A minimum of 1Gbps of router throughput
- (2) A minimum of four interfaces capable of 1Gbps operation with different media types
- (3) Redundant power supplies
- (4) A minimum of 4GB of DRAM memory
- (5) A minimum of 8GB of Flash
- (6) Support the industry High Availability features
- (7) Support for multi-mode and single-mode fiber SFP modules
- (8) support for link aggregation techniques for the uplink connections
- (9) Support for virtualization techniques (VRF)
- (10) Vendors support contract must be included

[4] The small router platform meeting the requirements is a Cisco ISR4431

#	PID	Minimum Requirements	Qty
1)	ISR443/K9	Cisco ISR 4431	1
2)	CON-SSSNT-ISR4431	SOLN SUPP 8X5XNBD Cisco ISR 4431	1
3)	SL-44-IPB-K9	IP Base License for Cisco ISR 4400 Series	1
4)	FL-44-PERF-K9	Performance on Demand License for 4400 Series	1
5)	NIM-ES2-8	8-port Layer 2 GE Switch Network Interface Module	1
6)	PWR-4430-AC	AC Power Supply for Cisco ISR 4430	1
7)	PWR-4430-AC/2	AC Power Supply (Secondary PS) for Cisco ISR 4430	1
8)	CAB-C13-C14-2M	Power Cord Jumper, C13-C14 Connectors, 2 Meter Length	2
9)	MEM-44-4G	4G DRAM (1 x 4G) for Cisco ISR 4400	1
10)	MEM-FLSH-8G	8G eUSB Flash Memory for Cisco ISR 4430	1
11)	MEM-4400-DP-2G	2G DRAM (1 DIMM) for Cisco ISR 4400 Data Plane	1
12)	NIM-BLANK	Blank faceplate for NIM slot on Cisco ISR 4400	2
13)	SISR4400UK9-166	Cisco ISR 4400 Series IOS XE Universal	1
14)	TPST	Certified and provided with SDIP-27 Level B/C TEMPEST Certificate (As indicated in RFQ Bidding Sheet/SSS).	1

A.1.1.3 Router large PVDM module

[5] The large routers for voice&video need to be equipped with a PVDM card to support the required voice operations. This goal is achieved by installation of the following components and the installation needs to be carried out by the Contractor:

#	PID	Minimum Requirements	Qty
1)	PVDM-4-256	256-channel DSP module	1

A.1.1.4 Router small PVDM module

- [6] The small routers for voice&video need to be equipped with a PVDM card to support the required voice operations. This goal is achieved by installation of the following components and the installation needs to be carried out by the Contractor:

#	PID	Minimum Requirements	Qty
	PVDM-4-128	128-channel DSP module	1

A.1.1.5 Router large E1 card

- [7] The large NU router for voice&video needs to be equipped with additional E1-card to support the required voice operations. This goal is achieved by installation of the following components and the installation needs to be carried out by the Contractor:

#	PID	Minimum Requirements	Qty
2)	NIM-2MFT-T1/E1	2 port Multiflex Trunk Voice/Clear-channel Data T1/E1 Module	1

A.1.1.6 Router small E1 card

- [8] The new NU routers for voice&video need to be equipped with additional hardware to support the required voice operations. This goal is achieved by installation of the following components and the installation needs to be carried out by the Contractor:

#	PID	Minimum Requirements	Qty
3)	NIM-2MFT-T1/E1	2 port Multiflex Trunk Voice/Clear-channel Data T1/E1 Module	1

A.1.1.7 Router License for IPSEC encryption

- [9] The new NU routers, both for data and the voice&video, need to be able to perform high-speed IPSEC encryption operations. This goal is achieved by installation of the following license and it needs to be carried out by the contractor:

#	PID	Minimum Requirements	Qty
4)	SL-44-SEC-K9	Security License for Cisco ISR 4400 Series	1
5)	FL-44-HSEC-K9	U.S. Export Restriction Compliance license for 4400 series	1

A.1.1.8 Router License for Collaboration

- [10] The new routers for voice&video, need to be able to support collaboration features (Unified Communications). This goal is achieved by installation of the following license and it needs to be carried out by the contractor:

#	PID	Minimum Requirements	Qty
6)	SL-44-UC-K9	Unified Communication License for Cisco ISR 4400 Series	1

A.1.1.9 Router License for SRST

[11] The new NU routers for voice&video need to be equipped with additional hardware to support the required voice operations. This goal is achieved by installation of the following components and the installation needs to be carried out by the Contractor:

#	PID	Minimum Requirements	Qty
7)	SRST-EP	Cisco SRST – 1 SRST Endpoint License (EDelivery Smart)	1

A.1.2 Data Center Switches

A.1.2.1 Data Center Switch

[12] The Data Center SFP switch shall meet the following minimum requirements :

- (1) Switching capacity up to 2.56Tbps
- (2) A minimum of thirty two interfaces capable of 10/40 Gbps operation with different media types (QSFP+)
- (3) Redundant hot-swappable power supplies
- (4) Support the industry High Availability features (VRRP)
- (5) Support for multi-mode and single-mode fiber QSFP+ modules
- (6) Support for link aggregation techniques (LACP)
- (7) Support for Virtual Extensible LAN (VXLAN)
- (8) Support for BGP routing
- (9) Vendors support contract must be included

[13] The Data Center switch platform meeting the above requirements is a **Dell S5232F-ON**

#	Description	Qty
1)	Dell Networking S5232F-ON, 1U, 32xQSFP28, 2xSFP+, 2x AC PSUs, IO to PSU Airflow, OS9	1
2)	Dell Networking, Transceiver, 40GbE QSFP+ SR4, MTP, MMF	2
3)	Dell Networking, Transceiver, 40GbE QSFP+ LR4, MTP, SMF	2
4)	Power Cord, PDU (Rack)	1
5)	OS9 installed on S5232F-ON, with entitlement to OS10 Enterprise	1
6)	Software, Rights to use L3, S5232F-ON	1
7)	S5232F-ON User Documentation EMEA	1
8)	Base Warranty	1
9)	1Yr Return to Depot - Minimum Warranty	1
10)	90 Day SW Bug Fixes Support Media Replacement	1
11)	3Yr ProSupport and 4hr Mission Critical	1

Disclaimer: Lines 2 and 3 present different QSPF+ solution options for the inter-switch connectivity and are given here for

the reference purposes. Different combinations of these might be required depending on the local requirements

A.1.2.2 Data Center Top-of-Rack (TOR) switch

[14] The Data Center Top-of-Rack switch and shall meet the following minimum requirements :

- (1) Switching capacity up to 2Tbps
- (2) A minimum of forty eight interfaces capable of 10 Gbps operation (SFP+)
- (3) A minimum of six uplink interfaces capable of 40 operation (QSFP+)
- (4) Reduntant hot-swappable power supplies
- (5) Support the industry High Availability features (VRRP)
- (6) Support for multi-mode and single-mode fiber and 10GBASE-T SFP+ modules
- (7) Support for link aggregation techniques (LACP)
- (8) Support for Virtual Extensible LAN (VXLAN)
- (9) Support for BGP routing
- (10) Vendors support contract must be included

[15] The Data Center Top-of-Rack platform meeting the above requirements is a **Dell S4148F-ON**

#	Product Description	Qty
1)	Dell Networking S4148-ON, 48xSFP+, 2xQSFP28, 4x QSFP+ ports,IO to PSU air, 1x AC PSUs, DNOS9	1
2)	Power Cord, PDU (Rack)	1
3)	Power Supply, AC, 460w, IO to PSU airflow, S4148F-ON	1
4)	Dell Networking, Tranceiver, 10Gbe SFP+, 10GBASE-T, Copper	24
5)	Dell Networking, Cable, QSFP+ to QSFP+, 40GbE Passive Copper Direct Attach Cable, 3 m	2
6)	Dell Networking, Transceiver, 40GbE QSFP+ SR4, MTP, MMF	2
7)	Dell Networking, Transceiver, 40GbE QSFP+ LR4, MTP, SMF	2
8)	OS9 installed on S4148-ON, with entitlement to OS10 Enterprise	1
9)	Base Warranty	1
10)	1Yr Return to Depot - Minimum Warranty	1
11)	90 Day SW Bug Fixes Support Media Replacement	1
12)	3Yr ProSupport and 4Hr Mission Critical	1

Disclaimer: Lines 3,4,5 and 6 present different QSPF+ solution options for the inter-switch connectivity and are given here for the reference purposes. Different combinations of these might be required depending on the local requirements

A.1.3 LAN switches

A.1.3.1 Core Switch

[16] The Core switch shall meet the following minimum requirements :

- (1) Switching capacity up to 2Tbps
- (2) A minimum of twenty four interfaces capable of 10/25 Gbps operation with different media types (SFP+/SFP28)
- (3) A minimum of four uplink interfaces capable of 40/100Gbps operation (QSFP+/QSFP28)
- (4) Redundant power supplies
- (5) A minimum of 16GB of DRAM memory
- (6) A minimum of 16GB of Flash
- (7) Support the industry High Availability features
- (8) Support for multi-mode and single-mode fiber SFP modules
- (9) Support for link aggregation techniques for the uplink connections
- (10) Support for virtual-stacking features
- (11) Vendors support contract must be included

[17] The LAN Core switch platform meeting the above requirements is a Cisco Catalyst C9500-24YC4C-A

#	PID	Description	Qty
1)	C9500-24Y4C-A	Catalyst 9500 24x1/10/25G and 4-port 40/100G, Advantage	1
2)	CON-SSSNT-C95024YA	SOLN SUPP 8X5XNBD Catalyst 9500 24-port 25/100G only, Adva	1
3)	C9500-NW-A	C9500 Network Stack, Advantage	1
4)	S9500UK9-169	UNIVERSAL	1
5)	C9K-PWR-650WAC-R	650W AC Config 4 Power Supply front to back cooling	1
6)	C9K-PWR-650WAC-R/2	650W AC Config 4 Power Supply front to back cooling	1
7)	CAB-C13-C14-AC	Power cord, C13 to C14 (recessed receptacle), 10A	2
8)	C9K-F1-SSD-BLANK	Cisco pluggable SSD storage	1
9)	C9K-T1-FANTRAY	Catalyst 9500 Type 4 front to back cooling Fan	2
10)	C9500-DNA-24Y4C-A	C9500 DNA Advantage, Term License	1
11)	C9500-DNA-L-A-5Y	DNA Advantage 5 Year License	1
12)	PI-LFAS-T	Prime Infrastructure Lifecycle & Assurance Term - Smart Lic	3
13)	PI-LFAS-AP-T-5Y	PI Dev Lic for Lifecycle & Assurance Term 5Y	3
14)	NETWORK-PNP-LIC	Network Plug-n-Play Connect for zero-touch device deployment	1
15)	TPST	Certified and provided with SDIP-27 Level B/C TEMPEST Certificate (As indicated in RFQ Bidding Sheet/SSS).	1

A.1.3.2 Access Switch Large (SFP)

[18] The large access switch for NS and MS shall meet the following minimum requirements:

- (1) Switching capacity up to 480Gbps
- (2) A minimum of forty eight SFP-based interfaces capable of 1 Gbps operation with different media types
- (3) A minimum of two uplink ports capable of 10Gbps operation with different media types
- (4) Redundant power supplies
- (5) A minimum of 8GB of DRAM memory
- (6) A minimum of 16GB of Flash
- (7) Support the industry High Availability features
- (8) Support for multi-mode and single-mode fiber SFP modules
- (9) Support for link aggregation techniques for the uplink connections
- (10) Support for stacking features
- (11) Vendors support contract must be included
- (12) Devices need to be tempest tested

[19] The large access switch for NS and MS meeting the requirement is a Cisco Catalyst C9300-48S-E

#	PID	Description	Qty
1)	C9300-48S-E	Catalyst 9300 48 GE SFP Ports, modular uplink Switch	1
2)	CON-SSSNT-C930048S	SOLN SUPP 8X5XNBD Catalyst 9300 48 GE SFP Ports, modular u	1
3)	C9300-NW-E-48	C9300 Network Essentials, 48-port license	1
4)	PWR-C1-715WAC-P	715W AC 80+ platinum Config 1 Power Supply	1
5)	PWR-C1-715WAC-P/2	715W AC 80+ platinum Config 1 SecondaryPower Supply	1
6)	CAB-TA-EU	Europe AC Type A Power Cable	2
7)	C9300-NM-8X	Catalyst 9300 8 x 10GE Network Module	1
8)	CAB-SPWR-150CM	Catalyst Stack Power Cable 150 CM - Upgrade	1
9)	S9300UK9-1612	Cisco Catalyst 9300 XE 16.12 UNIVERSAL	1
10)	STACK-T1-3M	3M Type 1 Stacking Cable	1
11)	C9300-DNA-E-48S	C9300 DNA Essentials, 48-Port Fiber Term Licenses	1
12)	C9300-DNA-E-48S-5Y	C9300 DNA Essentials, 48-port Fiber, 5 Year Term License	1
13)	GLC-SX-MMD	1000BaseSX multimode transceiver module	24
14)	NETWORK-PNP-LIC	Network Plug-n-Play Connect for zero-touch device deployment	1

[20] Additionally, the switch delivery should be complemented with the patch-cables in a number equal to the quantity of Multi-mode SFPs(24) (line 13 in the list above)

VALUE FO 50/125 LC/LC OM3 3m	24
------------------------------	----

A.1.3.3 Access Switch Small (SFP)

[21] The small access switch for NS and MS shall meet the following minimum requirements (Cisco Catalyst 9300-24S-E):

- (1) Switching capacity up to 480Gbps
- (2) A minimum of twenty four SFP-based interfaces capable of 1 Gbps operation with different media types
- (3) A minimum of two uplink ports capable of 10Gbps operation with different media types
- (4) Redundant power supplies
- (5) A minimum of 8GB of DRAM memory
- (6) A minimum of 16GB of Flash
- (7) Support the industry High Availability features
- (8) Support for multi-mode and single-mode fiber SFP modules
- (9) Support for link aggregation techniques for the uplink connections
- (10) Support for stacking features
- (11) Vendors support contract must be included
- (12) Devices need to be tempest tested

[22] The small access switch for NS and MS meeting the requirement is a Cisco Catalyst C9300-24S-E

#	PID	Description	Qty
1)	C9300-24S-E	Catalyst 9300 24 GE SFP Ports, modular uplink Switch	1
2)	CON-SSSNT-C930024E	SOLN SUPP 8X5XNBD Catalyst 9300 24 GE SFP Ports, modular u	1
3)	C9300-NW-E-24	C9300 Network Essentials, 24-port license	1
4)	S9300UK9-1612	Cisco Catalyst 9300 XE 16.12 UNIVERSAL	1
5)	PWR-C1-715WAC-P	715W AC 80+ platinum Config 1 Power Supply	1
6)	PWR-C1-715WAC-P/2	715W AC 80+ platinum Config 1 SecondaryPower Supply	1
7)	CAB-C15-CBN	Cabinet Jumper Power Cord, 250 VAC 13A, C14-C15 Connectors	2
8)	C9300-NM-8X	Catalyst 9300 8 x 10GE Network Module	1
9)	STACK-T1-3M	3M Type 1 Stacking Cable	1
10)	CAB-SPWR-150CM	Catalyst Stack Power Cable 150 CM - Upgrade	1
11)	C9300-DNA-E-24S	C9300 DNA Essentials, 24-Port Fiber Term Licenses	1
12)	C9300-DNA-E-24S-5Y	C9300 DNA Essentials, 24-Port Fiber, 5 Year Term License	1
13)	GLC-SX-MMD	1000BaseSX multimode transceiver module	12
14)	NETWORK-PNP-LIC	Network Plug-n-Play Connect for zero-touch device deployment	1
15)	TPST	Certified and provided with SDIP-27 Level B/C TEMPEST Certificate (As indicated in RFQ Bidding Sheet/SSS).	1

[23] Additionally, the switch delivery should be complemented with the patch-cables in a number equal to

the quantity of Multi-mode SPF(12) (line 13 in the list above)

VALUE FO 50/125 LC/LC OM3 3m	12
------------------------------	----

A.1.3.4 Access Switch Large (UTP)

[24] The large access switch for NS and MS shall meet the following minimum requirements:

- (1) Switching capacity up to 480Gbps
- (2) A minimum of forty eight copper-based interfaces capable of 1 Gbps operation
- (3) A minimum of two uplink ports capable of 10Gbps operation with different media types
- (4) Redundant power supplies
- (5) A minimum of 8GB of DRAM memory
- (6) A minimum of 16GB of Flash
- (7) Support the industry High Availability features
- (8) Support for multi-mode and single-mode fiber SFP modules
- (9) Support for link aggregation techniques for the uplink connections
- (10) Support for stacking features
- (11) Half of available SFP ports have to be populated with 1000BaseSX capable modules
- (12) Vendors support contract must be included

[25] The LAN access switch platform is a Cisco Catalyst C9300-48T-E

#	PID	Description	Qty
1)	C9300-48T-E	Catalyst 9300 48-port data only, Network Essentials	1
2)	CON-SSNT-C930048E	SOLN SUPP 8X5XNBD Catalyst 9300 48-port data only, Network	1
3)	C9300-NW-E-48	C9300 Network Essentials, 48-port license	1
4)	S9300UK9-1612	Cisco Catalyst 9300 XE 16.12 UNIVERSAL	1
5)	PWR-C1-350WAC-P	350W AC 80+ platinum Config 1 Power Supply	1
6)	PWR-C1-350WAC-P/2	350W AC 80+ platinum Config 1 Secondary Power Supply	1
7)	CAB-TA-EU	Europe AC Type A Power Cable	2
8)	STACK-T1-50CM	50CM Type 1 Stacking Cable	1
9)	CAB-SPWR-30CM	Catalyst Stack Power Cable 30 CM	1
10)	C9300-DNA-E-48	C9300 DNA Essentials, 48-Port Term Licenses	1
11)	C9300-DNA-E-48-5Y	C9300 DNA Essentials, 48-port - 5 Year Term License	1
12)	C9300-NM-8X	Catalyst 9300 8 x 10GE Network Module	1
13)	NETWORK-PNP-LIC	Network Plug-n-Play Connect for zero-touch device deployment	1

A.1.3.5 Access Switch Small (UTP)

[26] The small access switch for NU shall meet the following minimum :

- (1) Switching capacity up to 480Gbps
- (2) A minimum of twenty four copper-based interfaces capable of 1 Gbps operation
- (3) A minimum of two uplink ports capable of 10Gbps operation with different media types
- (4) Redundant power supplies
- (5) A minimum of 8GB of DRAM memory
- (6) A minimum of 16GB of Flash
- (7) Support the industry High Availability features
- (8) Support for multi-mode and single-mode fiber SFP modules
- (9) Support for link aggregation techniques for the uplink connections
- (10) Support for stacking features
- (11) Half of available SFP ports have to be populated with 1000BaseSX capable modules
- (12) Vendors support contract must be included

[27] The small access switch platform meeting the above requirements is a Cisco Catalyst C9300-24T-E

#	PID	Description	Qty
14)	C9300-24T-E	Catalyst 9300 24-port data only, Network Essentials	1
15)	CON-SSSNT-C93002TE	SOLN SUPP 8X5XNBD Catalyst 9300 24-port data only, Network	1
16)	C9300-NW-E-24	C9300 Network Essentials, 24-port license	1
17)	S9300UK9-1612	Cisco Catalyst 9300 XE 16.12 UNIVERSAL	1
18)	PWR-C1-350WAC-P	350W AC 80+ platinum Config 1 Power Supply	1
19)	PWR-C1-350WAC-P/2	350W AC 80+ platinum Config 1 Secondary Power Supply	1
20)	CAB-TA-EU	Europe AC Type A Power Cable	2
21)	STACK-T1-50CM	50CM Type 1 Stacking Cable	1
22)	CAB-SPWR-30CM	Catalyst Stack Power Cable 30 CM	1
23)	C9300-DNA-E-24	C9300 DNA Essentials, 24-Port Term Licenses	1
24)	C9300-DNA-E-24-5Y	C9300 DNA Essentials, 24-Port, 5 Year Term License	1
25)	C9300-NM-8X	Catalyst 9300 8 x 10GE Network Module	1
26)	NETWORK-PNP-LIC	Network Plug-n-Play Connect for zero-touch device deployment	1

A.1.3.6 Access Switch Large (PoE)

[28] The large access switch for NU PoE shall meet the following minimum requirements

- (1) Switching capacity up to 480Gbps
- (2) A minimum of forty eight copper-based interfaces capable of 1 Gbps operation and providing PoE power of at least 15.4W per port
- (3) A minimum of two uplink ports capable of 10Gbps operation with different media types
- (4) Redundant power supplies
- (5) A minimum of 8GB of DRAM memory
- (6) A minimum of 16GB of Flash
- (7) Support the industry High Availability features
- (8) Support for multi-mode and single-mode fiber SFP modules
- (9) Support for link aggregation techniques for the uplink connections
- (10) Support for stacking features
- (11) Vendors support contract must be included

[29] The large PoE switch platform is a Cisco Catalyst 9300-48P-E

#	PID	Description	Qty
1)	C9300-48P-E	Catalyst 9300 48-port PoE+, Network Essentials	1
2)	CON-SSSNT-C93004PE	SOLN SUPP 8X5XNBD Catalyst 9300 48-port PoE+, Network Esse	1
3)	C9300-NW-E-48	C9300 Network Essentials, 48-port license	1
4)	S9300UK9-169	UNIVERSAL	1
5)	PWR-C1-715WAC-P	715W AC 80+ platinum Config 1 Power Supply	1
6)	CAB-TA-EU	Europe AC Type A Power Cable	2
7)	PWR-C1-715WAC-P/2	715W AC 80+ platinum Config 1 SecondaryPower Supply	1
8)	STACK-T1-50CM	50CM Type 1 Stacking Cable	1
9)	CAB-SPWR-30CM	Catalyst Stack Power Cable 30 CM	1
10)	C9300-DNA-E-48	C9300 DNA Essentials, 48-Port Term Licenses	1
11)	C9300-DNA-E-48-5Y	C9300 DNA Essentials, 48-port - 5 Year Term License	1
12)	C9300-NM-8X	Catalyst 9300 8 x 10GE Network Module	1
13)	NETWORK-PNP-LIC	Network Plug-n-Play Connect for zero-touch device deployment	1

A.1.3.7 Access Switch Small (PoE)

[30] The small PoE switch for NU V2 shall meet the following minimum requirements:

- (1) Switching capacity up to 480Gbps
- (2) A minimum of twenty four copper-based interfaces capable of 1 Gbps operation and providing PoE power of at least 15.4W per port
- (3) A minimum of two uplink ports capable of 10Gbps operation with different media types
- (4) Redundant power supplies
- (5) A minimum of 8GB of DRAM memory
- (6) A minimum of 16GB of Flash
- (7) Support the industry High Availability features (
- (8) Support for multi-mode and single-mode fiber SFP modules
- (9) Support for link aggregation techniques for the uplink connections
- (10) Support for stacking features
- (11) Vendors support contract must be included

[31] The large PoE switch platform meeting the above requirements a Cisco Catalyst 9300-24P-E

#	PID	Description	Qty
1)	C9300-24P-E	Catalyst 9300 24-port PoE+, Network Essentials	1
2)	CON-SSSNT-C93002PE	SOLN SUPP 8X5XNBD Catalyst 9300 24-port PoE+, Network Esse	1
3)	C9300-NW-E-24	C9300 Network Essentials, 24-port license	1
4)	S9300UK9-169	UNIVERSAL	1
5)	PWR-C1-715WAC-P	715W AC 80+ platinum Config 1 Power Supply	1
6)	CAB-TA-EU	Europe AC Type A Power Cable	2
7)	PWR-C1-715WAC-P/2	715W AC 80+ platinum Config 1 SecondaryPower Supply	1
8)	STACK-T1-50CM	50CM Type 1 Stacking Cable	1
9)	CAB-SPWR-30CM	Catalyst Stack Power Cable 30 CM	1
10)	C9300-DNA-E-24	C9300 DNA Essentials, 24-Port Term Licenses	1
11)	C9300-DNA-E-24-5Y	C9300 DNA Essentials, 24-Port, 5 Year Term License	1
12)	C9300-NM-8X	Catalyst 9300 8 x 10GE Network Module	1
13)	NETWORK-PNP-LIC	Network Plug-n-Play Connect for zero-touch device deployment	1

A.1.4 Analogue Voice Gateway

A.1.4.1 Analogue Voice Gateway (large)

[32] The large Analog Voice Gateway platform is a Cisco VG450-144FX

#	PID	Description	Qty
1)	VG450-144FXS/K9	Cisco VG450 144 FXS Bundle	1
2)	CON-SSSNT-VG45XK14	SOLN SUPP 8X5XNBD Cisco VG450 144 FXS Bundle	1
3)	CAB-CONSOLE-USB	Console Cable 6ft with USB Type A and mini-B	1
4)	CAB-CONSOLE-RJ45	Console Cable 6ft with RJ45 and DB9F	1
5)	SL-44-IPB-K9	IP Base License for Cisco ISR 4400 Series	1
6)	SL-VG450-UC-K9	Unified Communication License for VG450 Series	1
7)	MEM-4460-16G	16G DRAM (1 DIMM) for Cisco ISR 4461	1
8)	MEM-FLSH-8U16G	8G to 16G eUSB Flash Memory Upgrade for Cisco ISR 4430	1
9)	ACS-4460-FANASSY	Cisco ISR 4460 Fan Assembly	1
10)	MEM-4460-DP-4G	4G DRAM for Cisco ISR 4460 Data Plane	1
11)	POE-COVER-4450	Cover for empty POE slot on Cisco ISR 4450	2
12)	NIM-BLANK	Blank faceplate for NIM slot on Cisco ISR 4400	3
13)	PWR-4460-650-AC2	Redundant 650W AC Power Supply for Cisco ISR 4461	1
14)	CAB-ACE	AC Power Cord (Europe), C13, CEE 7, 1.5M	2
15)	PWR-4460-650-AC	650W AC Power Supply for Cisco ISR 4461	1
16)	SVG450UK9-1610	Cisco VG450 Series IOS XE UNIVERSAL	1
17)	SM-X-72FXS	Fixed Port High Density Analog Voice ServiceModule for ISR4K	2
18)	Gigaset DA-710	Gigaset DA-710 Analog phone	25

A.1.4.2 Analogue Voice Gateway (medium)

[33] The large Analog Voice Gateway platform is a Cisco VG320

#	PID	Description	Qty
1)	VG320	Modular 48 FXS Port VoIP Gateway with PVDM3-128	1
2)	CON-SSSNT-VG320ICV	SOLN SUPP 8X5XNBD Modular 48 FXS Port VoIP Gateway with PVDM	1
3)	SVG3XUK9-15603M	Cisco VG3X0 UNIVERSAL	1
4)	MEM-CF-256U4GB	256MB to 4GB Compact Flash Upgrade for Cisco 1900,2900,3900	1
5)	PVDM3-128U256	PVDM3 128-channel to 256-channel factory upgrade	1
6)	CAB-ACE	AC Power Cord (Europe), C13, CEE 7, 1.5M	1
7)	HWIC-BLANK	Blank faceplate for HWIC slot on Cisco ISR	1
8)	SL-VG3X0-IPB-K9	Cisco VG3X0 IP Base License	1
9)	SL-VG3X0-UC-K9	Cisco VG3X0 Unified Communications License	1
10)	Gigaset DA-710	Gigaset DA-710 Analog phone	20

A.1.5 NU VOIP phone

[34] The VoIP phone model shall be a Cisco 8841

#	PID	Description	Qty
1)	CP-8841-K9=	Cisco IP Phone 8841	1
2)	CON-SNT-CP8841K9	SNTC-8X5XNBD Cisco UC Phone 8841	1
3)	R-UCL-UCM-LIC-K9	Top Level SKU For UCL User License - eDelivery	1
4)	CON-SWP1-RUCLUCK9	SW SUPPORT ENHANCED Top Level SKU For 9.	1
5)	LIC-CUCM-11X-ENH-A	UC Manager-11.x Enhanced Single User License	1
6)	CON-SWP1-LICXENHA	SW SUPPORT ENHANCED UC Manager-11.x Enhanced Single User-Und	1
7)	UCM-PAK	UCMPAK	1
8)	EXPWY-VE-C-K9	Cisco Expressway-C Server, Virtual Edition	1
9)	EXPWY-VE-E-K9	Cisco Expressway-E Server, Virtual Edition	1
10)	LIC-EXP-DSK	Expressway Desktop Endpoint License	1
11)	LIC-CUCM-11X-ENH	UC Manager Enhanced 11.x License	1
12)	LIC-EXP-E-PAK	Expressway Series, Expressway-E PAK	1
13)	LIC-EXP-GW	Enable GW Feature (H323-SIP)	1
14)	LIC-EXP-E	Enable Expressway-E Feature Set	1
15)	LIC-EXP-TURN	Enable TURN Relay Option	1
16)	LIC-EXP-AN	Enable Advanced Networking Option	1
17)	LIC-SW-EXP-K9	License Key Software Encrypted	1
18)	LIC-EXP-SERIES	Enable Expressway Series Feature Set	1
19)	SW-EXP-12.X-K9	Software Image for Expressway with Encryption, Version X12	1

A.1.6 NU Analogue phone

[35] The analog phone model shall be a Gigaset DA-710

#	Item	Description	Qty
1)		Gigaset DA-710 Analog phone	1

A.1.7 Tranceiver modules

A.1.7.1 ** Intentionally Blank

#	PID	Description	Qty
1)		N/A ** Intentionally Blank	0

A.1.7.2 SFP Modules (Access 100Mb short)

[36] The SFP module for multi-mode 1Gbps links is GLC-GE-100FX

#	PID	Description	Qty
1)	GLC-GE-100FX=	100BASE-FX SFP for GE SFP port	1

A.1.7.3 SFP Modules (Access 1Gb short)

[37] The SFP module for multi-mode 1Gbps links is GLC-SX-MMD

#	PID	Description	Qty
1)	GLC-SX-MMD=	1000BaseSX multimode transceiver module	1

A.1.7.4 ** Intentionally Blank

#	PID	Description	Qty
1)		N/A ** Intentionally Blank	0

A.1.7.5 SFP Modules (Interconnect, 10Gb, short)

[38] The SFP+ module for multi-mode 10Gbps links is SFP-10G-SR-S

#	PID	Description	Qty
1)	SFP-10G-SR-S=	10GBASE-SR SFP+ transceiver module multi mode	1

A.1.7.6 SFP Modules (Interconnect 10Gb, medium)

[39] The SFP+ module for multi-mode 10Gbps links is SFP-10G-LRM

#	PID	Description	Qty
1)	SFP-10G-LRM=	10GBASE-SR SFP+ transceiver module multimode	1

A.1.7.7 SFP Modules (Interconnect, 10Gb , long)

[40] The SFP+ module for single-mode 10Gbps links is SFP-10G-LR-S

#	PID	Description	Qty
1)	SFP-10G-LR-S=	10GBASE-LR SFP+ transceiver module single mode	1

A.1.8 Virtual Host Server and Storage (Large)

[41] All server and storage equipment shall be sourced from a mainstream brand manufacturer that has a support and warranty channel that cover the geographical scope of this Contract and shall include, but

are not limited to: Hewlett Packard, Dell, Lenovo, NetApp, IBM etc, in order to replace existing branded equipment.

[42] Servers or OEM vSAN ReadyNode™ meeting or exceeding the following Virtual Host Server and Storage specifications may also be provided.

#	Item	Minimum Requirements	Qty
1)	Chassis	2U Rack Mount Server with Small Form Factor (SFF) Chassis	1
2)	CPU	Dual CPU, Intel Xeon-Platinum 8168 (2.7GHz/24-core/205W) Processor	2
3)	Memory	192GB RAM using 32GB DDR4-2666 Registered Smart Memory	6
4)	Interfaces	1 x VGA/Display Port, 1 x Micro SD Slot, 4 x USB 3.0 Port	
5)	Storage	NVMe Capable Hard Disk Drive (HDD) SAS/SATA Storage Controller	1
6)	Storage	SFF HDD Storage Cage (supports 8 x SFF drives)	2
7)	Storage	Cache tier - 800GB SAS 12G Write Intensive SFF (2.5in) SC 3yr Warranty Digitally Signed Firmware SSD	3
8)	Storage	System tier - 300GB SAS 12G Enterprise 10K SFF (2.5in) SC 3yr Warranty Digitally Signed Firmware HDD	2
9)	Storage	Mixed tier - 3.2TB SAS 12G Mixed Use SFF (2.5in) SC 3yr Warranty Digitally Signed Firmware SSD	9
10)	Adapter	Storage Array Controller (8 Internal Lanes/2GB Cache) 12G SAS PCIe Plug-in Controller	1
11)	Storage	Storage Backup Battery (up to 20 Devices) with cables	1
12)	Network	4 x 1GbE embedded LAN Ports	4
13)	Network	Ethernet 10Gb 2-port Flexible LOM SFP+ Adapter & 10GBase-T SFP Transceivers	2
14)	Management	Remote Management Network Port	1
15)	Cooling	Redundant High Performance Temperature Fan Kit	1
16)	Power	Hot Plug Low Halogen Power Supply Kit	1
17)	Rack	2U Cable Management Rack Arm Kit	1
18)	Rack	2U Small Form Factor Rack Rail Kit	1
19)	Support	3 Year Next Business Day Support 24x7 with Media Retention Service	1
20)	TPST	Certified and provided with SDIP-27 Level C TEMPEST Certificate (As indicated in RFQ Bidding Sheet/SSS).	1

A.1.9 Virtual Host Server and Storage (Medium)

#	Item	Minimum Requirements	Qty
1)	Chassis	2U Rack Mount Server with Small Form Factor (SFF) Chassis	1
2)	CPU	Dual CPU Intel Xeon-Gold 6148 (2.4GHz/20-core/145W) Processor	2
3)	Memory	192GB RAM using 32GB DDR4-2666 Registered Smart Memory	6
4)	Interfaces	1 x VGA/Display Port, 1 x Micro SD Slot, 4 x USB 3.0 Port	
5)	Storage	NVMe Capable Hard Disk Drive (HDD) SAS/SATA Storage Controller	1
6)	Storage	SFF HDD Storage Cage (supports 8 x SFF drives)	2
7)	Storage	Cache tier - 400GB SAS 12G Write Intensive SFF (2.5in) SC 3yr Warranty Digitally Signed Firmware SSD	2
8)	Storage	System tier - 300GB SAS 12G Enterprise 10K SFF (2.5in) SC 3yr Warranty Digitally Signed Firmware HDD	2

#	Item	Minimum Requirements	Qty
9)	Storage	Mixed tier - 3.2TB SAS 12G Mixed Use SFF (2.5in) SC 3yr Warranty Digitally Signed Firmware SSD	8
10)	Adapter	Storage Array Controller (8 Internal Lanes/2GB Cache) 12G SAS PCIe Plug-in Controller	1
11)	Storage	Storage Backup Battery (up to 20 Devices) with cables	1
12)	Network	4 x 1GbE embedded LAN Ports	4
13)	Network	Ethernet 10Gb 2-port Flexible LOM SFP+ Adapter & 10GBase-T SFP Transceivers	2
14)	Management	Remote Management Network Port	1
15)	Cooling	Redundant High Performance Temperature Fan Kit	1
16)	Power	Hot Plug Low Halogen Power Supply Kit	1
17)	Rack	2U Cable Management Rack Arm Kit	1
18)	Rack	2U Small Form Factor Rack Rail Kit	1
19)	Support	3 Year Next Business Day Support 24x7 with Media Retention Service	1
20)	TPST	Certified and provided with SDIP-27 Level C TEMPEST Certificate (As indicated in RFQ Bidding Sheet/SSS).	1

A.1.10 Virtual Host Server and Storage (Small)

#	Item	Minimum Requirements	Qty
1)	Chassis	2U Rack Mount Server with Small Form Factor (SFF) Chassis	1
2)	CPU	Dual CPU Intel Xeon-Gold 6132 (2.7GHz/14-core/165W) Processor	2
3)	Memory	64GB RAM using 32GB DDR4-2666 Registered Smart Memory	2
4)	Interfaces	1 x VGA/Display Port, 1 x Micro SD Slot, 4 x USB 3.0 Port	
5)	Storage	NVMe Capable Hard Disk Drive (HDD) SAS/SATA Storage Controller	1
6)	Storage	SFF HDD Storage Cage (supports 8 x SFF drives)	2
7)	Storage	Cache tier - 400GB SAS 12G Write Intensive SFF (2.5in) SC 3yr Warranty Digitally Signed Firmware SSD	1
8)	Storage	System tier - 300GB SAS 12G Enterprise 10K SFF (2.5in) SC 3yr Warranty Digitally Signed Firmware HDD	2
9)	Storage	Mixed tier – 1.92TB SAS 12G Mixed Use SFF (2.5in) SC 3yr Warranty Digitally Signed Firmware SSD	8
10)	Adapter	Storage Array Controller (8 Internal Lanes/2GB Cache) 12G SAS PCIe Plug-in Controller	1
11)	Network	4 x 1GbE embedded LAN Ports	4
12)	Network	Ethernet 10Gb 2-port Flexible LOM SFP+ Adapter & 10GBase-T SFP Transceivers	2
13)	Storage	Storage Backup Battery (up to 20 Devices) with cables	1
14)	Storage	Array Performance RAID 12G SAS Modular Controller (16 Internal Lanes/4GB Cache/SmartCache)	1
15)	Management	Remote Management Network Port	1
16)	Cooling	Redundant High Performance Temperature Fan Kit	1
17)	Power	Hot Plug Low Halogen Power Supply Kit	1
18)	Rack	2U Cable Management Rack Arm Kit	1
19)	Rack	2U Small Form Factor Rack Rail Kit	1
20)	Support	3 Year Next Business Day Support 24x7 with Media Retention Service	1

#	Item	Minimum Requirements	Qty
21)	TPST	Certified and provided with SDIP-27 Level C TEMPEST Certificate (As indicated in RFQ Bidding Sheet/SSS).	1

A.1.11 N/A (Intentionally Blank)

#	Item	Minimum Requirements	Qty
1)		N/A (Intentionally Blank)	0

A.1.12 Virtual Host Witness Server

#	Item	Minimum Requirements	Qty
1)	Chassis	2U Rack Mount Server with Small Form Factor (SFF) Chassis	1
2)	CPU	Dual CPU Intel Xeon- Silver 4114 (2.2GHz/10-core/85W) Processor	2
3)	Memory	32GB RAM using 16GB DDR4-2666 Registered Smart Memory	2
4)	Interfaces	1 x VGA/Display Port, 1 x Micro SD Slot, 4 x USB 3.0 Port	
5)	Storage	Universal Media Bay	1
6)	Storage	300GB SAS 12G Enterprise 10K SFF (2.5in) SC 3yr Wty Digitally Signed Firmware HDD	2
7)	Storage	Storage Backup Battery (up to 20 Devices) with cables	1
8)	Adapter	Storage Array Controller (8 Internal Lanes/2GB Cache) 12G SAS PCIe Plug-in Controller	1
9)	Network	4 x 1GbE embedded LAN Ports	4
10)	Management	Remote Management Network Port	1
11)	Power	Hot Plug Low Halogen Power Supply Kit	1
12)	Rack	2U Cable Management Rack Arm Kit	1
13)	Rack	2U Small Form Factor Rack Rail Kit	1
14)	Support	3 Year Next Business Day Support 24x7 with Media Retention Service	1
15)	TPST	Certified and provided with SDIP-27 Level C TEMPEST Certificate (As indicated in RFQ Bidding Sheet/SSS).	1

A.1.13 Physical Server (Domain Controller)

#	Item	Minimum Requirements	Qty
1)	Chassis	2U Rack Mount Server with Small Form Factor (SFF) Chassis	1
2)	CPU	Dual CPU Intel Xeon- Silver 4114 (2.2GHz/10-core/85W) Processor	2
3)	Memory	32GB RAM using 16GB DDR4-2666 Registered Smart Memory	2
4)	Interfaces	1 x VGA/Display Port, 1 x Micro SD Slot, 4 x USB 3.0 Port	
5)	Storage	Universal Media Bay	1
6)	Storage	300GB SAS 12G Enterprise 10K SFF (2.5in) SC 3yr Wty Digitally Signed Firmware HDD	2
7)	Storage	Storage Backup Battery (up to 20 Devices) with cables	1
8)	Adapter	Storage Array Controller (8 Internal Lanes/2GB Cache) 12G SAS PCIe Plug-in Controller	1
9)	Network	4 x 1GbE embedded LAN Ports	4
10)	Management	Remote Management Network Port	1
11)	Power	Hot Plug Low Halogen Power Supply Kit	1
12)	Rack	2U Cable Management Rack Arm Kit	1

#	Item	Minimum Requirements	Qty
13)	Rack	2U Small Form Factor Rack Rail Kit	1
14)	Support	3 Year Next Business Day Support 24x7 with Media Retention Service	1
15)	TPST	Certified and provided with SDIP-27 Level C TEMPEST Certificate (As indicated in RFQ Bidding Sheet/SSS).	1

A.1.14 Backup Server (Large)

#	Item	Minimum Requirements	Qty
1)	Chasis	2U Rack Mount Server with Large Form Factor (LFF) Chassis	1
2)	CPU	Dual CPU Intel Xeon- Silver 4114 (2.2GHz/10-core/85W) Processor	2
3)	Memory	32GB RAM using 16GB DDR4-2666 Registered Smart Memory	2
4)	Interface s	1 x VGA/Display Port, 1 x Micro SD Slot, 4 x USB 3.0 Port	
5)	Storage	System Tier - 300GB SAS 12G Enterprise 10K SFF (2.5in) SC 3yr Wty Digitally Signed Firmware HDD	2
6)	Storage	Backup Tier - 12TB SAS 12G Midline 7.2K LFF (3.5in) SC 1yr Wty Digitally Signed Firmware HDD	8
7)	Storage	Storage Riser Kit	1
8)	Adapter	Storage Array Controller (8 Internal Lanes/Cache) 12G SAS PCIe Plug-in Controller	1
9)	Storage	Storage Backup Battery (up to 20 Devices) with cables	1
10)	Adapter	Storage Array Controller (8 External Lanes/Cache) 12G SAS PCIe Plug-in Controller	1
11)	Storage	Storage Backup Battery (up to 20 Devices) with cables	1
12)	Network	4 x 1GbE embedded LAN Ports	4
13)	Network	Ethernet 10Gb 2-port Flexible LOM SFP+ Adapter & 10GBase-T SFP Transceivers	2
14)	Manage ment	Remote Management Network Port	1
15)	Power	Hot Plug Low Halogen Power Supply Kit	1
16)	Cooling	Redundant High Performance Temperature Fan Kit	1
17)	Rack	2U Cable Management Rack Arm Kit	1
18)	Rack	2U Small Form Factor Rack Rail Kit	1
19)	Support	3 Year Next Business Day Support 24x7 with Media Retention Service	1
20)	Storage	2U Rack Mount External Disk Array Enclosure (LFF) 12 Drive Bays	1
21)	Storage	Backup Tier - 12TB SAS 12G Midline 7.2K LFF (3.5in) SC 1yr Wty Digitally Signed Firmware HDD	12
22)	Storage	Mini-SAS HD Cable	2
23)	Rack	2U Cable Management Rack Arm Kit	1
24)	Rack	2U Small Form Factor Rack Rail Kit	1
25)	Support	3 Year Next Business Day Support 24x7 with Media Retention Service	1
26)	TPST	Certified and provided with SDIP-27 Level C TEMPEST Certificate (As indicated in RFQ Bidding Sheet/SSS).	1

A.1.15 Backup Server (Small)

#	Item	Minimum Requirements	Qty
1)	Chasis	2U Rack Mount Server with Large Form Factor (LFF) Chassis	1
2)	CPU	Dual CPU Intel Xeon- Silver 4114 (2.2GHz/10-core/85W) Processor	2
3)	Memory	32GB RAM using 16GB DDR4-2666 Registered Smart Memory	2
4)	Interfaces	1 x VGA/Display Port, 1 x Micro SD Slot, 4 x USB 3.0 Port	
5)	Storage	System Tier - 300GB SAS 12G Enterprise 10K SFF (2.5in) SC 3yr Wty Digitally Signed Firmware HDD	2
6)	Storage	Backup Tier - 12TB SAS 12G Midline 7.2K LFF (3.5in) SC 1yr Wty Digitally Signed Firmware HDD	8
7)	Storage	Storage Riser Kit	1
8)	Adapter	Storage Array Controller (8 Internal Lanes/Cache) 12G SAS PCIe Plug-in Controller	1
9)	Storage	Storage Backup Battery (up to 20 Devices) with cables	1
10)	Adapter	Storage Array Controller (8 External Lanes/Cache) 12G SAS PCIe Plug-in Controller	1
11)	Network	4 x 1GbE embedded LAN Ports	4
12)	Network	Ethernet 10Gb 2-port Flexible LOM SFP+ Adapter & 10GBase-T SFP Transceivers	2
13)	Management	Remote Management Network Port	1
14)	Power	Hot Plug Low Halogen Power Supply Kit	1
15)	Cooling	Redundant High Performance Temperature Fan Kit	1
16)	Rack	2U Cable Management Rack Arm Kit	1
17)	Rack	2U Small Form Factor Rack Rail Kit	1
18)	Support	3 Year Next Business Day Support 24x7 with Media Retention Service	1
19)	TPST	Certified and provided with SDIP-27 Level C TEMPEST Certificate (As indicated in RFQ Bidding Sheet/SSS).	1

A.1.16 GEO Datastore (10 TB, low performance)

#	Item	Minimum Requirements	Qty
1)	Storage	2U Rack Mount External Disk Array Enclosure (LFF) 12 Drive Bays	1
2)	Storage	Storage Tier - 12TB SAS 12G Midline 7.2K LFF (3.5in) SC 1yr Wty Digitally Signed Firmware HDD	6
3)	Storage	Mini-SAS HD Cable	2
4)	Adapter	Storage Array Controller (8 External Lanes/Cache) 12G SAS PCIe Plug-in Controller	1
5)	Storage	Storage Backup Battery (up to 20 Devices) with cables	1
6)	Rack	2U Cable Management Rack Arm Kit	1
7)	Rack	2U Small Form Factor Rack Rail Kit	1
8)	Support	3 Year Next Business Day Support 24x7 with Media Retention Service	1
9)	TPST	Certified and provided with SDIP-27 Level C TEMPEST Certificate (As indicated in RFQ Bidding Sheet/SSS).	1

A.1.17 Tape Library

#	Item	Minimum Requirements	Qty
1)	Storage	MSL 3048 Tape Library	1
2)	Storage	MSL LTO-8 Ultrium SAS Drive Kit	4
3)	Storage	MSL Redundant Power Supply Kit	1
4)	Cable	Mini SAS Fan Out Drive Cable	1
5)	Rack	Rack Rail/Mount Kit	1
6)	Support	3 Year Next Business Day Support 24x7 with Media Retention Service	1
7)	TPST	Certified and provided with SDIP-27 Level C TEMPEST Certificate (As indicated in RFQ Bidding Sheet/SSS).	1

A.1.18 Tape Media

#	Item	Minimum Requirements	Qty
1)		HPE LTO-8 Ultrium 30TB RW Non Custom Labeled Library Pack 20 Data Cartridges with Cases	1

A.1.19 Virtual Loadbalancers

#	Item	Minimum Requirements	Qty
1)		Virtual-F5-LTM BEST with WAFs	1
2)		BIG-IP Virtual Edition: Local Traffic Manager 200 Mbps (v11.6.x - v16.x)	1
3)		BIG-IP Service: Standard Virtual Edition Level 1-3 (12% of List) (Version+ Only)	1

A.1.20 Firewall (IEG-C & SPN +1 Year Support)

#	Item	Minimum Requirements	Qty
1)	Brand	Palo Alto	1
2)	Model	PA-3260	1
3)	Type	Next-generation firewall	1
4)	Max throughput	10 Gbps	1
5)	HTTP throughput	8.4 Gbps	1
6)	IPSec VPN throughput	4.8 Gbps	1
7)	Max sessions	3,000,000	1
8)	New sessions per second	118,000	1
9)	Interface Modes	L3	1
10)	VLANs	802.1Q trunk with VLAN support	1
11)	Network interface	10Mbps/100Mbps/1Gbps RJ-45 port	12
12)	Network interface	10G SFP+ port	8
13)	SFP+	SFP+ short reach 10 Gb optical transceiver, MMF, duplex LC, 10GBASE-SR	8
14)	Network interface	40G QSFP+ port	4
15)	QSFP+	QSFP+ SR4 40G optical transceiver, MMF, MPO (MTP)	2
16)	Management interface	10Mbps/100Mbps/1Gbps RJ-45 port	1
17)	High availability port	10G SFP+ port	1

#	Item	Minimum Requirements	Qty
18)	High availability SFP+	SFP+ long reach 10 Gbps optical transceiver, SMF, duplex LC, 10GBASE-LR	1
19)	High availability modes	active/active, active/passive	1
20)	Features	Threat detection software (see section A.1.22)	1
21)	Storage	240 GB SSD	1
22)	Power supply	650-watt AC or DC	1
23)	Secondary power supply	650-watt AC or DC	1
24)	Power cord	AC Power Cord (Europe), C13, CEE 7, 1.5M	2
25)	Centralized management interface	Panorama	1
26)	Rail kit	19" Standard Rack Rails	1
27)	Support	Premium annual support, 1 year	1
28)	NIAPC	Manufacturer included in NIAPC	1
8)	TPST	Certified and provided with SDIP-27 Level C TEMPEST Certificate (As indicated in RFQ Bidding Sheet/SSS).	1

A.1.21 Mailguard + 1 Year Support

#	Item	Minimum Requirements	Qty
1)	Brand	Nexor	1
2)	Model	Sentinel version 3.6	1
3)	Type	Hardware appliance for high assurance email guard	1
4)	Installed Software	<ul style="list-style-type: none"> • Sentinel Appliance Software; • Secure operating system (e.g. Red Hat Enterprise Linux); • Antivirus. 	1
5)	Hardware	Gen 10 server or equivalent	1
6)	Network interface	1Gb Ethernet port RJ-45 minimum (SFP if available)	4
7)	Power supply	100-240 VAC power supply	1
8)	Secondary power supply	100-240 VAC power supply	1
9)	Power cord	AC Power Cord (Europe), C13, CEE 7, 1.5M	2
10)	Rail kit	19" standard rack	1
11)	Support	Annual support, renewable, 1 year	1
12)	NIAPC	Manufacturer and product included in NIAPC	1
13)	Certification	Common Criteria EAL 4+	1
14)	TPST	Certified and provided with SDIP-27 Level C TEMPEST Certificate (As indicated in RFQ Bidding Sheet/SSS).	1

A.1.22 NIPS License

#	Item	Minimum Requirements	Qty
1)	Brand	Palo Alto	1
2)	Model	Threat Prevention service	1
3)	Type	Network-based Intrusion Prevention System	1

#	Item	Minimum Requirements	Qty
4)	Max throughput	4.7 Gbps	1
5)	HTTP throughput	3.9 Gbps	1
6)	Security profiles	<ul style="list-style-type: none"> • Antivirus • Anti-command-and-control (spyware protection) • Anti-exploit (vulnerability protection) 	1
7)	Response actions	Allow, alert, drop, reset client-side connection, reset server-side connection, reset both, block IP	1
8)	Centralized management interface	Panorama	1
9)	Installation	Installed on new firewall (See section A.1.20) or existing PFE firewall, except in NLO Skopje	1
10)	Licence	Annual licence	1
11)	NIAPC	Manufacturer included in NIAPC	1

A.1.23 XML-Labeling Guard + 1 Year Support

#	Item	Minimum Hardware Requirements	Qty
1)	Type	Hardware Appliance for Security Gateway, XML-Labeling Guard	1
2)	Installed Software	As specified in section 3.8.3: XML-Labeling Guard (XLG)	1
3)	Management protocols	<ul style="list-style-type: none"> • HTTPS web interface; • Syslog; • Network Time Protocol 	1
4)	Network interface	1Gb Ethernet port SFP	4
5)	SFP	1000BaseSX multimode LC transceiver module	4
6)	Power supply	100-240 VAC power supply	1
7)	Secondary power supply	100-240 VAC power supply	1
8)	Power cord	AC Power Cord (Europe), C13, CEE 7, 1.5M	2
9)	Rail kit	19" standard rack	1
10)	Support	Annual support, renewable, 1 year	1
11)	NIAPC	Manufacturer and product included in NIAPC by time of KFOR PSA	1
12)	TPST	Certified and provided with SDIP-27 Level C TEMPEST Certificate (As indicated in RFQ Bidding Sheet/SSS).	1

A.1.24 ** Intentionally Blank

#	Item	Minimum Requirements	Qty
1)		N/A (Intentionally Blank)	0

A.1.25 Proxy device

#	Item	Minimum Requirements	Qty
1)	Type	Secure web gateway appliance, suitable as a modern replacement for an obsolete BlueCoat 510-10 ProxySG appliance	1
2)	Features	Web gateway, content analysis, antivirus, TLS proxy, blacklist/whitelist, central management	1
3)	Management	Remote Management Network Port	1
4)	Management protocols	<ul style="list-style-type: none"> • Command Line interface (CLI) via Secure Shell (SSH); • HTTPS web interface; • Syslog; • Network Time Protocol 	1
5)	Network interface	<ul style="list-style-type: none"> • 1Gb Ethernet port RJ-45; • including at least 2 non-bypass ports 	4
6)	Performance	Concurrent users	1000
7)	Power supply	100-240 VAC power supply	1
8)	Secondary power supply	100-240 VAC power supply	1
9)	Power cord	AC Power Cord (Europe), C13, CEE 7, 1.5M	2
10)	Rail kit	19" standard rack	1
11)	Maintainability	<ul style="list-style-type: none"> • Patchable software, firmware, and operating system; • Antivirus and threat intelligence updates 	1
12)	Support	Annual support, hardware and software, renewable, 1 year	1
13)	TPST	Certified and provided with SDIP-27 Level C TEMPEST Certificate (As indicated in RFQ Bidding Sheet/SSS).	1

A.1.26 Racks (incl. PDU, Fans)

A.1.26.1 42U Rack

#	Item	Minimum Requirements	Qty
1)		G2 42U, 19 Inch Rack	1
2)		Advanced Series Rack Tie Down Kit	1
3)		G2 Basic 7.3kVA/60309 3-wire 32A/230V Outlets (36) C13 (6) C19/Vertical INTL PDU	2
4)		G2 Rack Grounding Kit	1
5)		G2 Rack Baying Kit	1
6)		42U 600mmx1200mm G2 Kitted Advanced Pallet Rack with Side Panels and Baying	1
7)		1U 10-pack Black Universal Filler Panel	3
8)		Rack Cable Management Kit	1
9)		<ul style="list-style-type: none"> • Net usage space shall be four (4) pole 42 RU [Rack Unit = 1,75"] high and 19" mounting distance (482,6 mm) with square holes on the mounting poles / frames for standard cage nuts; • Mounting poles / frames shall be adjustable from front to rear, with this adjustment distance from front door shall be optimised to enable correct bending radius for fibre optical cabling • The Contractor shall deliver standard mounting screws and square cage nuts; • Communication enclosures shall have two (2) solid lockable side panels – equipped with safety lock; 	

#	Item	Minimum Requirements	Qty
		<ul style="list-style-type: none"> • Front door: single pane glazed safety glass – lockable (security lock) equipped with hinges min. 130° hinge; • Rear door: Sheet steel door, including min. 130° hinge, security lock – dual door at the rear is also acceptable to save space at the back; • Roof plate, with cable entry and covered cut-out for fan mounting plate; • Power distribution inside the communication enclosure; • Active Fan attached to the PDU to force air cooling with power switch; • Where it is possible the Contractor shall fix the communication enclosure to the ground • The communication enclosure shall be equipped with vertical and horizontal cable guides • For heavy front mounted equipment (UPS / switch) the front and rear frames / poles shall be connected with supporting elements; and • The communication racks shall be deep enough to host the UPS equipment. 	

A.1.26.2 Rack PDU

#	Item	Minimum Requirements	Qty
1)		Knürr DI-STRIP Compact 16A (1) C20 inlet / (8) Schuko CEE 7/4 outlets	4
2)		Knürr DI-STRIP Compact 16A (1) Schuko CEE7/7 inlet / (8) Schuko CEE 7/4 outlets	2

A.1.27 Rack Peripherals (KVM, KVM Switch)

#	Item	Minimum Requirements	Qty
1)		KVM Console	1
2)		KVM USB Adapter	16
3)		LCD 8500 1U Console INTL Kit	1
4)		0x2x16 G3 KVM Console Switch	1
5)	TPST	Certified and provided with SDIP-27 Level C TEMPEST Certificate (As indicated in RFQ Bidding Sheet/SSS).	1

A.1.28 Rack UPS (Large, server rooms)

A.1.28.1 Rack UPS – 6kVA

#	Item	Minimum Requirements	Qty
1)		Rack UPS - 6kVA	1
2)		6000VA RM 230V Includes: CD with software , Installation guide , Rack Mounting brackets , Rack mounting hardware , Rack Mounting support rails , Temperature Probe , USB cable , Warranty card , Web/SNMP Management Card (RJ-45 10/100 Base-T)	1
3)	TPST	Certified and provided with SDIP-27 Level C TEMPEST Certificate (As indicated in RFQ Bidding Sheet/SSS).	1

A.1.28.2 Rack UPS – 8kVA

#	Item	Minimum Requirements	Qty
1)		Rack UPS - 8kVA	1
2)		8000VA RM 230V Includes: CD with software , Installation guide , Rack Mounting brackets , Rack mounting hardware , Rack Mounting support rails , Temperature Probe , USB cable , Warranty card , Web/SNMP Management Card (RJ-45 10/100 Base-T)	1
3)	TPST	Certified and provided with SDIP-27 Level C TEMPEST Certificate (As indicated in RFQ Bidding Sheet/SSS).	1

A.1.29 Rack UPS (Small, equipment rooms)

#	Item	Minimum Requirements	Qty
1)		Rack UPS - 3kVA	1
2)		APC Smart-UPS SRT 3000VA RM 230V w/Network Card Includes: CD with software , Documentation CD , Installation guide , Network Management Card , Rack Mounting brackets , Rack Mounting support rails , USB cable , Warranty card	1
3)	TPST	Certified and provided with SDIP-27 Level C TEMPEST Certificate (As indicated in RFQ Bidding Sheet/SSS).	1

A.1.30 Patch cables (LC-LC)

#	Item	Minimum Requirements	Qty
1)		Multi-mode fiber optic cable, 50/125 mikrons, connector LC/LC, class OM3 or OM4, length 5m,	1

A.1.31 A4 Printer

#	Item	Minimum Requirements	Qty
1)		Color LaserJet Pro A4 Colour Network Printer	1
2)		Color: Up to 600 x 600 dpi	
3)		2 x trays supporting A4, up to 300 sheets	
4)		PCL 6, PCL 5c, postscript level 3 emulation, PDF, URF	
5)		Hi-Speed USB 2.0 port, Gigabit Ethernet 10/100/1000T, TCP/IP/SMP,LPD,SNMP support	
6)	Features	<ul style="list-style-type: none"> - Auto duplex unit - PIN Code print job access - Pull printing - Access Control at Printer 	

#	Item	Minimum Requirements	Qty
7)	Card Reader	Secure Print RFID Card Reader	1
8)	RFID Card	Zetes RFID Card with MiFare DESFire EV2 8k Contactless Chip	1
9)	Media Converter	Media Converter to 1000Base-SX: Allied Telesis AT-MMC2000/LC Converter	1
10)	Media Converter	Media Converter to 100Base-SX: Allied Telesis AT-MMC200/SC Converter	1
11)	TPST	Certified and provided with SDIP-27 Level B/C TEMPEST Certificate (As indicated in RFQ Bidding Sheet/SSS).	1

A.1.32 A3 Printer

#	Item	Minimum Requirements	Qty
1)	Model	Color LaserJet Enterprise flow MFP	1
2)	Type	Multi-Function Device – printing, scanning, copying	
3)	Scan resolution	Colour: Up to 600 x 600 dpi	
4)	Printing and scanning size	Printing: A3	
5)	Print resolution	Color: Up to 1200x1200 optimized dpi	1
6)	Paper capacity	3 x trays supporting A3 and A4, 500 sheets each	
7)	PDL	PCL5E/C, PCL6, XPS, PostScript	
8)	Fonts	Adobe PostScript 3, Adobe PDF 1.7, TIFF, JPEG, CALS G4, PCL 3 GUI, GL/2 and RTL	
9)	Network	1 x Gigabit Ethernet 10/100/1000T; TCP/IP/SMP,LPD,SNMP support	
10)	Features	<ul style="list-style-type: none"> - PIN Code print job access - Pull printing - Access Control at Printer - Single pass - Scan to email - Multi-copy feature - Auto duplex 	
11)	Card Reader	Secure Print RFID Card Reader	1
12)	RFID Card	Zetes RFID Card with MiFare DESFire EV2 8k Contactless Chip	1
13)	Media Converter	- Media Converter to 1000Base-SX: Allied Telesis AT-MMC2000/LC Converter	
14)	Media Converter	- Media Converter to 100Base-SX: Allied Telesis AT-MMC200/SC Converter	
12)	TPST	Certified and provided with SDIP-27 Level B/C TEMPEST Certificate (As indicated in RFQ Bidding Sheet/SSS).	1

A.1.33 ** Intentionally Blank

#	Item	Minimum Requirements	Qty
1)		N/A Intentionally Blank	0

A.1.34 A0 Plotter/Scanner Combi Device + Media Converters

#	Item	Minimum Requirements	Qty
1)	Model	A0 MFP Plotter	1
2)	Printing size	A0 Plotter/Scanner combination	
3)	Print resolution	Color: Up to 2400x1200 optimized dpi	
4)	Paper capacity	Two automatic roll feeds; smart roll-switching	
5)	PDL	Adobe PostScript 3, Adobe PDF 1.7, TIFF, JPEG, CALS G4, PCL 3 GUI, GL/2 and RTL	
6)	Fonts	Adobe PostScript 3, Adobe PDF 1.7, TIFF, JPEG, CALS G4, PCL 3 GUI, GL/2 and RTL	
7)	Speed	60 m2/hr (650 ft2/hr)	
8)	Interfaces	Gigabit Ethernet (1000BaseT), Hi-speed USB 2.0 certified	
9)	Features	<ul style="list-style-type: none"> - Two automatic roll feeds; smart roll-switching, sheet feed, media output bin, automatic cutter - PIN Code print job access - Pull printing - Access Control at Printer 	
10)	Card Reader	Secure Print RFID Card Reader	1
11)	RFID Card	Zetes RFID Card with MiFare DESFire EV2 8k Contactless Chip	1
12)	Media Converter	Media Converter to 1000Base-SX: Allied Telesis AT-MMC2000/LC Converter	
13)	Media Converter	Media Converter to 100Base-SX: Allied Telesis AT-MMC200/SC Converter	
14)	TPST	Certified and provided with SDIP-27 Level B/C TEMPEST Certificate (As indicated in RFQ Bidding Sheet/SSS).	1

A.1.35 A1 Plotter + Media Converters

#	Item	Minimum Requirements	Qty
1)	Model	A1 Plotter	1
2)	Printing size	A1 Plotter, supporting 11 to 24 inch	
3)	Print resolution	Color: Up to 2400x1200 optimized dpi	

#	Item	Minimum Requirements	Qty
4)	Paper capacity	2 automatic roll feeds/smart roll switching	
5)	PDL	GL/2, RTL, JPEG, CALS G4	
6)	Fonts	PCL/PS	
7)	Speed	70 A1 prints/hour	
8)	Interfaces	Fast Ethernet (100Base-T), High speed USB 2.0 certified	
9)	Features	<ul style="list-style-type: none"> - Finished output handling; Sheet feed, roll feed, input tray, media bin, automatic cutter - PIN Code print job access - Pull printing - Access Control at Printer 	
10)	Card Reader	Secure Print RFID Card Reader	1
11)	RFID Card	Zetes RFID Card with MiFare DESFire EV2 8k Contactless Chip	1
12)	Media Converter	Media Converter to 1000Base-SX: Allied Telesis AT-MMC2000/LC Converter	
13)	Media Converter	Media Converter to 100Base-SX: Allied Telesis AT-MMC200/SC Converter	
15)	TPST	Certified and provided with SDIP-27 Level B/C TEMPEST Certificate (As indicated in RFQ Bidding Sheet/SSS).	1

A.1.36 Digital Sender

#	Item	Minimum Requirements	Qty
1)	Model	Scanjet Enterprise FlowFlatbed & ADF scanner 600 x 600DPI A3	1
2)	Features	<ul style="list-style-type: none"> - Scan to eMail - PIN Code access - Access Control at Printer 	
14)	Card Reader	Secure Print RFID Card Reader	1
15)	RFID Card	Zetes RFID Card with MiFare DESFire EV2 8k Contactless Chip	1
3)	TPST	Certified and provided with SDIP-27 Level B/C TEMPEST Certificate (As indicated in RFQ Bidding Sheet/SSS).	1

A.1.37 ** Intentionally Blank

#	Item	Minimum Requirements	Qty
		N/A Intentionally Blank	0

A.1.38 Projector (Large, 5000 Lumens)

#	Item	Minimum Requirements	Qty
1)	Video modes	480i, 480p, 576i, 567p, 720p, 1080i, 1080p	1
2)	ANSI Lumens	4200 lumens	
3)	Contrast Ratio	500,000:1	
4)	Light source	Laser diode	
5)	Screen Size - Diagonal	1.02 m to 15.24 m	
6)	Throw:	1.39:1 to 2.23:1	
7)	Inputs	4 inputs: RGB, DVI, HDMI, RJ45	
8)	Outputs	2 outputs: D-sub & Stereo Audio, DVI & Stereo Audio	
9)	Keystone correction	+/- 30 degrees	
10)	Mounting	Ceiling mounting kit	
11)	TPST	Certified and provided with SDIP-27 Level B/C TEMPEST Certificate (As indicated in RFQ Bidding Sheet/SSS).	1

A.1.39 Projector (Medium, 3000-5000 Lumens)

#	Item	Minimum Requirements	Qty
1)	Video modes	480p, 720p, 1080i, 1080p, 480i, 576i, 576p	1
2)	ANSI Lumens	4200 lm	
3)	Contrast Ratio	2,200:1 Typical (Full On/Full Off)	
4)	Light source	Laser diode	
5)	Screen Size - Diagonal	0.76 m to 7.62 m	
6)	Throw	1.40:1 to 2.27:1	
7)	Inputs	4 inputs: 2 x RGB, 2 x HDMI	
8)	Outputs	2 outputs: D-sub & Stereo Audio, RJ45	
9)	Keystone correction	+/- 30 degrees	
10)	Audio	Built-in Multimedia Speaker min 10w	
11)	Mounting	Ceiling mounting kit	1
12)	TPST	Certified and provided with SDIP-27 Level B/C TEMPEST Certificate (As indicated in RFQ Bidding Sheet/SSS).	1

A.1.40 Projectors (small, portable)

#	Item	Minimum Requirements	Qty
1)	Video modes	480p, 720p, 1080i, 1080p, 480i, 576i, 576p	1
2)	ANSI Lumens	3200 lm	
3)	Contrast Ratio	2,200:1	
4)	Light source	Lamp	
5)	Screen Size - Diagonal	0.76 m to 7.62 m	
6)	Throw	1.47:1 to 1.77:1	
7)	Inputs	4 inputs: 2 x RGB, 2 x HDMI	
8)	Outputs	2 outputs: D-sub & Stereo Audio, RJ45, USB	
9)	Keystone correction	+/- 30 degrees	
10)	Audio	Built-in Multimedia Speaker min 10w	
11)	TPST	Certified and provided with SDIP-27 Level B/C TEMPEST Certificate (As indicated in RFQ Bidding Sheet/SSS).	1

A.1.41 External Media (GIS CW)

#	Item	Minimum Requirements	Qty
1)	Model	Backup Plus Hub 8 TB	
2)	Type	Hard drive - external (portable)	
3)	Capacity	Min 8TB,	
4)	Interface	USB 3.x Port	
5)	Features	Built-in USB hub, automatic backup, NTFS formatted, cloud backup	
6)	Interface Transfer Rate	5.0 Gbps (USB 3.0)	
7)	Max Data Transfer Rate	160 MB/s	
8)	Power	1 x AC Power Adapter (EU) 1 x AC Power Cord 1 x USB 3 Cable	
9)	TPST	Certified and provided with SDIP-27 Level B/C TEMPEST Certificate (As indicated in RFQ Bidding Sheet/SSS).	1

A.1.42 Media Converter Module

#	Item	Minimum Requirements	Qty
1)	Brand	Black Box	
2)	Model	10BASE-T/100BASE-TX to 1000BASE-X SFP Media Converter (LMC1017AE)	
3)	Feature	Auto-negotiate, UTP full & half-duplex, Jumbo Frames,	
4)	SFP	Blackbox SFP, 155-Mbps, Fiber Extended Diagnostics, 850-nm MM LC, 2KM (LFP401)	
5)	TPST	Certified and provided with SDIP-27 Level B/C TEMPEST Certificate (As indicated in RFQ Bidding Sheet/SSS).	1

A.1.43 Media Converter SFP 155-Mbps LC

#	Item	Minimum Requirements	Qty
1)	Brand	Black Box	
2)	SFP	Blackbox SFP, 155-Mbps, Fiber Extended Diagnostics, 850-nm MM LC, 2KM (LFP401)	1

A.1.44 Media Converter SFP 1250-Mbps LC

#	Item	Minimum Requirements	Qty
1)	Brand	Black Box	
2)	SFP	Blackbox SFP, 1250-Mbps, Extended Diagnostics, 850-nm MM LC, 550m (LFP411)	1

A.1.45 Media Converter Wallmount Bracket

#	Item	Minimum Requirements	Qty
1)	Brand	Black Box	
2)	Bracket	Media Converter Wallmount Bracket (LMC206-WALL)	1

A.1.46 Laptop (Windows)

#	Item	Minimum Requirements	Qty
1)	Microsoft Licences	<ul style="list-style-type: none"> MS Windows 10 Pro OEM 64bit no-media 	
2)	Processor	<ul style="list-style-type: none"> Intel Core i5 Cores: 4 Threads: 8 	
3)	Security	<ul style="list-style-type: none"> 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 	
4)	Power management	<ul style="list-style-type: none"> Support for Windows InstantGo / Connected Standby, Speed Shift Technology 	

#	Item	Minimum Requirements	Qty
5)	Remote management	<ul style="list-style-type: none"> • "UEFI Enabled, supports Intel vPro Out of Band Management Technology" 	
6)	Memory	<ul style="list-style-type: none"> • 16GB, expandable to 32GB 	
7)	Local storage	<ul style="list-style-type: none"> • Solid State capacity: 240 GB, performance: 540MB/sec sequential read and 490MB/sec sequential write, durability: 72TBW, supported functions: TCG Opal, IEEE-1667, FDE AES-256, HIPM+DIPM and DevSleep 	
8)	GPU	<ul style="list-style-type: none"> • Intel® Integrated UHD Graphics 620 Performance: at least TO BE CONFIRMED @ 1024x600 in ComputeMark v2.1; USB Type-C 3.1 Gen 2 port (Thunderbolt) or HDMI 1.4a port output for external display; Wireless Display / Miracast support for up to 1080p30 	
9)	Screen Form Factor	<ul style="list-style-type: none"> • 14" diagonal size; • 1920 x 1080 Full HD; • 10-point multi-touch screen; • Contrast 1000:1 • Brightness 300 nits (auto adjustable); • sRGB coverage of >=70% or CIE1931 value of >=72% 	
10)	Keyboard	<ul style="list-style-type: none"> • US International QWERTY keyboard, backlit 	
11)	Touchpad	<ul style="list-style-type: none"> • Touch pad with multi-touch support • Compatible with Windows Precision Touchpad Implementation 	
12)	NIC	<ul style="list-style-type: none"> • RJ45 or PXE enabled adapter included 	
13)	Ports	<ul style="list-style-type: none"> • 1x USB Type-C 3.1 Gen 2 port (Thunderbolt) • 2x USB Type-A 3.1 Gen 1 ports 	
14)	Wi-Fi	<ul style="list-style-type: none"> • Intel IEEE 802.11 Dual-Band Wireless-AC 9560 Wi-Fi (vPro) 	
15)	Additional Features	<ul style="list-style-type: none"> • Integrated Webcam • Integrated Microphone Array (dual microphone with noise cancellation) • Bluetooth 5.0 • Integrated Smartcard reader (PIV compliant) • TRRS 3.5mm mini-jack connector 	
16)	Appearance	<ul style="list-style-type: none"> • Black colour 	
17)	Case	<ul style="list-style-type: none"> • 1x Notebook sleeve 	
18)	Power	<ul style="list-style-type: none"> • 1x Power adapter and cord (auto sensing 110/230V) 1x USB – C Power Adapter Plus - 65W (Power-In Port: AC in, Power-Out Port: 1 x DC out USB-C) 	
19)	Power	<ul style="list-style-type: none"> • Up to 90W 	
20)	Lock	<ul style="list-style-type: none"> • Lock socket 	
21)	TPST	<ul style="list-style-type: none"> • Certified and provided with SDIP-27 Level B/C TEMPEST Certificate (As indicated in RFQ Bidding Sheet/SSS). 	1

A.1.47 Rugged Notebook

NATO UNCLASSIFIED
Releasable to EU

IFB CO-15049-BITS
Book II, Part IV, Annex A
Amendment no 3

#	Item	Minimum Requirements	Qty
1)	Case	Ruggedised Notebook Case	
2)	Performance	BAPCo MobileMark 2014, Office Productivity of 1409 BAPCo MobileMark 2014; Battery life of 1393 using installed batteries.	
3)	Microsoft Licences	MS Windows 10 Pro OEM 64bit no-media	
4)	Processor	Intel Core i7-8650U Cores: 4 Threads: 8	
5)	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	
6)	Power management	Support for Windows InstantGo / Connected Standby, Speed Shift Technology	
7)	Remote management	Supports Intel vPro Out of Band Management Technology	
8)	Memory	16GB, expandable to 32GB	
9)	Storage	NIAPC approved 2.5" inch Viasat Eclipt 256Gb SATA Encrypted Solid State Drive (SSD)	
10)	GPU	Intel UHD 620 graphics + AMD Radeon RX540 graphics 128 Bit, Display Port and HDMI 1.4 video output for external display (native)	
11)	Screen Form Factor	14" diagonal size; 1920 x 1080 FHD; 10-point multi-touch screen; Contrast 1500:1; Brightness 1000 nits OV (outdoor viewable); sRGB coverage of >=70%.	
12)	Docking Station	USB-C Powered Dock with 2 x Display Ports and, 2 x USB 3, 2 x USB 2 ports.	
13)	Keyboard	US International QWERTY keyboard, backlit	
14)	Touchpad	Touch pad with multi-touch support Compatible with Windows Precision Touchpad Implementation	
15)	NIC	1000Base-T Gigabit Ethernet (IEEE 802.3-2015) RJ45; Supports PXE	
16)	Ports	3x USB 3.0 Type A, 1x USB 3.0 Type C, 1x RS-232 serial port 1x RJ-45 gigabit Ethernet network connector 1x HDMI 1x Display Port 1x Universal Audio Jack	
17)	Wi-Fi	IEEE 802.11 n/ac, Intel Wireless Dualband Card 8260	
18)	Additional Features	Integrated Webcam Integrated Microphone Array (dual microphone with noise cancellation) Bluetooth 4.2 Integrated Smartcard reader (PIV compliant) TRRS 3.5mm mini-jack connector	
19)	Appearance	Black colour	
20)	Power	1x Power adapter and cord (auto sensing 110/230V) 1x USB-C Power Adapter Plus - 65W	

#	Item	Minimum Requirements	Qty
21)	Batteries	Onboard Batteries: 2x 3 Cell 51Whr ExpressCharge capable batteries. Additional Batteries: 2x 3 Cell 51Whr ExpressCharge capable batteries.	
22)	Regulatory and environmental	MIL-STD-810G testing: Transit drop (72",60",48"; single unit; 78 drops), operating drop (36"), blowing rain, blowing dust, blowing sand, vibration, functional shock, humidity, salt fog (with rubberized keyboard), altitude, explosive atmosphere, solar radiation, thermal extremes, thermal shock, freeze/thaw, tactical standby to operational. Operating thermal range: -20°F to 145°F (-29°C to 63°C); Non-operating range: -60°F to 160°F (-51°C to 71°C) IEC 60529 ingress protection: IP65 (dust-tight, protected against pressurized water)	
23)	Power consumption	Up to 90W	
24)	Lock	Lock socket/bracket	
25)	TPST	Certified and provided with SDIP-27 Level B/C TEMPEST Certificate (As indicated in RFQ Bidding Sheet/SSS).	

A.1.48 Laptop (MacBook)

#	Item	Minimum Requirements	Qty
1)	Laptop	Apple MacBook Pro 16"	
2)	Display	<ul style="list-style-type: none"> • Retina display • 16- inch (diagonal) LED- backlit display with IPS technology • 3072- by- 1920 native resolution at 226 ppi • 500 nits brightness 	
3)	Operating system	<ul style="list-style-type: none"> • macOS Catalina 	
4)	Processor	<ul style="list-style-type: none"> • 2.6GHz 6- core Intel Core i7, up to 4.5GHz TB, 2MB L3 cache 	
5)	Charging and Expansion	<ul style="list-style-type: none"> • Four Thunderbolt 3 (USB-C) ports with support for: Charging, • DisplayPort, Thunderbolt (up to 40Gb/s), • USB 3.1 Gen 2 (up to 10Gb/s). 	
6)	Memory	<ul style="list-style-type: none"> • 16GB of 2666MHz DDR4 onboard memory 	
7)	Local storage	<ul style="list-style-type: none"> • 512GB SSD 	
8)	Graphics	<ul style="list-style-type: none"> • AMD Radeon Pro 5300M with 4GB of GDDR6 memory and automatic graphics switching 	
9)	Keyboard and Trackpad	<ul style="list-style-type: none"> • Full-size backlit Magic Keyboard with: • 65 (U.S.) or 66 (ISO) keys including 4 arrow keys • Touch Bar 	
10)	Wi-Fi	<ul style="list-style-type: none"> • Wi- Fi, 802.11ac Wi- Fi wireless networking • IEEE 802.11a/b/g/n compatible • Bluetooth 5.0 wireless technology 	
11)	Additional Features	<ul style="list-style-type: none"> • Camera: 720p FaceTime HD camera • Thunderbolt 3 digital video output • Audio: High- fidelity six- speaker system • Studio- quality three-mic array • 3.5 mm headphone jack 	
12)	Appearance	<ul style="list-style-type: none"> • Space Grey 	

#	Item	Minimum Requirements	Qty
13)	Size and Weight	<ul style="list-style-type: none"> • 0.64 inch (1.62 cm) H x 14.09 inches (35.79 cm) W x 9.68 inches (24.59 cm) D • Weight: 4.3 pounds (2.0 kg) 	
14)	Battery and Power	<ul style="list-style-type: none"> • Built- in 100- watt- hour lithium- polymer battery • 96W USB- C Power Adapter (100V-240V AC at 50/60Hz) • USB-C Charge Cable (2m) 	
15)	Warranty & Support	<ul style="list-style-type: none"> • 2 Years manufacturer warranty & support. 	
16)	TPST	Certified and provided with SDIP-27 Level B/C TEMPEST Certificate (As indicated in RFQ Bidding Sheet/SSS).	1

A.1.49 Symantec Mail protection (license per mailbox)

#	Item	Minimum Software Requirements	Qty
1)	Type	Software, Mail Security for MS Exchange Antivirus Windows, Standard License	
2)	Features	Schedulable consolidated reporting New options for handling unscannable files Improved console scalability New content filtering template for US Social Security Numbers to protect against data loss	
3)	Superior Protection	<ul style="list-style-type: none"> •Upgraded antispam and antimalware components leveraging Symantec latest protection techniques •Ability to scan messages in transit or on the mailbox to protect against email borne threats •Powered by Premium AntiSpam, stopping 99 percent of spam with less than one in 1 million false positives •Rapid release definitions and advanced heuristic technologies provide immediate protection •Advanced content filtering protects sensitive information using pre-defined policies, regular expressions, attachment criteria, true file typing, and more. Microsoft Active Directory® based enforcement simplifies policy management 	
4)	Flexible and Easy to Use Management	<ul style="list-style-type: none"> •Initial setup can be completed within 10 minutes with no requirements for tuning, allow listing, or block listing •Management console provides remote installation, centralized server group policy configuration, notifications, alerts, and schedulable consolidated reporting •Support for Microsoft Exchange Database Availability Group, along with Microsoft and Veritas® cluster servers in Exchange 2007, minimizes downtime and simplifies maintenance •Integration with Microsoft Systems Center Operations Manager enables end-to-end monitoring of your IT environment 	
5)	Optimized for Exchange	<ul style="list-style-type: none"> • Flexible, real-time, scheduled, and manual scanning provides efficient protection •In-memory scanning and effective multi-threading provides superior performance •Edge and hub focused scanning leverages anti-virus stamping to eliminate redundant scanning and minimize impact to mail store 	

#	Item	Minimum Software Requirements	Qty
		•Supports Microsoft Exchange 2007, 2010, 2013, Microsoft Hosted Exchange, 64-bit Windows, VMware®, and Microsoft Hyper-V® Virtualized environments	

A.1.50 Veeam Backup & Replication Enterprise PLUS for VMware

#	Item	Minimum Software Requirements	Qty
1)	Type	Software, Veeam Backup & Replication Enterprise PLUS for VMware – Public Sector	
2)	Backup	Application-aware, image-based backups VeeamZIP NAS Backup Veeam Cloud Tier ROBO Guest Interaction Proxy Back I/O control Backup from Storage Snapshots Primary Snapshot Orchestration Support for Nutanix AHV v2 Proxy	
3)	Storing backups	Built-in deduplication, compression and swap exclusion BitLocker™ & file-selective, image-level processing Backup Copy jobs End-to-end encryption Native tape support Veeam Cloud Connect Backup Proxy affinity Per-VM backup files for deduplicating storage Scale-out Backup Repository Built-in WAN Acceleration Veeam Plug-in for Oracle RMAN & SAP HANA	
4)	Replication	Image-based VM replication Assisted failover and failback Replication from a backup Planned failover Veeam Cloud Connect Replication 1-Click failover orchestration	
5)	Entire VM Recovery	Full VM recovery Instant VM Recovery VM file and virtual disk recovery Direct Restore to AWS, Microsoft Azure, Azure Stack	
6)	File level Recovery	Instant File-Level Recovery	
7)	Item level Recovery	Veeam Explorer™ for Storage Snapshots Veeam Explorer for Microsoft Active Directory Veeam Explorer for Microsoft Exchange Veeam Explorer for Microsoft SQL Server Veeam Explorer for Microsoft SharePoint Veeam Explorer for Oracle	
8)	Self-Service	1-Click File and VM recovery portal for help desk operators Microsoft Exchange item recovery portal for help desk operators Database recovery portal for Microsoft SQL DBs	

#	Item	Minimum Software Requirements	Qty
		Database recovery portal for Oracle DBs Self-service file restore portal Recovery delegation	
9)	Veeam DataLabs	Secure Restore SureBackup SureReplica Staged Restore On-Demand Sandbox On-Demand Sandbox for Storage Snapshots	
10)	Management	Support for VMware vSphere and Microsoft Hyper-V Built-in management for Veeam Agents vSphere Web Client Plug-ins Standalone console Guest file system indexing vCloud Director support Veeam Backup Enterprise Manager — Centralized Management Web UI Role-Based Access Control (RBAC)	
11)	Other capabilities	Multiple storage access options Changed block tracking File Manager Quick Migration Task Automation	

A.1.51 SAFECOM Enterprise Server License (unlimited servers)

#	Item	Minimum Software Requirements	Qty
1)	Type	Software, SAFECOM Enterprise Server License	
2)	Authentication	Users have to authenticate themselves when they log-in at the device. Authentication is when the SafeCom Server identifies a user as a recognized and approved user of the system and output device. Authentication protects against misuse and unauthorized use of company MFPs and printers.	
3)	Hardware integration	SafeCom supports two new secure card readers from Kofax, including the Kofax Ethernet Card Reader and the Kofax Micro Card Reader. Both card readers offer the same enhanced security with the added benefit of a flexible design that allows for a simpler installation and deployment.	
4)	Secure pull print	Send your documents to the SafeCom printer server and securely pick up your documents from any device, at any time.	
5)	Document encryption	With document encryption, protect your documents and data from being intercepted while traveling over the network.	
6)	Higher security	SafeCom utilizes industry standard TLS 1.2 encryption for secure communication between different SafeCom components for added security.	
7)	High availability	SafeCom can be configured and adapted to any print environment, whether in small or large and is resistant to network or server outages—users can continue to be productive even while network or server outages are present.	

#	Item	Minimum Software Requirements	Qty
8)	Tracking, reporting and analysis	Tracking and standard reporting capabilities provides a clear overview of your company's print, copy, scan, fax and e-mail activities, usage behavior and costs.	
9)	Rule-based printing	Enables organizations to implement printing rules in accordance with company print policies. This helps with saving toner and paper on specified types of document and applications.	
10)	Mobile print	Users have different methods of submitting jobs through the mobile solution, including the mobile app, email submission and web submission.	

A.1.52 SAFECOM Software Maintenance & Support, 1 year

#	Item	Minimum Software Requirements	Qty
1)	Type	Software, SAFECOM Software Maintenance & Support	

A.1.53 McAfee DLP License

#	Item	Minimum Software Requirements	Qty
1)	Type	Software, McAfee DLP License	
2)	Dynamic Application Containment	Defend against ransomware and greyware by securing endpoints that are used as entry points for attacks.	
3)	Antimalware Protection	Our antimalware engine is continually updated by McAfee Global Threat Intelligence and works across multiple operating systems.	
4)	Proactive Web Security	Ensure safe browsing with web protection and filtering for endpoints.	
5)	Security modules	<ul style="list-style-type: none"> • Threat Prevention — Prevents threats from accessing systems, scans files automatically when they are accessed, and runs targeted scans for malware on client systems. • Firewall — Monitors communication between the computer and resources on the network and the Internet. Intercepts suspicious communications. • Web Control — Monitors web searching and browsing activity on client systems and blocks websites and downloads based on safety rating and content. • Adaptive Threat Protection — Analyzes content from your enterprise and decides how to respond based on file reputation, rules, and reputation thresholds. Adaptive Threat Protection is an optional Endpoint Security module. 	
6)	Rollback Remediation	Automatically reverse malicious actions made by threats by returning them to their previous healthy state to keep your systems and users productive.	
7)	Machine Learning Analysis	Detect evasive zero-day threats in near real time by examining how they look and behave.	
8)	Centralized Management	The McAfee ePolicy Orchestrator console provides greater visibility, simplifies operations, unifies security, and reduces costs.	
9)	Last Modified	Displays the date and time stamp of the last changes to the settings.	

#	Item	Minimum Software Requirements	Qty
10)	Default Evidence Storage	Specifies the UNC path to the evidence storage folder. You can use the local system account (McAfee DLP Endpoint for Windows and McAfee DLP Discover). You can specify a user name and password to copy evidence.	
11)	Shared Password	Specifies the override password for uninstalling the software, removing files from quarantine, encrypting evidence, and temporary client bypass.	

A.1.54 iPhone 11 Pro Max

[48] The equipment shall meet the following prerequisites on the procurement process for any new iPhone devices that have to be enrolled into the Mobility solution:

- Devices have to be purchased directly from Apple or Apple Authorized Resellers / Carrier that are participating on the Apple Device Enrolment Program. Details about the Apple DEP here: <http://www.apple.com/business/dep>
- The devices have to be assigned by the supplier to the NATO DEP ID: 927338
- The supplier will provide their DEP ID for NATO to authorize the phones in the Apple DEP portal.

#	Item	Minimum Requirements	
1)	Finish	Space Grey	
2)	Capacity	256GB	
3)	Size and Weight	<ul style="list-style-type: none"> • Height: 6.22 inches (158.0 mm) • Width: 3.06 inches 77.8 mm) • Depth: 0.32 inch (8.1 mm) • Weight: 7.97 ounces (226 grams) 	
4)	Display	<ul style="list-style-type: none"> • Super Retina XDR display • 6.5- inch (diagonal) all- screen OLED Multi- Touch display • HDR display • 2688- by- 1242-pixel resolution at 458 ppi • 2,000,000:1 contrast ratio (typical) 	
5)	Splash, Water, and Dust Resistant	<ul style="list-style-type: none"> • Rated IP68 (maximum depth of 4 meters up to 30 minutes) under IEC standard 60529 	
6)	Chip	<ul style="list-style-type: none"> • A13 Bionic chip • Third- generation Neural Engine 	
7)	Camera	<ul style="list-style-type: none"> • Triple 12MP Ultra Wide, Wide, and Telephoto cameras • Ultra Wide: <i>f</i>/2.4 aperture and 120° field of view 	
8)	Video Recording	<ul style="list-style-type: none"> • 4K video recording at 24 fps, 30 fps, or 60 fps • 1080p HD video recording at 30 fps or 60 fps 	
9)	TrueDepth Camera	<ul style="list-style-type: none"> • 12MP camera • <i>f</i>/2.2 aperture 	
10)	Face ID	<ul style="list-style-type: none"> • Enabled by TrueDepth camera for facial recognition 	
11)	Cellular and Wireless	Model A2160* <ul style="list-style-type: none"> • FDD- LTE (Bands 1, 2, 3, 4, 5, 7, 8, 12, 13, 14, 17, 18, 19, 20, 25, 26, 29, 30, 66, 71) 	

#	Item	Minimum Requirements	
		<ul style="list-style-type: none"> • TD- LTE (Bands 34, 38, 39, 40, 41, 42, 46, 48) • CDMA EV- DO Rev. A (800, 1900 MHz) • UMTS/HSPA+/DC- HSDPA (850, 900, 1700/2100, 1900, 2100 MHz) • GSM/EDGE (850, 900, 1800, 1900 MHz) Model A2161*	
12)	External Buttons and Connectors	<ul style="list-style-type: none"> • Volume up/down • Ring/Silent switch • Side button • Built- in stereo speaker • Built- in microphone • Lightning connector • Built- in microphones • Built- in stereo speaker 	
13)	Power and Battery	<ul style="list-style-type: none"> • Lasts up to 4 hours longer than iPhone XS • 18W adapter included • Built-in rechargeable lithium-ion battery • Wireless charging (works with Qi chargers¹⁰) • Charging via USB to computer system or power adapter Fast-charge capable: <ul style="list-style-type: none"> • Up to 50% charge in around 30 minutes with 18W adapter or higher 	
14)	Sensors	<ul style="list-style-type: none"> • Face ID • Barometer • Three- axis gyro • Accelerometer • Proximity sensor • Ambient light sensor 	
15)	Operating System	<ul style="list-style-type: none"> • iOS 13 • iOS is the world's most personal and secure mobile operating system, packed with powerful features and designed to protect your privacy. 	
16)	Headphones	EarPods with Lightning Connector	
17)	SIM Card	<ul style="list-style-type: none"> • Dual SIM (nano- SIM and eSIM) • iPhone 11 Pro and iPhone 11 Pro Max are not compatible with existing micro- SIM cards. 	
18)	Rating for Hearing Aids	M3, T4	
19)	Environmental Requirements	<ul style="list-style-type: none"> • Operating ambient temperature: 32° to 95° F (0° to 35° C) • Nonoperating temperature: -4° to 113° F (-20° to 45° C) • Relative humidity: 5% to 95% noncondensing • Operating altitude: tested up to 10,000 feet (3000 m) 	
20)	Language & Keyboard Support	<ul style="list-style-type: none"> • English (UK, U.S.), French 	
21)	In the Box	<ul style="list-style-type: none"> • iPhone with iOS 13 • EarPods with Lightning Connector 	

#	Item	Minimum Requirements
		<ul style="list-style-type: none"> • USB-C to Lightning Cable • 18W USB-C Power Adapter • Documentation

A.1.55 iPad Pro 12.9- inch

[49] The equipment shall meet the following prerequisites on the procurement process for any new iPhone devices that have to be enrolled into the Mobility solution:

- Devices have to be purchased directly from Apple or Apple Authorized Resellers / Carrier that are participating on the Apple Device Enrolment Program. Details about the Apple DEP here: <http://www.apple.com/business/dep>
- The devices have to be assigned by the supplier to the NATO DEP ID: 927338
- The supplier will provide their DEP ID for NATO to authorize the phones in the Apple DEP portal.

#	Item	Minimum Requirements
1)	Finish	Space Gray
2)	Capacity	128GB
3)	Size and Weight	<ul style="list-style-type: none"> • 11.04 inches (280.6 mm) • 8.46 inches (214.9 mm) • 0.23 inch (5.9 mm) • Wi-Fi + Cellular models: 1.42 pounds (643 grams)
4)	Buttons and Connectors	<ul style="list-style-type: none"> • Speaker • Three microphones • Speaker • Top button • Volume up/down • Camera • Microphone • Magnetic connector • Nano- SIM tray • Smart Connector • USB- C connector • Speaker • Microphone
5)	In the Box	<ul style="list-style-type: none"> • iPad Pro • USB-C Charge Cable (1 meter) • 18W USB-C Power Adapter
6)	Display	<ul style="list-style-type: none"> • Liquid Retina display • 12.9-inch (diagonal) LED-backlit Multi- Touch display with IPS technology • 2732-by-2048-pixel resolution at 264 pixels per inch (ppi)
7)	Chip	<ul style="list-style-type: none"> • A12Z Bionic chip with 64-bit architecture • Neural Engine • Embedded M12 coprocessor

#	Item	Minimum Requirements
8)	Camera	<ul style="list-style-type: none"> • Wide: 12MP, <i>f</i>/1.8 aperture • Ultra Wide: 10MP, <i>f</i>/2.4 aperture, and 125° field of view • 2x optical zoom out; digital zoom up to 5x • Five- element lens (Wide and Ultra Wide) • Brighter True Tone flash • Panorama (up to 63MP)
9)	Video Recording	<ul style="list-style-type: none"> • 4K video recording at 24 fps, 30 fps, or 60 fps (Wide); 60 fps (Ultra Wide) • 1080p HD video recording at 30 fps or 60 fps • 720p HD video recording at 30 fps • Brighter True Tone flash
10)	Video Calling	<ul style="list-style-type: none"> • FaceTime video • iPad to any FaceTime-enabled device over Wi-Fi or cellular
11)	Audio Calling	<ul style="list-style-type: none"> • FaceTime audio • iPad to any FaceTime-enabled device over Wi-Fi or cellular
12)	Speakers	<ul style="list-style-type: none"> • Four speaker audio
13)	Microphones	<ul style="list-style-type: none"> • Five studio-quality microphones for calls, video recording, and audio recording
14)	Cellular and Wireless	<p>All models</p> <ul style="list-style-type: none"> • 802.11ax Wi-Fi 6; simultaneous dual band (2.4GHz and 5GHz); HT80 with MIMO • Bluetooth 5.0 technology <p>Wi-Fi + Cellular models</p> <ul style="list-style-type: none"> • UMTS/HSPA/HSPA+/DC - HSDPA (850, 900, 1700/2100, 1900, 2100 MHz); GSM/EDGE (850, 900, 1800, 1900 MHz) • Gigabit-class LTE (Models A2068 and A2069: bands 1, 2, 3, 4, 5, 7, 8, 12, 13, 14, 17, 18, 19, 20, 25, 26, 29, 30, 34, 38, 39, 40, 41, 42, 46, 48, 66, 71) • Data only • Wi-Fi calling • eSIM
15)	SIM Card	<ul style="list-style-type: none"> • Nano- SIM (supports Apple SIM) • eSIM
16)	Location	<ul style="list-style-type: none"> • All models • Digital compass • Wi-Fi • iBeacon microlocation • Wi-Fi + Cellular models • Built- in GPS/GNSS • Cellular
17)	Sensors	<ul style="list-style-type: none"> • Face ID • LiDAR Scanner • Three-axis gyro • Accelerometer • Barometer • Ambient light sensor
18)	Face ID	<ul style="list-style-type: none"> • Enabled by TrueDepth camera for facial recognition • Unlock iPad • Secure personal data within apps

#	Item	Minimum Requirements
		<ul style="list-style-type: none"> • Make purchases from the iTunes Store, App Store, and Apple Books
19)	Apple Pay	<ul style="list-style-type: none"> • Pay with your iPad using Face ID within apps and on the web • Send and receive money in Messages
20)	Siri	<ul style="list-style-type: none"> • Use your voice to send messages, set reminders, and more • Get proactive suggestions • Use hands-free • Listen and identify songs
21)	Charging and Expansion	USB-C
22)	Power and Battery	iPad Pro 12.9-inch <ul style="list-style-type: none"> • Built-in 36.71-watt-hour rechargeable lithium-polymer battery All models <ul style="list-style-type: none"> • Up to 10 hours of surfing the web on Wi-Fi or watching video • Charging via power adapter or USB-C to computer system Wi-Fi + Cellular models <ul style="list-style-type: none"> • Up to 9 hours of surfing the web using cellular data network
23)	Operating System	<ul style="list-style-type: none"> • iPadOS • iPadOS comes with powerful features and built-in apps designed to take advantage of the unique capabilities of iPad.
24)	Accessibility	Features include: <ul style="list-style-type: none"> • VoiceOver • Voice Control • Zoom • Magnifier • Siri and Dictation • Switch Control • Closed Captions • AssistiveTouch • Speak Screen
25)	Languages & Keyboard	<ul style="list-style-type: none"> • English (UK, U.S.), French.
26)	Environmental Requirements	Operating ambient temperature: <ul style="list-style-type: none"> • 32° to 95° F (0° to 35° C) Nonoperating temperature: <ul style="list-style-type: none"> • -4° to 113° F (-20° to 45° C) Relative humidity: <ul style="list-style-type: none"> • 5% to 95% noncondensing Operating altitude: <ul style="list-style-type: none"> • tested up to 10,000 feet (3000 m)
27)	Overview	<ul style="list-style-type: none"> • Smart Keyboard Folio for the 11-inch iPad Pro • Full-size keyboard when you need it to be, provides elegant front and back protection when you don't, and allows for convenient viewing angles. And with no charging or pairing required, just attach the keyboard and start typing.
28)	Compatibility	iPad Models iPad Pro 11-inch (2nd generation) iPad Pro 11-inch (1st generation)

A.1.56 NU VTC System

[50] The NU VTC System shall be a Poly Medialign 86 GS500.

#	PID	Minimum Requirements	Qty
1)	7230-86010-125	Poly Medialign 86 GS500 GS500 – must be TAA Compliant	1
2)	4877-86010-513	Polycom Advantage, One Year, Poly Medialign GS500	1
3)	2215-00286-003	Power Cord: EURO, RUSSIA-Type C, CE 7/7	1

A.1.57 NS VTC System – “small” room

[51] The NS VTC System shall be a Poly Medialign 65 GS500.

#	PID	Minimum Requirements
1)	7230-85990-125	Poly Medialign 65 GS500 GS500 – must be TAA Compliant
2)	4877-85990-513	Polycom Advantage, One Year, Poly Medialign GS500
3)	2215-00286-003	Power Cord: EURO, RUSSIA-Type C, CE 7/7
	TPST	Certified and provided with SDIP-27 Level B/C TEMPEST Certificate (As indicated in RFQ Bidding Sheet)

A.1.58 NS VTC System – “large” room

[52] The NS VTC System shall be Poly GS700 based.

#	PID	Minimum Requirements
1)	G7200-64270-001	RealPresence Group 700-720p, each includes: Group 700 HD codec EagleEyeIV-12x camera Microphone array Remote control 1 x HDMI 1.8m cable 1 x CAT 5E LAN 3.6m Power adapter
2)	2215-00286-003	Power Cord: EURO, RUSSIA-Type C, CE 7/7
3)	4877-64270-513	Polycom Advantage, One Year, RealPresence Group 700-720p

#	PID	Minimum Requirements
4)	8200-64350-001	EagleEye IV-12x Camera
5)	4877-64350-513	Polycom Advantage, One Year, EagleEye IV-12x Camera
6)	2200-23809-001	Ceiling Microphone array-Black "Primary"
7)	2200-23810-001	Ceiling Microphone Array - Black "Extension" Kit
8)	C2G-50633	HDMI Cable, 7m
9)	C2G-50634	HDMI Cable, 10m
10)	7230-65878-125	Stereo Speaker kit, 110-220v, each includes:
		2 * 60w Satellite speakers
		1 * 150w subwoofer
		fuses for both 120 or 240v power source
		speaker stands
		3.5mm to 2xRCA, 3.5mm to 3.5mm and speaker wire
	TPST	Certified and provided with SDIP-27 Level B/C TEMPEST Certificate (As indicated in RFQ Bidding S

A.1.59 1Gb SFP Fibre Network Interface Card

#	Item	Minimum Requirements	Qty
1)		AT-2914SP Fibre PCI-E Gigabit Fibre NIC for SFP	1
2)		AT-SPEX SFP Module , LC, MM, 1310 nm	1